

PROJECT MANUAL

FOR

RFP #2020-07

D.W.T.P. SECTION 3 FILTER CONTROL VALVE REPLACEMENT

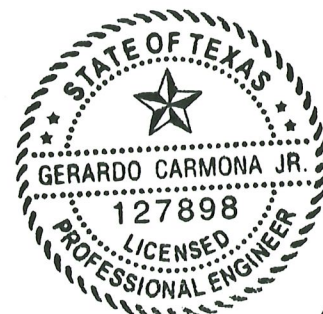
FOR THE

CITY OF EDINBURG



2020

City of Edinburg
415 W. University Drive
Edinburg, Texas 78539
(956) 388-8211



Gerardo Carmona Jr.

10/19/2020

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City of Edinburg
415 W. University Drive
Edinburg, Texas 78539
(956) 388-8211

Document 00001

TITLE SHEET

PROJECT MANUAL
FOR
CITY OF EDINBURG
D.W.T.P. SECTION 3 FILTER CONTROL VALVE REPLACEMENT

FOR

EDINBURG, TEXAS

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Document 00003

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*1 For newspaper publication; not included as part of Project Manual.

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REQUEST FOR PROPOSALS

The City of Edinburg is soliciting sealed Request for Proposals; hereinafter referred to as RFP No. 2020-07, to be received by the City Secretary's Office located at 415 W. University Drive, Edinburg, Texas 78539. City of Edinburg normal business days are Monday through Friday between the hours of 8:00 a.m. to 5:00 p.m. and shall be closed on recognized holidays. A site visitation for the project will be held on November 9, 2020 at 2pm at 500 E. Mahl St. Edinburg, TX. A **pre-bid conference** will be conducted by the Owner /Engineer on November 10, 2020 at 11am. The pre-bid conference shall be conducted via ZOOM Video Conferencing:

<https://us02web.zoom.us/j/88434551989?pwd=eFNScTJUem5idFhBOTIiWU9YZEtlZ09>

(346) 248-7799 US (Houston)

Meeting ID: 884 3455 1989

Passcode: 710395

Attendance by prospective Bidders is recommended for all general contractors submitting bids. Sub-contractors, suppliers, and equipment suppliers may attend.

RFP'S will be received until 3:00 p.m. Central Time, on Monday, November 16, 2020, shortly thereafter all submitted RFP'S will be gathered and taken to the Edinburg City Hall Community Room, 1st Floor, to be publicly opened and read aloud via Zoom Video Conferencing:

<https://us02web.zoom.us/j/81013973171?pwd=TjM0c2FDVlhXSHNyaXpHRDFBTll3dz09>

(346) 248-7799 US (Houston)

Meeting ID: 810 1397 3171

Passcode: 392347

Any RFP received after the closing time will not be accepted and will be returned to the submitter unopened. It is the responsibility of the submitter to see that any RFP submitted shall have sufficient time to be received by the City Secretary's Office prior to the RFP opening date and time. The receiving time in the City Secretary's Office will be the governing time for acceptability of the RFP's. RFP's will not be accepted by telephone or facsimile machine. All RFP'S must bear original signatures and figures. The RFP shall be for:

RFP # 2020-07

D.W.T.P. SECTION 3 FILTER CONTROL VALVE REPLACEMENT

Bidders receiving a "NOTICE TO BIDDERS" and/or "REQUEST FOR PROPOSALS" notice in the mail or reading same in the newspaper are advised that the bidding documents may be obtained from the City of Edinburg web page address: www.cityofedinburg.com, or may obtain copies by contacting the office of: LORENA FUENTES, PURCHASING AGENT, LOCATED AT 415 W. UNIVERSITY DRIVE, EDINBURG, TEXAS 78539 by calling (956) 388-1895 or by emailing your request to the following address: lfuentes@cityofedinburg.com. General and/or Prime Contractors submitting bids and/or proposals to the City of Edinburg shall be non-refundable.



Plans, proposal forms, specifications, and contract documents may be purchased from the Engineering Department, Engineer of Record or are available for printing at http://cityofedinburg.com/departments/finance/open_bid_notices.php. Copies of the plans and specifications may be examined without charge at the following location:

City of Edinburg
Engineering Department – 2nd Floor
415 W. University Drive
Edinburg, Texas 78539

Hand Delivered RFB'S: 415 W. University Drive
C/o City Secretary Department (1st Floor)

If using Land Courier (i.e. FedEx, UPS): City of Edinburg
C/o City Secretary
415 W. University Drive
Edinburg, Texas 78539

If Mailing Proposals: City of Edinburg
C/o City Secretary
P.O. Box 1079
Edinburg, Texas 78540-1079

The City of Edinburg reserves the right to refuse and reject any or all RFP's and to waive any or all formalities or technicalities and to accept the RFP deemed most advantageous to the City, and hold the RFP's for a period of **90** days without taking action.

RFP's must be submitted in an envelope sealed with tape and prominently marked on the lower left hand corner of the envelope with corresponding RFP number and title.

Please read your requirements thoroughly and be sure that the RFP offered complies with all requirements/specifications noted. Any variation from the solicitation requirements/specifications must be clearly indicated by letter, on a point by point basis, attached to and made a part of your RFP. If no exceptions are noted, and you are the successful respondent, it will be required that the service(s) be provided as specified.

PURPOSE

(1) The purpose of these solicitation documents is to provide a proposal for FILTER CONTROL VALVE REPLACEMENT Improvements for:

D.W.T.P. Section 3 Filter Control Valve Replacement

INTENT

(2) The services to be provided under this RFP shall be in accordance with and shall meet all specifications and/or requirements as shown in this solicitation for RFP. There is no intention to disqualify any respondent who can meet the requirements.

SUBMITTAL OF RFP

(3) RFPs shall be submitted in sealed envelopes as referenced on the attached solicitation. Four

(4) complete sets of the response, one (1) original marked “**ORIGINAL**,” and three (3) copies marked “**COPY**”. RFPs submitted by facsimile (fax) or electronically shall **NOT** be accepted. Submittal of an RFP in response to this solicitation constitutes an offer by the respondent. Once submitted, RFP’s become the property of the City of Edinburg and as such the City reserves the right to use any ideas contained in any RFP regardless of whether that respondent/firm is selected. Submission of a RFP in response to this solicitation, by any respondent, shall indicate that the respondent(s) has/have accepted the conditions contained in the RFP, unless clearly and specifically noted in the RFP submitted and confirmed in the contract between the City and the successful respondent otherwise. RFPs which do not comply with these requirements may be rejected at the option of the City. RFPs must be filed with the City of Edinburg before the deadline day and hour. No late RFPs will be accepted. They will be returned to respondent unopened (if properly identified). Failure to meet RFP requirements may be grounds for disqualification.

Hand Delivered RFP’S: 415 W. University Drive
c/o City Secretary Department (1st Floor)

If using Land Courier (i.e. FedEx, UPS): City of Edinburg
c/o City Secretary
415 W. University Drive
Edinburg, Texas 78541

If Mailing RFP’s: City of Edinburg
c/o City Secretary
P.O. Box 1079
Edinburg, Texas 78540-1079

RFP DOCUMENTS: Copies of the RFP Documents, including Drawings, Contract Documents and Technical Specifications may be obtained at the City of Edinburg Engineering Department office at 415 W. University Drive Edinburg, Texas 78541 for a fee as adopted by the City of Edinburg’s Master Fee Schedule.

TIME ALLOWED FOR ACTION TAKEN

(4) The City of Edinburg may hold RFP/s 90 days after deadline without taking action. Respondents are required to hold their RFP/s firm for same period of time.

RIGHT TO REJECT/AWARD

(5) The City of Edinburg reserves the right to reject any or all RFPs, to waive any or all formalities or technicalities, and to make such awards of contract as may be deemed to be the best and most advantageous to the City of Edinburg.

ASSIGNMENT

(6) Respondents are advised that the City of Edinburg shall not allow the successful respondent to sell, assign, transfer, or convey any part of any contract resulting from this RFP in whole or in part, to a third party without the written approval of the City of Edinburg.

AWARD



(7) Respondents are advised that the City of Edinburg is soliciting RFPs and award shall be made to the respondent that in the opinion of the City of Edinburg is the best qualified.

NUMBER OF CONTRACTS

(8) THE CITY reserves the right to award one or no contract in response to this RFP.

STATUTORY REQUIREMENTS

(9) It shall be the responsibility of the successful respondent to comply with all applicable State & Federal laws, Executive Orders and Municipal Ordinances, and the Rules and Regulations of all authorities having jurisdiction over the work to be performed hereunder and such shall apply to the contract throughout, and that they will be deemed to be included in the contract as though written out in full in the contract documents.

ALTERATIONS/AMENDMENTS TO RFP

(10) RFP **CANNOT** be altered or amended after opening time. Alterations made before opening time must be initialed by respondent guaranteeing authenticity. No RFP may be withdrawn after opening time without acceptable reason in writing and only after approval by the City of Edinburg.

NO RESPONSE TO RFP

(11) If unable to submit a RFP, respondent should return inquiry giving reasons.

LIST OF EXCEPTIONS

(12) The respondent shall attach to his/her RFP a list of any exceptions to the specifications/requirements.

PAYMENT

(13) The City of Edinburg will execute payment by mail in accordance with the State of Texas Pay Law after SERVICES have been completed, introduced to the City, and found to meet City of Edinburg specifications/requirements. No other method of payment will be considered.

SYNONYM

(14) Where in this solicitation package SERVICES is used, its meaning shall refer to the request for the D.W.T.P. Section 3 Filter Control Valve Replacement as specified.

RESPONDENT'S EMPLOYEES

(15) Neither the Respondent nor his/her employees engaged in fulfilling the terms and conditions of this Service Contract shall be considered employees of the City. The method and manner of performance of such undertakings shall be under the exclusive control of the vendor on contract. The City shall have the right of inspection of said undertakings at any time.

INDEMNIFICATION CLAUSE

(16) The Respondent agrees to indemnify and save harmless the City, from all suits and actions of every nature and description brought against them or any of them, for or on account of the use of patented appliances, products or processes, and he shall pay all royalties and charges which are legal and equitable. Evidence of such payment or satisfaction shall be submitted upon request of the Purchasing Agent, as a necessary requirement in connection with the final estimate for

payment in which such patented appliance, products or processes are used

INTERPRETATIONS

(17) Any questions concerning the project and/or specifications/requirements with regards to this solicitation for statement(s) of qualifications shall be directed to the designated individuals as outlined in the RFP. Such interpretations, which may affect the eventual outcome of this request for statements of qualifications, shall be furnished in writing to all prospective Respondents via Addendum. No interpretation shall be considered binding unless provided in writing by the City of Edinburg in accordance with paragraph entitled "**Addenda and Modifications**".

VERBAL THREATS AND OFFICIAL CONTACT

(18) Any threats made to any employee of the City, be it verbal or written, to discontinue the providing of item/material/services for whatever reason and/or reasons shall be considered a breach of contract and the City will immediately sever the contract with the Respondent/Consultant on contract.

Respondents shall not offer gratuities, favors or any monetary value to any official or employee of the City for purpose of influencing the selection. Any attempt by any Respondent to influence the selection process by any means, other than disclosure of qualifications and credentials through the proper channels, shall be grounds from exclusion from the selection process. Once the project is advertised, there shall be no contact with any city official or employee unless using the formal process through the Purchasing Department. Failure to comply will result in the firm being disqualified from the process.

Questions and answers that change or substantially clarify the Request for Proposals will be affirmed in writing and copies will be provided to all firms on record responding to RFP. Any inquiries to this RFP must be submitted Ms. Lorena Fuentes, Purchasing Agent, at (956) 388-1895 or at the following e-mail address: lfuentes@cityofedinburg.com no later than **November 11, 2020 by 5:00 pm**.

CONFIDENTIAL INFORMATION

(19) Any information deemed to be confidential by the respondent should be clearly noted on the pages where confidential information is contained; however, the City cannot guarantee that it will not be compelled to disclose all or part of any public record under Texas Public Information Act, since information deemed to be confidential by the respondent may not be considered confidential under Texas Law, or pursuant to a Court order.

PAST PERFORMANCE

(20) Respondent's past performance shall be taken into consideration in the evaluation of RFP submittal.

JURISDICTION

(21) Contract(s) executed as part of this solicitation shall be subject to and governed under the laws of the State of Texas. Any and all obligations and payments are due and performable and payable in Hidalgo County, Texas.

RIGHT TO AUDIT

(22) The City of Edinburg reserves the right to audit the vendor's books and records relating to the performance of this contract. The City of Edinburg, at its own expense, shall have the right at all reasonable times during normal business hours and upon at least twenty-four (24) hours' advance notice, to audit, to examine, and to make copies of or extracts from the books of account and records maintained by the vendor(s) with respect to the Supply/Service and/or Purchase Contract. If such audit shall disclose overpayment by City to vendor, written notice of such overpayment shall be provided to the vendor and the amount of overpayment shall be promptly reimbursed by vendor to the City. In the event any such overpayment is not paid within ten (10) business days after receipt of such notice, the unpaid amount of such overpayment shall bear interest at the rate of one percent (1%) per month from the date of such notice until paid.

VENUE

(23) The parties agree that venue for purposes of any and all lawsuits, cause of action, and/or any other dispute(s) shall be in Hidalgo County, Texas.

IF YOU HAVE ANY QUESTIONS ABOUT COMPLIANCE, PLEASE CONSULT YOUR OWN LEGAL COUNSEL. COMPLIANCE IS THE INDIVIDUAL RESPONSIBILITY OF EACH PERSON OR AGENT OF A PERSON WHO IS SUBJECT TO THE FILING REQUIREMENT. AN OFFENSE UNDER CHAPTER 176 IS A CLASS "C" MISDEMEANOR.

CONFLICT OF INTEREST

(24) CHAPTER 176 OF THE TEXAS LOCAL GOVERNMENT CODE

Effective January 1, 2006, Chapter 176 of the Texas Local Government Code requires that any vendor or person considering doing business with a local government entity disclose in the Questionnaire Form CIQ, the vendor or person's affiliation or business relationship that might cause a conflict of interest with a local government entity. By law, this questionnaire must be filed with the records administrator of the City of Edinburg not later than the 7th business day after the date the person becomes aware of facts that require the statement be filed. See Section 176.006, Local Government Code. A person commits an offense if the person violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor. For more information or to obtain Questionnaire CIQ go to the Texas Ethics Commission web page at www.ethics.state.tx.us/forms/CIQ.pdf.

CERTIFICATE OF INTERESTED PARTIES (Form 1295)

(25) In 2015, the Texas Legislature adopted [House Bill 1295](#), which added section 2252.908 of the Government Code. The law states that a governmental entity or state agency may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties to the governmental entity or state agency at the time the business entity submits the signed contract to the governmental entity or state agency. The law applies only to a contract of a governmental entity or state agency that either (1) requires an action or vote by the governing body of the entity or agency before the contract may be signed or (2) has a value of at least \$1 million. The disclosure requirement applies to a contract entered into on or after January 1, 2016. For more information go to the Texas Ethics Commission web page at www.ethics.state.tx.us/forms/CIQ.pdf.

CONFIDENTIALITY OF INFORMATION AND SECURITY

(26) Should the successful respondent become the holder of and have access to confidential information in the process of fulfilling its responsibilities in connection with an awarded contract the successful respondent agrees that it shall keep such information confidential and will comply fully with the laws and regulations of the State of Texas, ordinances and regulations of the City, and any applicable federal laws and regulations relating to confidentiality.

TERMINATION OF CONTRACT

(27) The City of Edinburg reserves the right to terminate the contract if, in the opinion of the City of Edinburg, the successful vendor’s performance is not acceptable, no funds are available, or if the City wishes, without cause, to discontinue this contract. Termination will be in written form allowing a 30-day notice.

RESPONSE DEADLINE

(28) Responses to the RFP must be addressed to City Secretary, City of Edinburg, 415 W. University Drive by **Monday, November 16, 2020 until 3:00 p.m.** for consideration. **An (1) original and three (3) copies** of complete sets of the response must be submitted no later than this date and time in a **sealed envelope** indicating that its contents are in response to the RFP for the **“D.W.T.P. Section 3 Filter Control Valve Replacement”**. **Respondents are advised that all confidential records must be submitted in a separate sealed envelope and marked accordingly.**

Hand Delivered RFP’s: 415 W. University Drive
c/o City Secretary Department (1st Floor)

If using Land Courier (i.e.FedEx, UPS): City of Edinburg
c/o City Secretary
415 W. University Drive
Edinburg, Texas 78541

If Mailing RFPs: City of Edinburg
c/o City Secretary
P.O. Box 1079
Edinburg, Texas 78540-1079

ADDENDA AND MODIFICATIONS

(29) Any changes, additions, or clarifications to the RFP are made by amendments (addenda). Any respondent in doubt as to the true meaning of any part of the RFP or other documents may request an interpretation from the Purchasing Division. At the request of the respondent, or in the event the Purchasing Division deems the interpretation to be substantive, the interpretation will be made by written addendum. Said Addenda shall be mailed, e-mailed, hand delivered and/or faxed, to all prospective respondents. All Addenda issued in respect to this RFP shall be considered official changes to the original documents. Verbal statements in response to inquiries and/or requests for explanations shall not be authoritative or binding. It shall be the respondent’s responsibility to



ensure that they have received all Addenda in respect to this project. Furthermore, respondents are advised that they must recognize, comply with, and attach a signed copy of each Addendum which shall be made part of their RFP Submittal. Respondent(s) signature on Addenda shall be interpreted as the respondent's "recognition and compliance to" official changes as outlined by the City of Edinburg and as such are made part of the original solicitation documents. Failure of any respondent to receive any such addendum or interpretation shall not relieve such respondent from its terms and requirements. The City may issue a written addendum no later than five calendar days prior to the date bids must be received. Addendums are available online at www.cityofedinburg.com.

RFP PREPARATION COSTS

(30) The City of Edinburg shall not be held liable for any costs incurred by any respondent for work performed in the preparation of and production of a RFP or for any work performed prior to execution of contract.

EQUAL EMPLOYMENT OPPORTUNITY

(31) Respondent agrees that they will not discriminate in hiring, promotion, treatment, or other terms and conditions of employment based on race, sex, national origin, age, disability, or in any way violate Title VII of 1964 Civil Rights Act and amendments, except as permitted by said laws.

AUTHORIZATION TO BIND RESPONDENT TO RFP

(32) RFPs MUST give full firm name and address of respondent, and be manually signed. Failure to do so will disqualify your RFP. Person signing bid must show title or AUTHORITY TO BIND HIS/HER FIRM IN A CONTRACT. Firm name and authorized signature must appear on each page that calls for this information. The legal status of the Respondent whether corporation, partnership, or individual, shall also be stated in the RFP. A corporation shall execute the RFP by its duly authorized officers in accordance with its corporate by-laws and shall also list the state in which it is incorporated. A partnership Respondent shall give full names and addresses of all partners. All partners shall execute the RFP. Partnership and Individual Respondent shall state in the proposal the names and addresses of all persons with a vested interest therein. The place of residence of each Respondent, or the office address in the case of a firm or company, with county and state and telephone number, shall be given after the signature.

BRAND OR MANUFACTURER REFERENCE

(33) Unless otherwise specified, any catalog or manufacturer's reference or brand name used in describing an item is merely descriptive, and not restrictive, and is used only to indicate type and style of product desired. Proposals on alternate brands will be considered if they meet specification requirements. If a bidder quotes on equipment other than the one(s) specified in the bid, sufficient specifications and descriptive (pictured literature) data must accompany same to permit thorough evaluation. In the absence of these qualifications, he/she will be expected to furnish the product called for.

COOPERATIVE PRICING

(34) Bidders are advised that in addition to responding to our "local" solicitation for bids/Bids with Dealer pricing, vendors/contractors are encouraged to provide pricing on the below referenced items/products/services based on BuyBoard, TX-MAS, H-GAC and/or any other State of Texas

recognized and approved cooperative which has complied with the bidding requirements for the State of Texas. If bidding other than or in addition to “dealer” pricing, kindly duplicate the bid forms for each bid being provided from a cooperative contract. Any and all applicable fees must be included. All cooperative pricing must be submitted on or before bid opening date and hour.

HB 89

(35) The 85th Texas Legislature approved new legislation, effective Sept. 1, 2017, which amends Texas Local Government Code Section 1. Subtitle F, Title 10, Government Code by adding Chapter 2270 which states that a governmental entity may not enter into a contract with a company for goods or services unless the contract contains a written verification from the company that it:

- 1) does not boycott Israel; and
- 2) will not boycott Israel during the term of the contract

Confidential Information Respondents are advised that all confidential records must be submitted in a separate sealed envelope and marked accordingly.

SECTION I SCOPE OF THE PROPOSAL

INTRODUCTION

The purpose of the RFP is to solicit and obtain from interested parties (also referred to herein as “Vendor” or “Vendors”) the best possible proposal for the D.W.T.P. Section 3 Filter Control Valve Replacement. The City of Edinburg intends to select the most competitive proposal that meets the City’s requirements and specifications listed within the proposal and then enter into negotiations with the Vendor/s for purposes of reaching a satisfactory agreement for the City for the D.W.T.P. Section 3 Filter Control Valve Replacement.

BACKGROUND

The City of Edinburg D.W.T.P. Section 3 Filter Control Valve Replacement project will mitigate maintenance issues occurring within the project area and improve current water treatment plant conditions.

SCOPE OF WORK

The City is soliciting competitive proposals from experienced and qualified companies for the D.W.T.P. Section 3 Filter Control Valve Replacement project. The project will improve maintenance issues in the area and will improve current water treatment plant conditions by upgrading valves, actuators, compressed air equipment and controls.

ADDITIONAL INFORMATION

The City of Edinburg is requesting that RFP’s (Request for Proposal) be routed to: The CITY Secretary, at 415 West University, Edinburg, Texas 78541.

NON-COLLUSION

Submitters, by submitting a signed submission, certify that the accompanying submission is not the result of, or affected by, any unlawful act of collusion with any other person or company engaged in the same line of business or commerce, or any other fraudulent act punishable under Texas or United States law.

NON-DISCRIMINATION

Submitters, during the performance of this contract, will not discriminate against any employee or applicant for employment because of race, religion, sex, national origin or disability except where religion, sex, national origin or disability is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor.

PROCESSING TIME FOR PAYMENT

Submitters are advised that a minimum of thirty (30) days is required to process invoices for payment.

ELECTRONIC SUBMISSION OF BIDS

The City of Edinburg’s City Secretary Department will not accept telegraphic or electronically transmitted submissions.

PROOF OF FINANCIAL AND BUSINESS CAPABILITY

Submitters must, upon request, furnish satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these requirements. The CITY will make the final determination as to the submitter's ability.

SUBMITTER DEFAULT

The City of Edinburg reserves the right, in case of submitter default, to procure the articles or services from other sources and hold the defaulting submitter responsible for any excess costs occasioned thereby.

RESTRICTIVE OR AMBIGUOUS REQUIREMENTS

It is the responsibility of the submitter to review the Request for Proposals (RFP) packet and to notify the City Engineering Department if the requirements are formulated in a manner that would unnecessarily restrict competition. Any such protest or question regarding the requirements or bidding procedures must be received in the City Secretary Department not less than seventy-two hours prior to the time set for the opening. These criteria also apply to requirements that are ambiguous.

RFP DELIVERY

The City of Edinburg requires submitters, when hand-delivering proposals by **3:00 pm on November 16, 2020**, to have a City Secretary Department representative time/date stamp and initial the envelope.

SIGNING OF PROPOSALS

In order to be considered, all submittals **must** be signed.

WAIVING OF INFORMALITIES

THE CITY reserves the right to waive minor informalities or technicalities when it is in the best interest of THE CITY.

SUBCONTRACTING

The successful submitter may not subcontract the award without the written consent of the City.

BIDDER RESPONSIBILITY

It is the responsibility of each vendor before submitting a proposal:

- To examine thoroughly the contract documents and other related data identified in the proposal documents.
- To visit the site to become familiar with and satisfy vendor as to the general, local, and site conditions that may affect cost, progress, performance, etc.
- To consider federal, state, and local laws and regulations that may affect costs, progress, performance or furnishing of the work.

- To study and carefully correlate vendor's knowledge and observations with the contract documents and such other related data.
- To promptly notify THE CITY Purchasing of all conflicts, errors, ambiguities, or discrepancies which vendor has discovered in or between the contract documents and such other related documents.

TERMINATION

THE CITY has the authority and express right to terminate any Agreement awarded under this RFP or any Work Order resulting from the Agreement at any time for any reason, including but not limited to, instances where THE CITY finds that the Contractor's work is negligent, not satisfactory, or not in accordance with the Agreement requirements.

SECTION II RFP REQUIREMENTS

PURPOSE

The intent of this Request for Proposal and resulting contract is to obtain proposals to the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT Project.

REQUEST FOR PROPOSALS

The required contents and limitations for the preparation of the RFP are described in this section. Failure to provide the requested information or adhere to any of The CITY limitations will result in disqualification of the submitted RFP. A total of **one (1) original and three (3) copies** of the RFP shall be submitted to the address on the cover letter. Letter of Intent from Surety Company to provide Payment and Performance Bonds shall also be required from the proposer as part of RFP.

SUBMITTAL

For proper comparison and evaluation, THE CITY requests that proposals address, at a minimum, the following format.

- 1) **Cover Letter** - A brief introductory letter of representation.
- 2) **Executive Summary** - A brief summary highlighting the most important points of the proposal. If used, the Summary should not exceed five pages.
- 3) **Degree of Compliance** - A statement that all products and services quoted in proposal is in full accord with the specifications or a brief listing of all those specification sections to which the Proposer takes exception. All explanations, exceptions, comments, etc., pertaining to the specific sections of the specifications shall be listed and numbered in order of the respective article of the specification.

CONTENTS

The required contents for the RFP are presented below in the order they should be incorporated into the submitted document.

- 1) **UNDERSTANDING OF THE PROJECT:** This section should demonstrate the submitter's understanding of the project's needs, the work required, and any local issues or concerns. This description should be concise, candid, and limited to 2 pages in length.
- 2) **FIRM QUALIFICATIONS, PERSONNEL AND STAFFING (00420 Statement of Bidder's Qualifications):** The CITY is seeking a contract with a competent firm(s); with a minimum of 5 years' experience of installation of the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT.
 - a) **Qualifications:**
 - i) List Firm's qualifications and ability to perform the service requirements.

- ii) List qualifications of key personnel to be assigned to this project, including but not limited to education, training, registrations, certifications and licenses.

b) Experience:

- i) Number of years of experience as a General Contractor.
- ii) Relevant experience with projects of similar size and scope performed over the past five (5) years. For each project listed, date services provided and name, titles, and telephone numbers of each client or client's representative.
- iii) Specific experience with public entity clients, especially large municipalities. If company submitting proposal for new construction has provided services to the CITY in the past, identify the name of the project and the department for which services were provided.
- iv) If company submitting proposal for this project is submitting as a team or joint venture, provide the same information for each member of the team or joint venture.
- v) Provide the following information for key personnel to be assigned to this project:
 - (1) Total years' experience.
 - (2) Primary work assignment for the projects outlined in this RFP.
 - (3) Relevant experience with projects of similar size and scope.

c) Previous Project Performance:

- i) Provide evidence of satisfactory performance on past projects
- ii) List past assignments over the past five (5) years
- iii) Provide copies of outstanding service letters, letters of commendation, service awards, etc.
- iv) Provide five recent references who may be contacted to verify performance of similar services. For each reference, provide a current phone number and e-mail address. References may not be present or former CITY employees.

d) Quality of Service:

- i) Company submitting proposal for the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT – Availability: Identify any concurrent or near future commitment that would impede the firm's ability to perform this contract.
- ii) Describe company submitting proposal for the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT policies, procedures and plans to ensure quality services (continuing education, on-going training, internal quality practices, etc.)
- iii) If company submitting proposal for the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT has ever had a contract terminated or has been dismissed due to

alleged unsatisfactory performance, state when, where and why the contract was terminated and/or Security Consultant dismissed, the client's name, and the contact person's phone number.

- 3) **Proposal Pricing/Delivery** - Pricing shall be inclusive for all items requested in this proposal. Brief notes referencing specific line items may be included, if necessary, for explanation. Proposal shall state all labor, materials and equipment necessary to complete the project as stated in the SCOPE OF WORK (Page 2).
- 4) **Contractor Background Information** - This section should include a description of the Proposer experience with other services similar to the one described herein. This information should include scope of several similar jobs including magnitude and cost, customer contacts and other information that THE CITY can use as a basis for performance evaluation. This section should also include information on your organization and staff assigned to the project.
- 5) **References** - Proposer shall submit with this proposal a list of at least three (3) references where like services or similar projects have been performed by their firm. Include name of firm, address, telephone number and name of representative.
- 6) **Schedule** – Proposer shall submit the amount of working days that will take company to complete project.

SECTION III SELECTION AND SCHEDULES

SELECTION PROCEDURES

The RFP shall be submitted according to the schedule below.

PROPOSAL RANKING

A selection committee will evaluate and rank the written RFPs on a per project basis. After the RFPs have been ranked, the committee will make a recommendation to the CITY Council.

RFP SUBMITTED TO

An original and four (4) copies of RFPs should be submitted to:

**City of Edinburg
c/o City Secretary
415 West University
P.O. Box 1079
Edinburg, Texas 78541**

RFPs must be submitted by **no later than** 3:00 p.m. on Monday, November 16, 2020.

SECTION IV FIRM and RFP EVALUATION

RFP – EVALUATION

The evaluation system consists of a 100 Point system. The RFP will be ranked after evaluation. All RFP's submitted will be ranked and evaluated based on specified RFP criteria. The submittal evaluation will be based on the following criteria.

- **40 Points: Proposer's itemized and total proposed price**
 - Total estimated cost for base bid submitted*

*Alternates might be included based on what is most advantageous to City.
- **40 Points: Proposer's qualifications/experience and performance/references**
 - Demonstrated prior experience for similar projects (20 points)
 - Number of years in business (5 points)
 - Litigation History/Lawsuit History (5 points)
 - References (10 points)
- **10 Points: The Proposer's Team and Subcontractors.**
 - Resumes for Key Individuals (5 points)
 - Project Superintendent
 - Project Manager
 - List of Subcontractors (5 points)
- **10 Points: Schedule.**
 - Lowest total days (10 points)
 - Within 30 days of lowest (8 points)
 - Within 60 days of lowest (6 points)
 - More than 60 days from lowest (5 points)

Proposed Price (40 points):

The price will be evaluated and scored based on the main proposal cost. The City reserves the right to include any and all alternate price proposals in the price evaluation process. The established budget will determine which, if any, alternates will be recommended and accepted as part of the overall price ranking evaluation. After the highest ranked firm is selected, negotiations on price and changes on the scope of work may occur with the firm that provides the best value to the City.

Points will be awarded based upon the total number of offers submitted. The lowest offeror will receive the maximum number of points and the highest offeror will receive the minimum number of points. A point spread system will be established once all the offers are tabulated. The closer the prices of the offers, the larger the point spread will be.

SAMPLE: Utilizing the 80% Spread Formula

Contractor	Price	Points
Offeror No. 01	\$1,000,000.00	40.0
Offeror No. 02	\$1,050,000.00	37.33
Offeror No. 03	\$1,100,000.00	34.67
Offeror No. 04	\$1,150,000.00	32.0

70% spread: $40 \times 70\% = 28.0$ points Results: 12 points spread
75% spread: $40 \times 75\% = 30.0$ points Results: 10 points spread
80% spread: $40 \times 80\% = 32.0$ points Results: 8 points spread
85% spread: $40 \times 85\% = 34.0$ points Results: 6 points spread
90% spread: $40 \times 90\% = 36.0$ points Results: 4 points spread
95% spread: $40 \times 95\% = 38.0$ points Results: 2 points spread

If the committee decided to utilize the 90% spread formula, Offeror No. 04 is only 4 points away from Offeror No. 1. The committee may feel that a 4 point difference is too close, and is unfair to the lowest price offeror. A 70% spread, or 12 point difference, may be too far spread out and may be considered unfair to the highest price offer. Especially since the prices are not too far apart on a \$1 Million project. The point spread could be very different on a \$300,000.00 project budget versus a \$30 million project budget.

After the percentage spread is agreed upon, in this case the 80% formula, the lowest offeror gets the maximum 40 points and the highest offeror gets 32 points. Everyone else in the middle will get their points scored proportionately (extrapolated). This is the scoring system which will be utilized by the ranking committee on the price category for all construction projects. The point system will vary from project to project depending on the project budget ranges, on the number of offers submitted, and on the price spread differences between all offerors.

RESPONDENT – EVALUATION

The evaluation system consists of a 100-point system. The firms will be ranked after evaluation. Categories under the 100-point system include response to RFP. RFP submittal evaluation will be based on the following criteria.

STAFFING OF PROJECT TEAM

The firms should provide information on their proposed professional team members, i.e., applicable certifications/registrations and other pertinent information that demonstrates their qualifications to perform the contract. The professional team members shall have experience in performing similar contracts for counties, cities, irrigation districts, TX DOT or other clients as stated in the Request for Proposals (RFP). Similar experience gained through other clients should be substantiated by reference. A list and scope of the various projects for comparative purposes shall be included in an appendix.

EXPERIENCE OF PROJECT TEAM/ABILITY TO COMMIT RESOURCES

The provider shall designate experienced staff to completely and efficiently perform the work. Also, in this section, outline the firm's contingency plans for servicing the project in the event that one or more key personnel are not available for any reason during the period of performance.

METHODOLOGY

The RFP should provide a description of the firm's approach to the methodology and management to the scope of services for the project.

UNDERSTANDING OF PROJECT/SIMILAR PROJECTS

The proposal shall include the following:

1. Address appropriate Federal/State/Local regulations and policies
2. Identify information to be gathered or obtained

The respondents should provide as much background information as to its experience in providing similar services to State, CITY, County or any other governmental agencies. Reference information should be as current as possible, especially contact persons and telephone numbers.

FAMILIARITY WITH APPLICABLE RULES AND REGULATIONS

The RFP should indicate, through past experience of the proposed Team, that they possess sufficient knowledge of governmental regulations, appropriate codes, guidelines, professional standards and policies (as required).

SECTION V AWARD OF CONTRACT, RESERVATION OF RIGHTS

Number of Contracts

The CITY reserves the right to award one or no contract(s) in response to this RFP.

Advantageous Contract

The Contract/s, if awarded, will be awarded to the vendor/s submitting proposal for the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT whose Submittal(s) is/are deemed most advantageous to the CITY and, as determined by the selection committee, upon approval of the CITY Council.

Final Selection and City Council Approval

The CITY may accept any Submittal in whole or in part. If subsequent negotiations are conducted, they shall not constitute a rejection or alternate RFP on the part of THE CITY. However, final selection of a company submitting proposal for the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT is subject to City Council approval.

Remedy of Technical Errors

The CITY reserves the right to accept one or more submittals or reject any or all submittals received in response to this RFP, and to waive informalities and irregularities in the submittals received. The CITY also reserves the right to terminate this RFP, and reissue a subsequent solicitation, and/or remedy technical errors in the RFP process.

Preparation Costs

This RFP does not commit the CITY to enter into a Contract, award any services related to this RFP, nor does it obligate the CITY to pay any costs incurred in preparation or submission of a submittal or in anticipation of a contract.

Insurance and Indemnity

If selected, vendor/s submitting proposal for D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT will be required to comply with the Insurance and Indemnity Requirements established herein.

Independent Contractor

The company/s submitting proposal for the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT agrees and understands that, if selected, it and all persons designated by it to provide services in connection with a contract, is (are) and shall be deemed to be (an) independent contractor(s), responsible for its (their) respective acts or omissions, and that THE CITY shall in no way be responsible for company submitting proposal for the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT actions, and that none of the parties hereto will have authority to bind the other or to hold out to third parties.

Purchase Orders, As Needed

Execution of a contract does not obligate the CITY to engage any delivery orders, Purchase Orders, or other commitments for services. Service delivery shall be at the CITY's discretion, as

needed, and will be communicated to the company submitting proposal for the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT through individual Purchase Orders.

ATTACHMENT I Insurance Requirements

The Respondent awarded the contract shall furnish proof of insurance, which will also include any subcontractor that is subcontracted by the bidder in at least the following limits, to be in place prior to providing any services under this Contract and to continue in effect at all times during the term of this Contract:

- 1 Professional liability insurance policy with limits of at least One Million Dollars (\$1,000,000) per occurrence, or limited to claims made, include at least a five (5) year extended reporting period.

- 1 Automobile liability insurance policy with limits of at least Three Hundred Thousand Dollars (\$300,000) per person and \$500,000 per occurrence consistent with potential exposure to The CITY under the Texas Tort Claims Act. Coverage should include injury to or death of persons and property damage claims (with limits up to \$500,000) arising out of the services provided to The CITY hereunder.

- 1 Uninsured/Underinsured motorist coverage in an amount equal to the bodily injury limits set forth immediately above;

- 1 A Five Hundred Thousand Dollar (\$500,000) Comprehensive General Liability insurance policy providing additional coverage to all underlying liabilities of The CITY consistent with potential exposure of The CITY under the Texas Tort Claims Act;

- 1 Workers' compensation insurance in amounts established by Texas law, unless the Bidder is specifically exempted from the Texas Workers' Compensation Act, Texas Labor Code Chapter 401, et. Seq.

Certificates of insurance naming The CITY as an additional insured shall be submitted to The CITY for approval prior to any services being performed by Contractor. Each policy of insurance required hereunder shall extend for a period equivalent to, or longer than the term of the Contract, and any insurer hereunder shall be required to give at least thirty (30) days written notice to The CITY prior to the cancellation of any such coverage on the termination date, or otherwise. This Contract shall be automatically suspended upon the cancellation, or other termination, of any required policy of insurance hereunder, and such suspension shall continue until evidence that adequate replacement coverage is provided to The CITY. If replacement coverage is not provided within thirty (30) days following suspension of the Contract, the Contract shall automatically terminate.

ATTACHMENT II
Insurance Requirement Acknowledgement

I, _____, authorized representative for
_____,

Company/Vendor

Hereby acknowledge the receipt of The CITY's required insurance limits. Said requirements:

- Will be acquired within 10 working days after notification from the Engineering Department of proposal awarded by The CITY of Edinburg; (*An insurance certificate for the required insurance limits shall be provided to the City Engineer in order to qualify for award of bid and to execute a contract between the Company and The CITY.)
- Will acquire additional amount needed to meet The CITY's requirements within 10 working days after notification from the Engineering Department of bid awarded by The CITY of Edinburg; currently carry the following:

Professional Liability (Errors & Omissions):

\$ _____

Automobile Liability: \$ _____ General Liability:
\$ _____

(* An insurance certificate for the required insurance limits shall be provided to the City Engineer in order to qualify for award of bid and to execute a contract between the Company and The CITY.) **OR**

- Have already been met (see attached copy of insurance certificate).

Authorized Representative

Date

Notice to Bidder: Failure to provide Certificates of Insurance to the City Engineer will cause the bid award to be rescinded and then awarded to next lowest bidder. Certificates of Insurance will be monitored/verified on a **quarterly basis** to ensure that coverage policy is in place. It is the Company's obligation to maintain the appropriate insurance coverage throughout the term of the contract.

THIS FORM MUST ACCOMPANY BID PACKET

ATTACHMENT III

**Project Requirements
Acknowledgement**

This is to certify that I, _____, possess all of the
APPLICABLE:

1. Licenses:

2. Bonds:

3. Certificates:

4. Permits:

5. Other:

necessary to carry out the required project. Furthermore, I am providing copies of the required documentation, so that if my company is awarded the bid, I may be eligible to enter a contract with the CITY and proceed to complete the project in a timely manner.

*** Any license, bonds, certificates, permits, etc. which are required must be presented as part of the bid packet in order to expedite the bid evaluation process. Failure to provide said documentation will result in the disqualification of your bid.**

Authorized Signature

Date

Company

Address

City, State, Zip

ATTACHMENT V

VENDOR/S PROVIDING PROPOSAL FOR D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT QUALIFICATIONS GENERAL QUESTIONNAIRE

1 Name/Name of Agency/Company: _____

(Full, correct legal name)

2 Address: _____

3. Telephone/Fax: _____

4. Does your Company anticipate any mergers, transfer of organization ownership, management reorganization, or departure of key personnel within the next twelve (12) months that may affect the organization's ability to carry out its submittal?

Yes____ No____

5. Is your Company authorized and/or licensed to do business in Texas?

Yes____ No____

6. Where is the Company's corporate headquarters located? _____

7. a. Does the Company have an office located in Edinburg, Texas?

Yes____ No____

b. If the answer to the previous question is "yes", how long has the Company conducted business from its Edinburg office?

_____ (years) _____ (months)

c. State the number of full-time employees at the Edinburg office. _____

8. a. If the Company does not have an Edinburg office, does the Company have an office located in Hidalgo County, Texas?

Yes____ No____



b. If the answer to the previous question is yes, how long has the Company conducted business from its Hidalgo County office?

_____ (years) _____ (months)

c. State the number of full-time employees at the Hidalgo County office. _____

9. Has the Company or any of its principals been debarred or suspended from contracting with any public entity? Yes _____ No _____

If yes, identify the public entity and the name and current phone number of a representative of the public entity familiar with the debarment or suspension, and state the reason for or circumstances surrounding the debarment or suspension, including but not limited to the period of time for such debarment or suspension. _____

10. Indicate person whom The CITY may contact concerning your submittal or setting dates for meetings.

Name: _____
Address: _____
Telephone: _____
Fax: _____
Email: _____

11. Surety Information

Have you or the Company ever had a bond or surety instrument "called," canceled, or forfeited?

Yes () No ().

If yes, state the name of the bonding company, date, amount of bond and reason for such bond being "called," or its cancellation or forfeiture. _____

12. Bankruptcy Information

Have you or the Company ever been declared bankrupt or filed for protection from creditors under state or federal proceedings? Yes () No ()

If yes, state the date, court, jurisdiction, cause number, amount of liabilities

and amount of assets. _____

13. Provide any other names under which your business has operated within the last 10 years.

ATTACHMENT VI
HOUSE BILL 89 VERIFICATION

I, _____, the undersigned representative
of

_____, (Company or Business name)
(hereafter referred to as company) **being an adult over the age of eighteen (18) years of age, verify that the company named-above, under the provisions of Subtitle F, Title 10, Government Code Chapter 2270:**

- 1. Does not boycott Israel currently; and**
- 2. Will not boycott Israel during the term of the contract.**
- 3) Is not currently listed on the State of Texas Comptroller’s Companies that Boycott Israel List located at <https://comptroller.texas.gov/purchasing/publications/divestment.php>**

Pursuant to Section 2270.001, Texas Government Code:

- 1. “Boycott Israel” means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes; and*
- 2. “Company” means a for-profit sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or any limited liability company, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of those entities or business associations that exist to make a profit.*

SIGNATURE OF COMPANY REPRESENTATIVE:

TYPE/PRINT NAME AND TITLE:

DATE:

ATTACHMENT VII

SUBMITTAL CHECKLIST

This checklist is to help the company submitting proposal for the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT ensure that all required documents have been included in its submittal.

Document and Location in Submittal	Check or Initial to Indicate Document is Attached to Submittal
Tab A – Interest Statement	
Tab B – Company submitting proposal for the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT Qualification General Questionnaire (Attachment VI in RFP)	
Tab C – *Project Requirements Acknowledgement (Attachment V in RFP)	
Tab D – Litigation Disclosure (Attachment IV in RFP)	
Tab E – Proof of Insurability (Letter from Insurance Provider and copy of current Insurance Certificate)	
Tab F – *Insurance Requirement Acknowledgement (Attachment II in RFP)	
Tab G – Letter of Intent from Surety Company to provide Payment and Performance Bonds. (Section II in RFP Requirements)	
Tab H – Submittal Checklist (Attachment VI in RFP)	
Tab I - *House Bill 89 Verification (Attachment VI)	
Tab J- *Formal Proposal for the D.W.T.P. SECTION 3 FILTER CONTROL REPLACEMENT	
1 Original* and 2 Copies of Submittal	

***Documents marked with an asterisk on this checklist require a signature. Be sure they are signed prior to submittal.**

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Document 00020

NOTICE TO BIDDERS

Owner: City of Edinburg
415 W. University Drive
Edinburg, Texas 78539
Phone: (956) 388-8211
Fax: (956) 383-7111

Engineer: City of Edinburg – Engineering Department
415 W. University Drive
Edinburg, Texas 78539
Phone: (956) 388-8211
Fax: (956) 383-7111

SIGMA HN Engineers, PLLC
701 S. 15th St.
McAllen, Texas 78501
Phone: (956) 332-3206
Fax: (956) 687-5561

1.00 INVITATION

- A. Bidders are invited to submit an offer for performance of a Contract to the City of Edinburg located at the above address, for the following construction Project:
Project: D.W.T.P. Section 3 Filter Control Valve Replacement
Located: 500 E. Mahl St
- B. Work of the Project consists of Filter Control Valve Replacement.
- C. The Contract Documents are identified D.W.T.P. Section 3 Filter Control Valve Replacement as listed in the Project Manual, issued by the City of Edinburg/SIGMA HN Engineers, PLLC.
- D. The bidder shall bear all costs associated with the preparation and submission of its bid, and the Owner will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- E. When requested, the successful Bidder shall present satisfactory evidence that Bidder has regularly engaged in furnishing products and performing construction work as proposed, and has the capital, labor, equipment, and material to execute the Work required by Contract Documents.

2.00 BID SUBMISSION

- A. Bids signed by an officer of the company and dated will be received at the City Secretary's Office, at 415 W. University Drive, Edinburg, TX 78539 until 3:00 p.m. local time, on November 16, 2020.
- B. Bids submitted after the above time will be returned to the Bidder unopened.
- C. Bids shall be submitted in United States Currency and the English language on the Bid Forms and Supplements to Bid Forms provided with this Project Manual.
- D. Oral, telephonic, facsimile, or telegraphic bids are invalid and will not receive consideration.

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- E. Bids will be opened and publicly read in the City of Edinburg City Hall Community Room aloud via Zoom Video Conferencing on the same date bids are received. The video conference information is as follows:

<https://us02web.zoom.us/j/81013973171?pwd=TjM0c2FDVlhXSHNyaXpHRDFBTII3dz09>

(346) 248-7799 US (Houston)

Meeting ID: 810 1397 3171

Passcode: 392347

- F. Bids will be irrevocable for **90 days** from the bid date. Bidder may withdraw after 90 days without penalty if no mutual agreement can be reached.

3.00 MODIFICATION OR WITHDRAWAL

- A. Bids submitted early may be modified or withdrawn by notice to the City of Edinburg at the place and prior to the time designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder and shall be so worded as not to reveal the amount of the original Bid.
- B. Oral, telephonic, facsimile, or telegraphic modification of Bids will not receive consideration.
- C. Withdrawn Bids may be resubmitted up to the time designated for receipt of Bids.

4.00 CONTRACT TIME

- A. The Work shall be performed within the date established in the Notice to Proceed.
- B. Contractor shall pay liquidated damages in the amounts stated in Document 00500 - Agreement for failure to complete the Work within the Contract Time.
- C. The work is to be performed only during weekdays 8:00 AM to 5:00 PM (Monday to Friday). City recognized holidays are recommended to be avoided. Work performed during weekends (Saturday-Sunday) and holidays will incur a Contractor payment of **\$50** per hour to Owner for onsite inspection.

5.00 SECURITY DEPOSIT REQUIREMENTS

- A. Bids shall be accompanied by a security deposit as stated in Document 00100 - Instructions to Bidders.

6.00 EXAMINATION

- A. Bid Documents are on display on the City of Edinburg website, may be examined at the location below or purchased from the Engineer of Record:

**City of Edinburg
Engineering Department – 2nd Floor
415 W. University Drive
Edinburg, Texas 78539**

7.00 AVAILABILITY

- A. Bid Documents may be purchased from the Engineering Department, Engineer of Record or are available for printing at http://cityofedinburg.com/departments/finance/open_bid_notices.php.
- B. All official notifications, addenda, and other Bidding Documents will be offered only through the designated website. Neither Owner nor Engineer will be responsible for Bidding Documents, including addenda, if any, obtained from sources other than the designated website.
- C. Bid Documents may be purchased by bidders upon receipt of a cashier's check, certified check, money order, company check, or personal check in the amount established by the City of Edinburg or Engineer of Record. The cost includes the Project Manual w/ Specifications and one full sized set of Drawings. They can also be downloaded at no cost, as specified on 7(A).
- D. **The cost for the bid documents will not be refunded.**
- E. Bid Documents are made available only for the purpose of obtaining offers for this Project. Purchase of Bid Documents does not grant a license for other purposes.
- E. On receipt of Bid Documents, verify that documents are legible and complete. Compare contents of Project Manual with Table of Contents; see that all drawings listed in the List of Drawings are included. Notify City of Edinburg should the documents be incomplete as issued.

8.00 QUESTIONS AND INTERPRETATIONS

- A. Bidder is required to study Bid Documents, the site, and conditions affecting the Work, and submit written questions on interpretation of those documents and conditions, or other factors affecting the Work, to the City of Edinburg.
- B. Written questions may be submitted by facsimile or email, addressed to the Engineer. **No questions will be accepted after 5:00 PM, November 11, 2020.** All facsimile communications shall be confirmed by mailing the original correspondence to the City of Edinburg Purchasing Department, if applicable.
- C. Immediately notify the Engineer upon finding discrepancies or omissions in the Bid Documents.

9.00 ACCEPTANCE/REJECTION OF BIDS

- A. The Owner reserves the right to reject or accept any bids as stated in Document 00100 - Instructions to Bidders.

10.00 PRE-BID CONFERENCE

- A. One (1) pre-bid conference will be conducted by the Owner on November 10, 2020 at 11:00 am. The pre-bid conference shall be conducted via Zoom Video conferencing:
<https://us02web.zoom.us/j/88434551989?pwd=eFNScTJUem5idFhBOTIiWU9yZEtldz09>
(346) 248-7799 US (Houston)
Meeting ID: 884 3455 1989
Passcode: 710395
- B. **Attendance by prospective Bidders is highly recommended.** Sub-contractors, suppliers, and equipment suppliers may attend.

- C. Recognizing that free and open communication will benefit all participants, the Owner does not intend to limit or curtail the exchange of information between the Engineer and the prospective Bidders. However, the pre-bid conference is conducted primarily for the benefit of prospective Bidders. As such, a specific procedure will be followed during the conference:
- a. All attendees will sign-in, indicating their role with the project: contractor, supplier, manufacturer, etc.
 - b. Seating priority will be given to Prospective Bidders. Sub-contractors, suppliers, and manufacturer's representatives shall remain behind the contractor area.
 - c. The Owner will make introductions of his staff and consultants.
 - d. The Owner and consultants will give a brief description of the project.
 - e. Only Contracting firms (Prospective Bidders) are permitted to ask questions. Sub-contractors suppliers, and manufacturer's shall deliver their questions to the Contractor they are working with for presentation.
 - f. Questions and answers will be recorded and developed into Meeting Minutes. Meeting Minutes will be distributed to meeting attendees. The Owner reserves the right to use electronic recording, or some other method to record the meeting.
- D. The meeting will be conducted in English. Translators will not be provided.
- E. If necessary, written clarifications or instructions will be issued in the form of an Addendum. Refer to Section 00100 – Instructions to Bidders for specific information concerning Addendums.

END OF DOCUMENT

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Document 00100

INSTRUCTIONS TO BIDDERS**1.00 SUMMARY****1.01 DOCUMENT INCLUDES**

- A. Bid Documents and Contract Documents.
- B. Site Assessment.
- C. Subcontractors/Suppliers/Others.
- D. Bid Submission.
- E. Bid Enclosure Requirements.
- F. Offer, Acceptance, Rejection.

1.02 RELATED DOCUMENTS

- A. Document 00020 - Notice to Bidders: Date, time and place for receipt of bids; Contract Time.
- B. Document 00310 - Form of Proposal.
- C. Document 00405 - Schedule of Unit Price Work.
- D. Document 00450 - Post Bid Procedures.
- E. Document 00500 - Agreement.
- F. Document 00700 - General Conditions.
- G. Document 00800 - Supplementary Conditions.

2.00 BID DOCUMENTS AND CONTRACT DOCUMENTS**2.01 DEFINITIONS**

- A. Definitions set forth in Document 00700 – General Conditions and in other Contract Documents, are applicable to the Bid Documents.
- B. Addenda: Written or graphic instruments issued prior to the opening of Bids, which clarify, modify, correct, or change the Bid Documents.
- C. Alternate Bid: The total amount bid for additions to the Work, as described in the Bid Documents. Each Alternate Bid shall include the cost of effects on adjacent or related components, and the Contractor's overhead and profit.
- D. Bid Documents: The Project Manual and Drawings, including Addenda, plus Notice to Bidders, Instructions to Bidders, and Supplements to Bid Forms identified in Document 00310 - Form of Proposal.
- E. Bidder: A person or entity who submits a Bid.
- F. Low Bidder: The apparent successful Bidder who qualifies as a responsible Bidder and who submits the Bid with the lowest Total Bid Price.

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- G. Bid, Offer, Bidding: The act of submitting a complete and properly signed offer in accordance with these Instructions to Bidders. The Bid will be in the English language.
- H. Total Bid Price: The monetary amount for performing the Work as identified by the Bidder in Document 00310 - Form of Proposal, which amount includes Cash Allowances and Alternate Bids, if any. Bid Price(s) will be in United States.
- I. Security Deposit: A certified check, cashiers check or bid bond in at least the sum of 5 percent of the Total Bid Price which includes Cash Allowances and Alternate Bids, if any.

2.02 QUESTIONS, INTERPRETATIONS

- A. Bidder shall: 1) carefully study the Bid Documents and compare them with each other, 2) examine the site, conditions thereon, and local conditions, and 3) report at once to the Engineer any errors, inconsistencies or ambiguities discovered.
- B. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.
- C. Direct questions to Engineer.
- D. Verbal discussions and answers are not binding. Requests from Bidders for clarifications and interpretations of content of documents must be in writing (mail or facsimile transmission only), and must be received not less than 5 business days before the date set for receipt of Bids.
- E. The reply will be by Addendum.

2.03 ADDENDA

- A. Addenda issued to Bidding Requirements are applicable only during the bidding period. Addenda to the Post-Bid Procedures are applicable only through the issuance of the Notice to Proceed. Any Addenda issued to Contract Forms, Conditions of the Contract, Specifications or Drawings become a part of the Contract Documents. Include resultant costs in the Total Bid Price.
- B. Addenda will be issued by the Engineer to Bidders of record by email. Addenda will also be posted on the City website.
- C. Each Bidder shall ascertain, prior to submitting a Bid that the Bidder has received all Addenda issued. The Bidder shall acknowledge their receipt in the place indicated in Document 00310 - Form of Proposal.

2.04 SUBSTITUTIONS OF MATERIALS/EQUIPMENT

- A. No substitutions will be considered on this Project during the bidding period.
- B. Voluntary substitutions by the Bidder will not be considered.

3.00 SITE ASSESSMENT

- A. Bidders shall examine the Project site before submitting a Bid, become familiar with local conditions under which the Work will be performed, conduct appropriate explorations, and correlate personal observations with requirements of the Bid Documents. Work will be

performed in public right-of-way and City property. The site may be examined at any time during daylight hours.

- B. Bidder shall make site investigations to the extent Bidder deems necessary to ascertain the extent of subsurface conditions and variations thereof.
- C. Failure to perform such investigations during the bid period shall not relieve Bidder from responsibility for investigations, interpretations and proper use of available information in preparation of Bidder's proposal.
- D. Publications by the United States Department of Agriculture, Soil Conservation Service and others may be helpful to the bidder in his subsurface site investigation.
- E. Geotechnical investigation reports for the proposed project site may also be helpful to the bidder in his subsurface site investigation.

4.00 SUBCONTRACTORS/SUPPLIERS/OTHERS

- A. The Owner reserves the right to reject a proposed Subcontractor or Supplier for reasonable cause.

5.00 BID SUBMISSION

5.01 SUBMISSION PROCEDURES

- A. Bidders shall be solely responsible for the delivery of their Bids in the manner and time prescribed in Document 00020 - Notice to Bidders.
- B. Submit **one copy of the original executed offer** on the bid forms provided, properly signed, with required Security Deposit, and other Supplements to Bid Forms, in a sealed, opaque envelope. On the outside of the envelope, clearly indicate that it is a sealed bid and include the Bidder's name, Project name and Owner name. Bids submitted by mail shall be enclosed in a separate envelope addressed for mailing, and identifying the enclosure as a bid. In addition, **three copies must also be submitted.**
- C. Fill in all blanks in the Bid forms. Acknowledge receipt of Addenda. Bid all Alternate Bids required by Bid Documents.
- D. A summary of submitted Bids will be made available to Bidders following the Bid opening.
- E. All costs and expenses incurred by the Bidder that are associated with preparation of the Bid shall be paid by and be the sole responsibility of the Bidder.

5.02 BID INELIGIBILITY

- A. Failure to provide required Security Deposit in the proper amount will be cause to declare the Bid invalid.
- B. Improperly completed information may be cause for declaring the Bid invalid.
- C. Bids that are unsigned, improperly signed, illegible, obscure, altered, or which contain qualifications or irregularities of any kind, may be declared invalid. Document 00310 - Form of Proposal, Supplements to the Bid Forms identified in the Form of Proposal, or enclosures which are improperly prepared, may be declared invalid.

6.00 BID ENCLOSURE REQUIREMENTS**6.01 SUPPLEMENTS TO BID FORMS**

- A. Bid submittals shall include any other documents specified in Document 00310 - Form of Proposal.

6.02 SECURITY DEPOSIT

- A. Bids shall be accompanied by a Security Deposit.
- B. The Security Deposit of the Bidders will be retained until after the Contract is executed.
- C. After execution of the Contract, Security Deposits will be returned to the Bidders.
- D. If no Contract is awarded, all Security Deposits will be returned to the respective Bidders.

6.03 CERTIFIED CHECK/CASHIER'S CHECK

- A. Make certified check or cashier's check (security checks) payable to the Owner.
- B. The security checks are submitted on the condition that if the Bidder is named apparent Low Bidder and then fails either to timely execute the Agreement or to timely provide any required bonds, or to do both, then in that event the Owner will cash the security check.
- C. The Owner will retain an amount equal to the difference between the Bid of the Bidder providing the security check and the Bid of the Bidder who is finally awarded the Contract and who executes the Agreement and provides the required bonds.
- D. Any balance remaining will be reimbursed by the Owner to the Bidder who provided the security check.

6.04 BID BOND

- A. The bid bond must be a valid and enforceable bond, executed by a corporate Surety authorized by the Texas State Board of Insurance to conduct insurance business in the State of Texas and shall comply with other requirements set out by law or included in the Bid Documents.
- B. Endorse the bid bond in the name of the Owner as obligee, signed by the Contractor as principal and executed, signed and sealed by the Surety.
- C. The bid bond must be conditioned such that if the Bidder is named apparent Low Bidder and then fails either to execute the Agreement timely or to provide any required bonds timely, or to do both, then in that event the Surety will be obligated to pay to the Owner an amount equal to the difference between the Bid of the Bidder on whom the bond was written and the Bid of the Bidder who is finally awarded the Contract and who executes the Agreement and provides the required bonds, up to the penal sum of the Bond.
- D. In addition, the Owner expressly reserves the right to reject any Bid if the Bid Bond (or Bid Bond rider) conditions the Bid in a way inconsistent with the Bid Documents. Examples include but are not limited to:

1. a condition prohibiting the Owner from making a Claim against the Performance Bond Surety that would be allowable under the Contract and Performance Bond form published in the Bid Documents;
 2. a condition that provides that the Performance Bond Surety cannot be held liable for completing the Contract in case of default; or
 3. a condition limiting the Performance Bond Surety's liability for damages inconsistent with the Contract and Performance Bond form published in the Bid Documents.
- E. On all contracts that will equal to or exceed \$100,000, the performance bond and the payment bond must be provided by a surety that has a rating of "A" from AM BEST, MOODY'S or STANDARD & POORS.

In the event that the total bid amount is \$50,000 or less, the successful contractor has the option to enter into a single payment contract with the City of Edinburg in lieu of a Performance Bond, provided that no money shall be paid to the contractor until completion of the work by the contractor and accepted of same by the City of Edinburg. In the event that the total bid amount is \$25,000 or less, the successful contractor has the option to enter into a single payment contract with the City of Edinburg in lieu of a Payment and Performance Bond.

6.05 BID FORM SIGNATURE

- A. Document 00310 - Form of Proposal shall be signed by the Bidder as follows:
1. Sole Proprietorship: Full name, address, and signature of sole proprietor, signed in the presence of a witness who will also sign. Insert the words "Sole Proprietor" under the signature.
 2. Partnership: Name and address of the firm, signature of each partner in the presence of a witness who will also sign. The full name and address of each partner shall be given.
 3. Corporation: Signature of duly authorized officer.
 4. Joint Venture: Each party of the joint venture shall execute Document 00310 - Form of Proposal under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a Partnership.

7.00 DETERMINING LOWEST RESPONSIVE, RESPONSIBLE BIDDER

7.01 BIDDERS QUALIFICATIONS

- A. Bids must contain evidence of Bidder's qualifications to do business in the state of Texas. To demonstrate that the Bidder is responsible and able to perform the Work, funding policies dictate each Bidder must submit, as a part of the Bidding Documents, all of the items listed below:

00310 Form of Proposal
00405 Schedule of Unit Price Work
00411 Bid Bond
00420 Statement of Bidder's Qualifications
00423 Certification of Bidder's Qualifications

00425 Equipment & Material Suppliers List

00460 Non-Collusion Affidavit

00429 Non-Bribery Model Form

- B. Only the above data/information provided with the Bidding Documents may be used for evaluation and developing the Recommendation to Award by the Engineer. Bidders will not be allowed to substitute any "Key Personnel" other than alternates presented in the bid or examples of previous projects submitted in the bid package. Minor clarifications of submitted materials will be permitted after bid opening. Such request for clarifications will only be initiated by the Engineer in writing and only written responses will be accepted.
- C. In determining the lowest responsible, responsive Bidder, in addition to price, the following elements will be considered:
1. The quality, availability, and adaptability of the supplies, materials, equipment, or contractual services, to the particular use required;
 2. The ability, capacity and skill of the bidder to perform the contract or to provide the service required;
 3. Whether the bidder can perform the contract and provide the service promptly, or within the time required, without delay or interference;
 4. The character, responsibility, integrity, reputation, and experience of the bidder;
 5. The quality of performance of previous services, or contracts;
 6. The previous and existing compliance by the bidder with laws relating to the contract or service;
 7. Any previous or existing noncompliance by the bidder with specifications, or requirements relating to time of submission of specified data such as samples, models, drawings, certificates, or other information;
 8. The sufficiency of the financial resources and ability of the bidder to perform the contract or to provide the service; and
 9. The ability of the bidder to provide competent personnel for the job, as demonstrated by the submitted listing of the names and the skills of experienced personnel, including potential alternates, whom the bidder currently employs and who will be available for performing this work;
 10. The experience of the bidder in performing work similar in type, size and complexity to this project, as demonstrated by a listing of projects, with verifiable references (names, addresses, phone numbers, etc.), successfully completed.
 11. Bidder shall provide with the Bid an experience statement with pertinent information regarding similar projects and other evidence of qualifications for each such Subcontractor, Supplier, person, or organization.

7.02 BIDDER MUST MEET THE FOLLOWING MINIMUM CRITERIA:

- (A) The Bidder must demonstrate **Successful Completion during the last five (5) years of at least one project comparable in nature and scope to this project. The comparable scope shall be at least 1/4 the size of the proposed project.
- (B) At least two *Key Personnel, and their potential alternate, employed by the Bidder must have a minimum of five (5) years experience in similar construction projects.
- (C) The Bidder must have an employee, to be dedicated to this project, who is experienced in scheduling, with demonstrated ability in employing scheduling techniques similar to those to be used for this project.
- (D) Bidder may, at its discretion, include resumes of alternates for Key Personnel, and if in the process of bid evaluation, the Owner rejects any Key Personnel, the Owner will consider the alternates.

* KEY PERSONNEL: Individuals who will be directly assigned to this project. Resumes of Key Personnel must be submitted with the Bid (include in Document 00420) and accepted by the Owner in order for Bidder to receive the Award. At the minimum, the resumes for the following personnel that are to be assigned to this Project are to be submitted.

- (a) Owner or Principals of the Bidder
- (b) The Project Manager
- (c) The Project Superintendent
- (d) The Project Scheduler
- (e) Minimum of two Foremen

**SUCCESSFUL COMPLETION: Defined as completion of a project on time, no more than thirty (30) days later than the original contract time, and within budget, within 5% of the original contract price. If there is any project submitted by the Bidder as qualifying, but which does not meet these requirements, in order to be fully responsible, the Bidder is required to submit detailed information on that project demonstrating what caused the increases to cost or time. The name and telephone numbers of the Design Engineer and the Client are to be provided for evaluation as to whether the project may be considered "successful". For any project where liquidated damages were assessed, the Bidder will not be considered to have been on time.

7.03 BIDDERS ARE REQUIRED TO SUBMIT WITH THEIR BID:

00310 Form of Proposal

00405 Schedule of Unit Price Work

00411 Bid Bond

00420 Statement of Bidder's Qualifications

00423 Certification of Bidder's Qualifications

00425 Equipment & Material Suppliers List

00429 Non-Bribery Model Form

00460 Non-Collusion Affidavit

- (A) Failure to submit these items with the bid will result in a finding that the bid is non-responsive and the bid will be disqualified.

- 7.04 The Owner will evaluate and compare only the bids determined to be responsive in accordance with the following:**
- (a) Is the bid complete (all Bidding Documents submitted);
 - (b) Have documents been properly signed;
 - (c) Are the required bid securities part of the bid package; and
 - (d) Are there any computational errors present?
- 7.05 The Owner reserves the right to accept or reject any variation, deviation, or alternative offer which is not submitted in accordance with the bidding documents. Variations, deviations, alternative offers, and other factors that are in excess of the requirements of the bidding documents or which otherwise result in unsolicited benefits for the Owner, shall not be taken into account in bid evaluation.**
- 7.06 In evaluating the bids, the Owner will determine for each bid, the evaluated bid price by adjusting the bid price as follows:**
- A. Making any correction for errors;
 - B. Excluding provisional sums and the provision, if any, for contingencies in the price schedules;
 - C. Taking an appropriate adjustment for any other quantifiable acceptable non-material variations, deviations or alternative offers; and
 - D. Making appropriate adjustments to reflect additional factors in the manner and to the extent indicated in the Bidding Documents.
- 7.07 The Owner will award the contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has offered the lowest evaluated bid price provided that such bidder has been determined to be qualified to perform the contract satisfactorily in accordance with the provisions of the Bidding Documents.**
- 8.00 OFFER ACCEPTANCE, REJECTION**
- 8.01 ACCEPTANCE**
- A. The Owner will give notice of intent to award the Contract to the Low Bidder. Acceptance by the Owner is conditioned upon Bidder's submission of information for establishing satisfactory qualifications, if required; and execution of submittals required in Document 00450 - Post-Bid Procedures.
 - B. The Bid shall remain open to acceptance and shall be irrevocable for the Period for Bid Acceptance stated in Document 00020 – Notice to Bidders.
 - C. Additional time taken by Contractor to fulfill requirements for submittals, including review and re-submittal, shall be added to the acceptance period.
- 8.02 REJECTION**
- A. The Owner reserves the right to reject any and all Bids or to accept any Bid deemed advantageous to it.
- 8.03 BID TABULATION**
- A. The Engineer will tabulate, record, and evaluate the Bids of all responsible Bidders after the Bid opening.

- B. In tabulating Bids, the amount written for a unit price governs over the total amount calculated. Therefore, the Engineer may correct any mathematical errors in the extension of the total amount based on the unit price given by a Bidder and adjust their Total Bid Price.

9.00 APPROVAL BY THE FUNDING AGENCIES

- A. All addenda, contracts, work directives, change orders, time extensions, and other matters specified in the Contract Documents are not valid until approved in accordance with the City of Edinburg's Purchasing Policies and Procedures Manual.

END OF DOCUMENT

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Document 00300

CONTRACTOR NOTICE OF INTENT TO RESPOND

Firms interested in submitting a bid on the project as outlined in the specifications, should indicate their intention by signing, dating and returning the form to the address below prior to November 9, 2020, so that they may receive any addendums to the specifications should the need arise.

Owner: City of Edinburg
Attn: Finance Department
(Lorena Fuentes)
415 W. University Drive
Edinburg, Texas 78539
lfuentes@cityofedinburg.com

Engineer: **City of Edinburg – Engineering Department**
Attn: Gerardo Carmona Jr., P.E.
415 W. University Drive
Edinburg, Texas 78539
gcarmona@cityofedinburg.com

SIGMA HN Engineers, PLLC
Attn: Tony Nicanor, P.E.
701 S. 15th Street
McAllen, TEXAS 78501
tonynicanor@sigmahne.com

Bidder: _____
[Please print or type the full name of your proprietorship, partnership, corporation, or joint venture.*]

Contact Name: _____ [Title]
[Please print or type name]

Address: _____ [Mailing]

[Street, if different]

Telephone: _____
[Print or type telephone number]

Fax: _____
[Print or type telephone number]

Email: _____
[Print or type telephone number]



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Document 00405

SCHEDULE OF UNIT PRICE WORK

This Document, constitutes a Supplement to Document 00310 - Form of Proposal.
When a Contract is awarded, this Document becomes a supplement to Document 00500 - Form of Agreement Between Owner and Contractor.

Base Bid					
SPEC NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE (in figures)	UNIT TOTAL (in figures)
	A. MATERIAL AND LABOR TO FURNISH AND INSTALL 12" INFLUENT LINE BUTTERFLY VALVE	4	EA	\$	\$
	B. MATERIAL AND LABOR TO FURNISH AND INSTALL 12" EFFLUENT ROF BUTTERFLY VALVE	4	EA	\$	\$
	C. MATERIAL AND LABOR TO FURNISH AND INSTALL 12" BACKWASH SUPPLY LINE BUTTERFLY VALVE	4	EA	\$	\$
	D. MATERIAL AND LABOR TO FURNISH AND INSTALL 18" BACKWASH WASTE LINE BUTTERFLY VALVE	4	EA	\$	\$
	E. MATERIAL AND LABOR TO FURNISH AND INSTALL 4" SURFACE WATER LINE BUTTERFLY VALVE	4	EA	\$	\$
	F. MATERIAL AND LABOR TO FURNISH AND INSTALL 14" BACKWASH ROF BUTTERFLY VALVE	1	EA	\$	\$
	G. 316L STAINLESS STEEL HARDWARE FOR BUTTERFLY VALVES (BOLTS, NUTS, WASHERS, ETC.)	1	LS	\$	\$
	H. MATERIAL AND LABOR TO FURNISH AND INSTALL SMART POSITIONER	1	EA	\$	\$
	I. MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL REMOTE CONTROLLER DISPLAY.	5	EA	\$	\$
	J. MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL 18 AWG, SHIELDED TWISTED PAIR CABLING IN 1/2 INCH EMT CONDUIT TO PROVIDE 4-20mA FROM REMOTE CONTROLLER DISPLAY AND THE SMART POSITIONERS.	5	EA	\$	\$
	K. MATERIAL AND LABOR TO FURNISH AND INSTALL COMPRESSED AIR TUBING, COMPRESSOR AND DRYER AND ALL MISCELLANEOUS EQUIPMENT.	1	LS	\$	\$
	L. MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL BRANCH CIRCUIT FOR COMPRESSOR CONSISTING OF 3#10, 1#12 EGC, 1/2 INCH CONDUIT WITH NEMA1,	1	EA	\$	\$

	30/NF/3 POLE, 480 VOLT SAFETY DISCONNECT SWITCH AND 20/3 POLE BRANCH BREAKER, 14KAIC.				
	M. MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL BRANCH CIRCUIT CONSISTING OF 2#12, 1#12 EGC, 1/2-INCH CONDUIT WITH LIQUID TIGHT METAL FLEX CONDUIT AND CONDUIT FITTINGS.	2	EA	\$	\$
	N. MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL ROTARY PHNEMATIC ACTUATORS.	21	EA	\$	\$
	O. MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL 316 COMPRESSED AIR ISOLATION VALVES.	1	LS	\$	\$
	P. UTILITY CONTINGENCY ALLOWANCE:	1	LS	\$ 30,000	\$ 30,000
Total Base Bid Only					\$
In case of DISCREPANCIES, Unit Price RULES OVER Unit Total and Total Amounts.					

TOTAL BID PRICE (Total Unit Prices Base and Alternates)

\$ _____

Notes:

(1) United States Dollars. In the event of a discrepancy, this column shall govern.

Project: _____

Project No. _____ Bidder's Signature: _____

Company: _____ Name: _____

Date: _____ Title: _____

END OF DOCUMENT



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Document 00310

FORM OF PROPOSAL

To: CITY OF EDINBURG

Project No.: RFP 2020-07

Project: D.W.T.P. SECTION 3 FILTER CONTROL VALVE REPLACEMENT

Bidder: [Print or type full name of proprietorship, partnership, corporation, or joint venture]

1.0 OFFER

Pursuant to and in compliance with the invitation to Bid and the proposed contract documents dated August 06, 2020 and relating to the above referenced project, the undersigned hereby proposes and agrees to fully perform the work within the time stated and in strict accordance with the proposed Contract Documents, and addenda thereto, for the following sum of money:

1. Base Bid - All labor, materials, services, and equipment necessary for the work shown on drawings and specifications, by the date set forth by the general contractor as the completion date of the project. Each line item is considered part of the base bid and all will be totaled to form the total base bid price, upon which the contractor shall be evaluated.

A. Replacement of valves, actuators, compressed air equipment and controls: All labor, materials, services, and equipment necessary for the work shown on drawings and specifications, by the date set forth by the general contractor as the completion date of the project.

_____ Dollars (\$_____)

B. Utility Contingency Allowance:

Thirty Thousand Dollars (\$_____)

C. Total Base Bid Price:

_____ Dollars (\$_____)

180 days

[Calendar Days]

Unit Price or Combination Stipulated Price and Unit Price Contract. If the Proposal is for a Unit Price Contract or a combination of Stipulated Price and Unit Price Contract, the Total Proposal Price, including Cash Allowances, if any, is tabulated in: Document 00405 - Schedule of Unit Price Work for a Project with no Alternate Proposals, or Document 00407 - Schedule of Alternates for a Project with Alternate Proposals.

Cash Allowances. All Cash Allowances, totaled in either Document 00405 - Schedule of Unit Price Work, as applicable, and described in the Bid Documents are included in the Total Proposal Price.



Changes in Contract Price Due to Variations in Actual Quantities. For items quoted in Document 00405 - Schedule of Unit Price Work, the Total Proposal Price is based in whole or in part on the Unit Price multiplied by the quantity for each of the items listed. The Contract Price is subject to change due to variation in the actual quantities of each item in the completed Work in accordance with the Contract Documents.

Alternate Proposals. Alternate Proposal work, as described in the Proposal Documents, will be performed for an amount added or deducted to the Total Proposal Price for each Alternate Proposal that is accepted by the Owner. The Owner may accept or reject any or all Alternate Proposals.

Security Deposit. Included herewith is a Security Deposit in the amount of 5 percent of the greatest amount of the Total Proposal Price, or Total Alternate Proposal Price(s).

Period for Proposal Acceptance. This offer shall be open to acceptance and is irrevocable for 90 days from the Proposal date. That period may be extended by mutual written agreement of the Owner and the Bidder. After 90 days, the Bidder may withdraw without penalty if no mutual agreement can be reached.

2.0 CONTRACT TIME

If this offer is accepted, Substantial Completion of the Work will be achieved within the time stated in Document 00020 - Notice to Bidders. The Date of Commencement will be established by the Notice to Proceed.

3.0 ADDENDA

The following Addenda have been received. The modifications to the Proposal Documents noted therein have been considered and all costs relating thereto are included in the Proposal Price:

- Addendum No. _____, dated _____
- Addendum No. _____, dated _____
- Addendum No. _____, dated _____
- Addendum No. _____, dated _____
- Addendum No. _____, dated _____
- Addendum No. _____, dated _____

4.0 SUPPLEMENTS TO THIS PROPOSAL:

The following Supplements are attached as an integral part of this Proposal:

- Document 00405 - Schedule of Unit Price Work, if applicable
- Document 00411 – Bid Bond (*Form supplied by Bidder*)
- Document 00420 – Statement of Bidder’s Qualifications
- Document 00423 – Certification to Bidder’s Experience & Qualifications
- Document 00425 – Equipment & Material Suppliers List

5.0 SIGNATURES:



Bidder: _____
[Please print or type the full name of your proprietorship, partnership, corporation, or joint venture.*]

By: _____
[Signature]** [Date]

Name: _____
[Please print or type name] [Title]

Address: _____
[Mailing]

[Street, if different]

Telephone: _____
[Print or type telephone number]

- * *If the Proposal is a joint venture, add additional Proposal form signature sheets for each member of the joint venture.*
- ** *The undersigned, as bidder, certifies that the only person or parties interested in this proposal as principals are those named herein; that the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the Contract for the Project.*

Note: *This document constitutes a government record, as defined by § 37.01 of the Texas Penal Code. Submission of a false government record is punishable as provided in § 37.10 of the Texas Penal Code.*

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Document 00411

BID BOND

PART 1 - GENERAL

1.01 SECTION INCLUDES

This section describes the standardized bid bond form to be submitted with the bid on the project.

1.02 REFERENCES – Not Used

1.03 DEFINITIONS – Section 0700

1.04 BID BOND FORMS

Bidder is to inset an original bid bond or a copy of cashiers check provided for bid bond Purposes. Original check is to be submitted along with bid.

PART 2 - PRODUCT – Not Used

PART 3 - EXECUTION

STANDARIZED FORMS FOLLOW

BID BOND (PENAL SUM FORM)

<p>Bidder Name: [Full formal name of Bidder] Address <i>(principal place of business)</i>: [Address of Bidder's principal place of business]</p>	<p>Surety Name: [Full formal name of Surety] Address <i>(principal place of business)</i>: [Address of Surety's principal place of business]</p>
<p>Owner Name: [Full formal name of Owner] Address <i>(principal place of business)</i>: [Address of Owner's principal place of business]</p>	<p>Bid Project <i>(name and location)</i>: [Owner project/contract name, and location of the project] Bid Due Date: [Enter date bid is due]</p>
<p>Bond Penal Sum: [Amount] Date of Bond: [Date]</p>	
<p>Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.</p>	
<p>Bidder</p>	<p>Surety</p>
<p style="text-align: center;"><i>(Full formal name of Bidder)</i></p>	<p style="text-align: center;"><i>(Full formal name of Surety) (corporate seal)</i></p>
<p>By: _____ <i>(Signature)</i></p>	<p>By: _____ <i>(Signature) (Attach Power of Attorney)</i></p>
<p>Name: _____ <i>(Printed or typed)</i></p>	<p>Name: _____ <i>(Printed or typed)</i></p>
<p>Title: _____</p>	<p>Title: _____</p>
<p>Attest: _____ <i>(Signature)</i></p>	<p>Attest: _____ <i>(Signature)</i></p>
<p>Name: _____ <i>(Printed or typed)</i></p>	<p>Name: _____ <i>(Printed or typed)</i></p>
<p>Title: _____</p>	<p>Title: _____</p>
<p><i>Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.</i></p>	

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation will be null and void if:
 - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by Owner, or
 - 3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.
11. The term “Bid” as used herein includes a Bid, offer, or proposal as applicable.

END OF SECTION

DOCUMENT 00420

STATEMENT OF BIDDER'S QUALIFICATIONS

ARTICLE 1—GENERAL INFORMATION

1.01 Provide contact information for the Business:

Legal Name of Business:			
Corporate Office			
Name:		Phone number:	
Title:		Email address:	
Business address of corporate office:			
Local Office			
Name:		Phone number:	
Title:		Email address:	
Business address of local office:			

1.02 Provide information on the Business's organizational structure:

Form of Business:	<input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation		
<input type="checkbox"/> Limited Liability Company <input type="checkbox"/> Joint Venture comprised of the following companies:			
	1.		
	2.		
	3.		
Provide a separate Qualification Statement for each Joint Venturer.			
Date Business was formed:		State in which Business was formed:	
Is this Business authorized to operate in the Project location?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Pending	

1.03 Identify all businesses that own Business in whole or in part (25% or greater), or that are wholly or partly (25% or greater) owned by Business:

Name of business:		Affiliation:	
Address:			
Name of business:		Affiliation:	
Address:			
Name of business:		Affiliation:	
Address:			

1.04 Provide information regarding the Business's officers, partners, and limits of authority.

Name:		Title:		
Authorized to sign contracts: <input type="checkbox"/> Yes <input type="checkbox"/> No		Limit of Authority:	\$	
Name:		Title:		
Authorized to sign contracts: <input type="checkbox"/> Yes <input type="checkbox"/> No		Limit of Authority:	\$	
Name:		Title:		
Authorized to sign contracts: <input type="checkbox"/> Yes <input type="checkbox"/> No		Limit of Authority:	\$	
Name:		Title:		

ARTICLE 2—LICENSING

2.01 Provide information regarding licensure for Business, if applicable:

Name of License:			
Licensing Agency:			
License No:		Expiration Date:	
Name of License:			
Licensing Agency:			
License No:		Expiration Date:	

ARTICLE 3—DIVERSE BUSINESS CERTIFICATIONS

3.01 Provide information regarding Business’s Diverse Business Certification, if any. Provide evidence of current certification.

Certification	Certifying Agency	Certification Date
<input type="checkbox"/> Disadvantaged Business Enterprise		
<input type="checkbox"/> Minority Business Enterprise		
<input type="checkbox"/> Woman-Owned Business Enterprise		
<input type="checkbox"/> Small Business Enterprise		
<input type="checkbox"/> Disabled Business Enterprise		
<input type="checkbox"/> Veteran-Owned Business Enterprise		
<input type="checkbox"/> Service-Disabled Veteran-Owned Business		
<input type="checkbox"/> HUBZone Business (Historically Underutilized) Business		
<input type="checkbox"/> Other		
<input type="checkbox"/> None		

ARTICLE 4—SAFETY

4.01 Provide information regarding Business’s safety organization and safety performance.

Name of Business’s Safety Officer:			
Safety Certifications			
Certification Name	Issuing Agency		Expiration

4.02 Provide Worker’s Compensation Insurance Experience Modification Rate (EMR), Total Recordable Frequency Rate (TRFR) for incidents, and Total Number of Recorded Manhours (MH) for the last 3 years and the EMR, TRFR, and MH history for the last 3 years of any proposed Subcontractor(s) that will provide Work valued at 10% or more of the Contract Price. Provide documentation of the EMR history for Business and Subcontractor(s).

Year									
Company	EMR	TRFR	MH	EMR	TRFR	MH	EMR	TRFR	MH

ARTICLE 5—FINANCIAL

- 5.01 Provide Annual Gross Revenue (Past Year): \$100,000 or less \$100,000 - \$500,000
 \$500,000 - \$1,000,000 \$1,000,000 - \$5,000,000 \$5,000,000 and over
- 5.02 Will bidder/proposer provide copy of its financial statements for the past two years , if requested by the City of Edinburg? Yes No

ARTICLE 6—SURETY INFORMATION

- 6.01 Provide information regarding the surety company that will issue required bonds on behalf of the Business, including but not limited to performance and payment bonds.

Surety Name:				
Surety is a corporation organized and existing under the laws of the state of:				
Is surety authorized to provide surety bonds in the Project location?	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Is surety listed in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" published in Department Circular 570 (as amended) by the Bureau of the Fiscal Service, U.S. Department of the Treasury?				
<input type="checkbox"/> Yes <input type="checkbox"/> No				
Mailing Address (principal place of business):				
Physical Address (principal place of business):				
Phone (main):			Phone (claims):	

ARTICLE 7—INSURANCE

- 7.01 Provide information regarding Business's insurance company(s), including but not limited to its Commercial General Liability carrier. Provide information for each provider.

Name of insurance provider, and type of policy (CLE, auto, etc.):			
Insurance Provider	Type of Policy (Coverage Provided)		
Are providers licensed or authorized to issue policies in the Project location?			<input type="checkbox"/> Yes <input type="checkbox"/> No
Does provider have an A.M. Best Rating of A-VII or better?			<input type="checkbox"/> Yes <input type="checkbox"/> No

Mailing Address (principal place of business):			
Physical Address (principal place of business):			
Phone (main):		Phone (claims):	

ARTICLE 8—CONSTRUCTION EXPERIENCE

8.01 Provide information that will identify the overall size and capacity of the Business.

Average number of current full-time employees:	
Estimate of revenue for the current year:	
Estimate of revenue for the previous year:	

8.02 Provide information regarding the Business’s previous contracting experience.

Years of experience with projects like the proposed project:			
As a general contractor:		As a joint venturer:	
Has Business, or a predecessor in interest, or an affiliate identified in Paragraph 1.03:			
Been disqualified as a bidder by any local, state, or federal agency within the last 5 years? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Been barred from contracting by any local, state, or federal agency within the last 5 years? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Been released from a bid in the past 5 years? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Defaulted on a project or failed to complete any contract awarded to it? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Refused to construct or refused to provide materials defined in the contract documents or in a change order? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Been a party to any currently pending litigation or arbitration? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Provide full details in a separate attachment if the response to any of these questions is Yes.			

8.03 List all projects currently under contract in Schedule A and provide indicated information.

8.04 List a minimum of three and a maximum of six projects completed in the last 5 years in Schedule B and provide indicated information to demonstrate the Business’s experience with projects similar in type and cost of construction.

8.05 In Schedule C, provide information on key individuals whom Business intends to assign to the Project. Provide resumes for those individuals included in Schedule C. Key individuals include the Project

Manager, Project Superintendent, Quality Manager, and Safety Manager. Resumes may be provided for Business's key leaders as well.

ARTICLE 9—REQUIRED ATTACHMENTS

- 9.01 Provide the following information with the Statement of Qualifications:
 - A. If Business is a Joint Venture, separate Qualifications Statements for each Joint Venturer, as required in Paragraph 1.02.
 - B. Diverse Business Certifications if required by Paragraph 3.01.
 - C. Certification of Business's safety performance if required by Paragraph 4.02.
 - D. Financial statements as required by Paragraph 5.01.
 - E. Attachments providing additional information as required by Paragraph 8.02.
 - F. Schedule A (Current Projects) as required by Paragraph 8.03.
 - G. Schedule B (Previous Experience with Similar Projects) as required by Paragraph 8.04.
 - H. Schedule C (Key Individuals) and resumes for the key individuals listed, as required by Paragraph 8.05.
 - I. Additional items as pertinent.

This Statement of Qualifications is offered by:

Business: _____
(typed or printed name of organization)

By: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)



Date: _____
(date signed)

(If Business is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Address for giving notices:

Designated Representative:

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Address:

Phone: _____

Email: _____

Schedule A—Current Projects

Name of Organization					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					

Construction Manager					
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Schedule B—Previous Experience with Similar Projects

Name of Organization					
Project Owner		Project Name			
General Description of Project					
Project Cost		Date Project			
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner		Project Name			
General Description of Project					
Project Cost		Date Project			
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner		Project Name			
General Description of Project					
Project Cost		Date Project			
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email

Owner					
Designer					
Construction Manager					

Schedule B—Previous Experience with Similar Projects

Name of Organization					
Project Owner		Project Name			
General Description of Project					
Project Cost		Date Project			
Key Project Personnel		Project Manager	Project Superintendent	Safety Manager	Quality Control Manager
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					
Project Owner		Project Name			
General Description of Project					
Project Cost		Date Project			
Key Project Personnel		Project Manager	Project Superintendent	Safety Manager	Quality Control Manager
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					
Project Owner		Project Name			
General Description of Project					
Project Cost		Date Project			
Key Project Personnel		Project Manager	Project Superintendent	Safety Manager	Quality Control Manager
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					

Construction Manager					
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Schedule C—Key Individuals

Project Manager			
Name of individual			
Years of experience as project manager			
Years of experience with this organization			
Number of similar projects as project manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	
Project Superintendent			
Name of individual			
Years of experience as project superintendent			
Years of experience with this organization			
Number of similar projects as project superintendent			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	

Safety Manager			
Name of individual			
Years of experience as project manager			
Years of experience with this organization			
Number of similar projects as project manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	
Quality Control Manager			
Name of individual			
Years of experience as project superintendent			
Years of experience with this organization			
Number of similar projects as project superintendent			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	

Project		Project	
Candidate's role on project		Candidate's role on project	

END OF DOCUMENT

DOCUMENT 00423

**CERTIFICATE OF BIDDER'S
EXPERIENCE & QUALIFICATIONS**

The undersigned bidder certifies that he is, at the time of bidding, and shall be, throughout the period of the contract, licensed by the State of Texas to do the type of work required under terms of the contract documents. Bidder further certifies that he is skilled and regularly engaged in the general class and type of work called for in the contract documents.

The bidder represents that he is competent, knowledgeable and has special skills on the nature, extent and inherent conditions of the work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the particular facilities which may create, during the construction program, unusual or peculiar unsafe conditions hazardous to persons and property. Bidder expressly acknowledges that he is aware of such peculiar risks and that he has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the construction work with respect to such hazards.

Signed this _____ day of _____, 20____.

Name of Bidder

Signature of Bidder

Title of Signatory

END OF SECTION

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BIDDER

Executed this: _____ Day of : _____ 20. _____

By: _____
BIDDER

Title: _____

NOTARY PUBLIC

State of Texas

County of:

Subscribed and sworn to before me this: _____

NOTARY PUBLIC

END OF SECTION

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DOCUMENT 00429

CITY OF EDINBURG NON-BRIBERY MODEL FORM

[Bidder's letterhead]

[Date]

[Name and address]

Dear [Name of Owner] :

The undersigned party certifies that [Name of bidding company] complies with the following criteria:

1. They have not engaged and will not engage in bribery of officials related to potential or active City of Edinburg projects.
2. Respondents shall not offer gratuities, favors or any monetary value to any official or employee of the City for purpose of influencing the selection. Any attempt by any Respondent to influence the selection process by any means, other than disclosure of qualifications and credentials through the proper channels, shall be grounds from exclusion from the selection process. Once the project is advertised, there shall be no contact with any city official or employee unless using the formal process through the Purchasing Department. Failure to comply will result in the firm being disqualified from the process.
3. They have corporate policies that clearly prohibit the use of any bribery in a corporate activity.
4. They have neither been convicted of (nor found by a civil judgment to have committed) bribery of domestic officials, fraud, embezzlement, theft, forgery, destruction of records, making false statements to government officials, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty, within five years of the date of this certification.

Printed name

Signature



Position in bidding company

Date

END OF SECTION

Document 00450

POST-BID PROCEDURES**1.0 DOCUMENT INCLUDES**

- A. Notice of Intent to Award.
- B. Agreement.
- C. Requirements of Bidder.
- D. Failure of Bidder to comply with requirements.
- E. Notice to Proceed.
- F. Pre-construction Conference.
- G. Starting the Project.

2.0 NOTICE OF INTENT TO AWARD

- A. Owner will provide written Notice of Intent to Award (the Contract) to the selected bid or proposal, stating that upon compliance with the conditions listed herein within 14 days after receipt of the notice, and on approval by Owner, Owner will execute and deliver the Agreement.

3.0 FORM OF AGREEMENT

- A. The Agreement shall be Document 00500 - Agreement between the Owner and Contractor, together with Supplements enumerated in and attached thereto.

4.0 REQUIREMENTS OF BIDDER

- A. Within 14 days of receipt of the Notice of Intent to Award, the selected bidder or proposal shall execute and deliver to the Engineer for the Owner's approval those documents indicated by an "X" below:

- Document 00500 - Agreement Between the Owner and Contractor
- Document 00610 - Performance Bond (100% of the Contract Amount)
- Document 00620 - Payment Bond (100% of the Contract Amount)
- Document 00625 - Affidavit of Insurance (*with Certificate of Insurance attached*)

5.0 FAILURE OF BIDDER TO COMPLY WITH REQUIREMENTS

- A. Should the Bidder on receipt of the Notice of Intent to Award fail to comply with requirements of this Document 00450 within the stated time, the Owner may declare the award in default and require forfeiture of the Security Deposit.
- B. After Owner's written notice of default to the Bidder or proposal, Owner may award the Contract to the responsible Bidder whose offer is the next advantageous bid or proposal, and the Security Deposit of

00450-1 of 2

the Bidder in default shall be forfeited to the Owner in accordance with the provisions of Document 00100 - Instructions to Bidders.

6.0 NOTICE TO PROCEED

- A. Upon Owner's execution of the Agreement and delivery to Contractor, the Engineer shall give the Contractor Notice to Proceed within 30 days after the Effective Date of the Agreement, which notice shall establish the Date of Commencement of the Work.

7.0 PRE-CONSTRUCTION CONFERENCE

- A. Not later than 10 days after the date of Notice to Proceed, but before Contractor starts work at the site, Owner will convene a Pre-construction Conference as specified in Section 01312 - Coordination and Meetings.

8.0 STARTING THE PROJECT

- A. Contractor shall start performance of the Work at the site on the Date of the Commencement of the Work, but no Work shall be done at the site prior to that date.
- B. As Contractor, verify that you and all Subcontractors pay the Prevailing Wage.

END OF DOCUMENT

SECTION 00460

NONCOLLUSION AFFIDAVIT**PART 1 - GENERAL****1.01 SECTION INCLUDES**

This section describes the standardized forms for use in Bidder and Contractor representations and certifications for the project.

1.02 REFERENCES – Not Used**1.03 DEFINITIONS – Section 0700****1.04 REPRESENTATIONS AND CERTIFICATIONS**

- A. Affidavit of Non-collusion
- B. Historically Underutilized Business (HUB) Certification (Bidder to insert appropriate certification notice at the end of this Section).

PART 2 - PRODUCT – Not Used**PART 3 - EXECUTION – Not Used**

STANDARDIZED FORMS FOLLOW

NONCOLLUSION AFFIDAVIT OF PRIME BIDDER

STATE OF TEXAS
COUNTY OF HIDALGO

_____, being first duly sworn, deposes and says that:

(Name)

(1) He is President of _____, the Bidder that has submitted the attached Bid;
(Company)

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

(3) Such Bid is genuine and is not a collusive or sham Bid.

(4) Neither said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed directly or indirectly with another Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix an overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the **CITY OF EDINBURG**, or any person interested in the proposed Contract; and

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

Sign _____

Title _____

Subscribed and sworn to me this _____ day of _____, 20____.

By:

Notary Public
My commission expires

END OF SECTION



Document 00500

AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT

This Agreement is by and between CITY OF EDINBURG (“Owner”) and (Contractor Name) (“Contractor”).

Terms used in this Agreement have the meanings stated in the General Conditions and the Supplementary Conditions.

Owner and Contractor hereby agree as follows:

WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: **The project will improve maintenance issues in the area and will improve current water treatment plant conditions by upgrading valves, actuators, compressed air equipment and controls.**
- 1.02 Contractor is responsible for requesting a permit from the City of Edinburg – Permits Department in a timely manner upon receiving a Notice to Proceed.

THE PROJECT

- 2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: **D.T.W.T.P. Section 3 Filter Control Valve Replacement**

ENGINEER

- 3.01 The Owner has retained **(City of Edinburg – Engineering Department & Sigma HN Engineers, PLLC)** (“Engineer”) to act as Owner’s representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.
- 3.02 The part of the Project that pertains to the Work has been designed by **(City of Edinburg – Engineering Department & Sigma HN Engineers, PLLC)**.

CONTRACT TIMES

- 4.01 *Time is of the Essence*
 - A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

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4.02 *Contract Times: Dates*

- A. The Work will be substantially complete on or before **(Date)**, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before **(Date)**.

4.03 *Milestones*

- A. Parts of the Work must be substantially completed on or before the following Milestone(s):
1. Milestone 1 **Substantial Completion / (Date)**
 2. Milestone 2 **Final Completion / (Date)**

4.04 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. *Substantial Completion*: Contractor shall pay Owner **based on fees below** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.

For Contract of Amount			Cost Per Day
\$5,000.00	To	\$25,000.00	\$100.00
\$25,000.01	To	\$100,000.00	\$200.00
\$100,000.01	To	\$500,000.00	\$250.00
\$500,000.01	To	\$1,000,000.00	\$300.00
\$1,000,000.01	To	\$2,000,000.00	\$400.00
\$2,000,000.01	To	\$3,000,000.00	\$500.00
\$3,000,000.01	To	\$4,000,000.00	\$600.00
\$4,000,000.01	To	\$5,000,000.00	\$700.00
\$5,000,000.01	And	Over	\$800.00

2. *Completion of Remaining Work:* After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$XX for each day that expires after such time until the Work is completed and ready for final payment.
 3. Liquidated damages for failing to timely attain Milestones, Substantial Completion, and final completion are not additive, and will not be imposed concurrently.
- B. If Owner recovers liquidated damages for a delay in completion by Contractor, Owner is not precluded from recovering other damages, whether actual, direct, excess, or consequential, for such delay, including for special damages (if any) specified in this Agreement.

4.06 *Special Damages*

- A. Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.
- B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.
- C. The special damages imposed in this paragraph are supplemental to any liquidated damages for delayed completion established in this Agreement.

CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract:
- A. For all Work other than Unit Price Work, a lump sum of \$XX.
All specific cash allowances are included in the above price in accordance with Paragraph 13.02 of the General Conditions.
 - B. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item).

Unit Price Work (Base Bid)

00520- 3

Item No.	Description	Unit	Estimated Quantity	Unit Price	Extended Price
1	MATERIAL AND LABOR TO FURNISH AND INSTALL 12" INFLUENT LINE BUTTERFLY VALVE	EA	4		
2	MATERIAL AND LABOR TO FURNISH AND INSTALL 12" EFFLUENT ROF BUTTERFLY VALVE	EA	4		
3	MATERIAL AND LABOR TO FURNISH AND INSTALL 12" BACKWASH SUPPLY LINE BUTTERFLY VALVE	EA	4		
4	MATERIAL AND LABOR TO FURNISH AND INSTALL 18" BACKWASH WASTE LINE BUTTERFLY VALVE	EA	4		
5	MATERIAL AND LABOR TO FURNISH AND INSTALL 4" SURFACE WATER LINE BUTTERFLY VALVE	EA	4		
6	MATERIAL AND LABOR TO FURNISH AND INSTALL 14" BACKWASH ROF BUTTERFLY VALVE	EA	1		
7	316L STAINLESS STEEL HARDWARE FOR BUTTERFLY VALVES (BOLTS, NUTS, WASHERS, ETC.	LS	1		
8	MATERIAL AND LABOR TO FURNISH AND INSTALL SMART POSITIONER	EA	1		
9	MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL REMOTE CONTROLLER DISPLAY.	EA	5		
10	MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL 18 AWG, SHIELDED TWISTED PAIR CABLING IN ½ INCH EMT CONDUIT TO PROVIDE 4-20mA FROM REMOTE CONTROLLER DISPLAY AND THE SMART POSITIONERS.	EA	5		
11	MATERIAL AND LABOR TO FURNISH AND INSTALL COMPRESSED AIR TUBING, COMPRESSOR AND DRYER AND ALL MISCELLANEOUS EQUIPMENT.	LS	1		

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Unit Price Work (Base Bid)					
Item No.	Description	Unit	Estimated Quantity	Unit Price	Extended Price
12	MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL BRANCH CIRCUIT FOR COMPRESSOR CONSISTING OF 3#10, 1#12 EGC, ½ INCH CONDUIT WITH NEMA1, 30/NF/3 POLE, 480 VOLT SAFETY DISCONNECT SWITCH AND 20/3 POLE BRANCH BREAKER, 14KAIC.	EA	1		
13	MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL BRANCH CIRCUIT CONSISTING OF 2#12, 1#12 EGC, 1/2-INCH CONDUIT WITH LIQUID TIGHT METAL FLEX CONDUIT AND CONDUIT FITTINGS.	EA	2		
14	MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL ROTARY PHNEMATIC ACTUATORS.	EA	21		
15	MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL 316 COMPRESSED AIR ISOLATION VALVES.	LS	1		
13	UTILITY CONTIGENCY ALLOWANCE	LS	1	\$30,000	\$30,000
Total of all Extended Prices for Unit Price Work (subject to final adjustment based on actual quantities)					\$

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

- C. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment) **\$XX**.
- D. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

PAYMENT PROCEDURES**6.01** *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on the basis of Contractor's Applications for Payment on or about the **25th** day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

- 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.

- a. **95** percent of the value of the Work completed (with the balance being retainage); and
- b. **95** percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to **100** percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less **200** percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

6.04 *Consent of Surety*

- A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

6.05 *Interest*

- A. All amounts not paid when due will bear interest at the rate of zero **(0)** percent per annum.

CONTRACT DOCUMENTS7.01 *Contents*

- A. The Contract Documents consist of all of the following:
1. This Agreement.
 2. Bonds:
 - a. Performance bond (together with power of attorney).
 - b. Payment bond (together with power of attorney).
 3. General Conditions.
 4. Supplementary Conditions.
 5. Specifications as listed in the table of contents of the project manual (copy of list attached).
 6. Drawings (not attached but incorporated by reference) consisting of **17** sheets with each sheet bearing the following general title: **D.T.W.T.P. Section 3 Filter Control Valve Replacement**.
 7. Addenda (numbers **1** to **2**, inclusive).
 8. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
 - e. Warranty Bond, if any.
- B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS8.01 *Contractor's Representations*

- A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
1. Contractor has examined and carefully studied the Contract Documents, including Addenda.

2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

8.02 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:
1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

8.03 *Standard General Conditions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C-700, Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions. The Supplementary Conditions may also the terms, conditions and provisions of the General Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on **(Month) (Date), (Year)** (which is the Effective Date of the Contract).

Owner:

Contractor:

City of Edinburg
(typed or printed name of organization)

(typed or printed name of organization)

By: _____
(individual's signature)

By: _____
(individual's signature)

Date: _____
(date signed)

Date: _____
(date signed)

Name: _____
(typed or printed)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Title: _____
(typed or printed)

(If (Contractor Name) is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____
(individual's signature)

Attest: _____
(individual's signature)

Title: _____
(typed or printed)

Title: _____
(typed or printed)

Address for giving notices:

Address for giving notices:

City of Edinburg
415 W. University Drive
Edinburg, TX 78539

Designated Representative:

Designated Representative:

Name: _____
(typed or printed)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Title: _____
(typed or printed)

Address: _____

Address: _____

Phone: _____

Phone: _____

Email: _____

Email: _____

(If City of Edinburg is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

License No.: _____
(where applicable)

State: _____



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SECTION 00510

NOTICE OF AWARD

PART 1 - GENERAL

1.01 SECTION INCLUDES

This section describes the standardized Notice of Award form for use in the project.

1.02 REFERENCES – Not Used

1.03 DEFINITIONS – Section 0700

PART 2 - PRODUCT – Not Used

PART 3 - EXECUTION (FORMS ON FOLLOWING PAGES)

STANDARDIZED FORM FOLLOWS

NOTICE OF AWARD

Date

Owner: City of Edinburg

Owner's Project No.: RFP #2020-

Engineer: Gerardo Carmona Jr., P.E. / Tony Nicanor, P.E.

Project: D.W.T.P. SECTION 3 FILTER CONTROL

Bidder: Name

Bidder's Address: Address

You are notified that Owner has accepted your Proposal dated **(Date)** for the above Contract, and that you are the Successful Proposal and are awarded a Contract for:

Base Proposal

The Contract Price of the awarded Contract is **(Contract Amount)**. Contract Price is subject to adjustment based on the provisions of the Contract, including but not limited to those governing changes, Unit Price Work, and Work performed on a cost-plus-fee basis, as applicable.

Four (4) unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

Drawings will be delivered separately from the other Contract Documents by Engineer of Record.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner **four (4)** counterparts of the Agreement, signed by Bidder (as Contractor).
2. Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Owner will return to you one fully signed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: **City of Edinburg**

By (signature): _____

Name (*printed*): Arturo Martinez

Title: Director of Utilities

Cc: (City of Edinburg – Engineering Department/ Sigma HN Engineers, PLLC)

END OF SECTION

SECTION 00550

NOTICE TO PROCEED

PART 1 - GENERAL

1.01 SECTION INCLUDES

This section describes the standardized Notice to Proceed form for use in the project.

1.02 REFERENCES – Not Used

1.03 DEFINITIONS – Section 0700

PART 2 - PRODUCT – Not Used

PART 3 - EXECUTION

TO BE ISSUED BY ENGINEER

NOTICE TO PROCEED

Date:

To:

Project No.: 2020-07

Project: D.W.T.P. SECTION 3 FILTER CONTROL VALVE REPLACEMENT

You are notified that the Contract Time under the above contract will commence to run on **(Date)**. By this date you are to start performing your obligations under the Contract Documents.

In accordance with the Agreement the date of Substantial Completion is **(Date)** and Final Completion is **(Date)**, respectively.

Before you may start any Work at the site, the General Conditions and Contract Documents provides that you and Owner must each deliver to the other (with copies to ENGINEER) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also before you may start any work at the site you must

1. Notify the City 48 hours prior to beginning construction.
2. _____
3. _____
4. _____
5. _____

Copy to ENGINEER:

City of Edinburg Engineering Department

OWNER: City of Edinburg

By _____
Gerardo Carmona Jr., P.E.

By _____
Arturo Martinez

Engineer 3
Title

Utilities Director
Title

ACCEPTANCE OF NOTICE BY BIDDER

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by _____,
this the _____ day of _____, 20____. (Contractor)

BY: _____

TITLE: _____

END OF SECTION

PERFORMANCE BOND

<p>Contractor Name: [Full formal name of Contractor] Address <i>(principal place of business)</i>: [Address of Contractor’s principal place of business]</p>	<p>Surety Name: [Full formal name of Surety] Address <i>(principal place of business)</i>: [Address of Surety’s principal place of business]</p>
<p>Owner Name: [Full formal name of Owner] Mailing address <i>(principal place of business)</i>: [Address of Owner’s principal place of business]</p>	<p>Contract Description <i>(name and location)</i>: [Owner’s project/contract name, and location of the project] Contract Price: [Amount from Contract] Effective Date of Contract: [Date from Contract]</p>
<p>Bond Bond [Amount] Date of Bond: [Date] <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 16</p>	
<p>Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.</p>	
<p>Contractor as Principal</p>	<p>Surety</p>
<p style="text-align: center;"><i>(Full formal name of Contractor)</i></p> <hr/> <p>By: _____ <i>(Signature)</i></p> <p>Name: _____ <i>(Printed or typed)</i></p> <p>Title: _____</p> <p>Attest: _____ <i>(Signature)</i></p> <p>Name: _____ <i>(Printed or typed)</i></p> <p>Title: _____</p>	<p style="text-align: center;"><i>(Full formal name of Surety) (corporate seal)</i></p> <hr/> <p>By: _____ <i>(Signature)(Attach Power of Attorney)</i></p> <p>Name: _____ <i>(Printed or typed)</i></p> <p>Title: _____</p> <p>Attest: _____ <i>(Signature)</i></p> <p>Name: _____ <i>(Printed or typed)</i></p> <p>Title: _____</p>
<p><i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i></p>	

00610



1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:
 - 3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
 - 3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
 - 3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
 - 5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
 - 5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to

- the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
- 5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
 - 5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
 - 5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
 6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.
 7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
 - 7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
 - 7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
 - 7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
 8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
 9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
 10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
 11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two

years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.

12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
14. Definitions
 - 14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
 - 14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
 - 14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
 - 14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
 - 14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
16. Modifications to this Bond are as follows: [None]

PAYMENT BOND

<p>Contractor Name: [Full formal name of Contractor] Address <i>(principal place of business)</i>: [Address of Contractor’s principal place of business]</p>	<p>Surety Name: [Full formal name of Surety] Address <i>(principal place of business)</i>: [Address of Surety’s principal place of business]</p>
<p>Owner Name: [Full formal name of Owner] Mailing address <i>(principal place of business)</i>: [Address of Owner’s principal place of business]</p>	<p>Contract Description <i>(name and location)</i>: [Owner’s project/contract name, and location of the project] Contract Price: [Amount, from Contract] Effective Date of Contract: [Date, from Contract]</p>
<p>Bond Bond [Amount] Date of Bond: [Date] <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 18</p>	
<p>Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.</p>	
<p>Contractor as Principal</p>	<p>Surety</p>
<p>_____</p> <p><i>(Full formal name of Contractor)</i></p>	<p>_____</p> <p><i>(Full formal name of Surety) (corporate seal)</i></p>
<p>By: _____</p> <p style="text-align: center;"><i>(Signature)</i></p>	<p>By: _____</p> <p style="text-align: center;"><i>(Signature)(Attach Power of Attorney)</i></p>
<p>Name: _____</p> <p style="text-align: center;"><i>(Printed or typed)</i></p>	<p>Name: _____</p> <p style="text-align: center;"><i>(Printed or typed)</i></p>
<p>Title: _____</p>	<p>Title: _____</p>
<p>Attest: _____</p> <p style="text-align: center;"><i>(Signature)</i></p>	<p>Attest: _____</p> <p style="text-align: center;"><i>(Signature)</i></p>
<p>Name: _____</p> <p style="text-align: center;"><i>(Printed or typed)</i></p>	<p>Name: _____</p> <p style="text-align: center;"><i>(Printed or typed)</i></p>
<p>Title: _____</p>	<p>Title: _____</p>
<p><i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i></p>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond will arise after the following:
 - 5.1. Claimants who do not have a direct contract with the Contractor
 - 5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2. Pay or arrange for payment of any undisputed amounts.
 - 7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire

00620

- as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
 9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
 10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
 11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
 12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.
 13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
 14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
 15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1. *Claim*—A written statement by the Claimant including at a minimum:

16.1.1. The name of the Claimant;

16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;

16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;

16.1.4. A brief description of the labor, materials, or equipment furnished;

16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;

16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;

16.1.7. The total amount of previous payments received by the Claimant; and

16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

Modifications to this Bond are as follows: **[None]**

00620

Document 00625

AFFIDAVIT OF INSURANCE

THE STATE OF TEXAS

§ KNOW ALL MEN BY THESE PRESENTS:
§

THE COUNTY OF _____

BEFORE ME, the undersigned authority, on this day personally appeared

_____, who
[Affiant]

being by me duly sworn on his oath stated that he is _____, of
[Title]

[Contractor's Company Name]

the Contractor named and referred to within the Contract Documents; that he is fully competent and authorized to give this affidavit and that the attached original insurance certificate truly and accurately reflects the insurance coverage that is now available and will be available during the term of the Agreement.

[Affiant's Signature]

SWORN AND SUBSCRIBED before me on _____.
[Date]

Notary Public in and for the State of TEXAS

[Print or type Notary Public name]

[Notary Seal]

My Commission Expires: _____
[Expiration Date]

END OF DOCUMENT



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Document 00630

FORM OF BUSINESS

Please, fill in the appropriate area describing your firm's form of business and include the relevant attachments.

Corporation:

Corporate Name: _____
State of Incorporation: _____
Mailing Address: _____

- Certificate of Assumed Name, if operating under a name different than that on the corporate charter (the Certificate must have been issued within the past ten years to be valid)
- Certificate of Good Standing*
- Certificate of Existence (if non-Texas corporation, Certificate of Authority) *

Partnership/Joint Venture:

Partnership/Joint Venture Name: _____
Mailing Address: _____

- Copy of the Partnership or Joint Venture Agreement, or Affidavit with the name of the partnership or joint venture, the names of the individual partners or participants in the joint venture, and a statement that the partnership or joint venture is in existence
- Certificate of Assumed Name, (the Certificate must have been issued within the past ten years to be valid)
- If firm is a limited partnership, the Certificate of Limited Partnership
- If any partner or joint venturer is a corporation, the above information relating to corporation must be included as to each sum partner or joint venturer.

Sole Proprietorship

Name: _____
Mailing Address: _____

- Certificate of Assumed Name, if operating under a name different than that of the sole proprietor (the Certificate must have been issued within the past ten years to be valid)

* *Must be furnished upon request of the Owner and must be less than 90 days old.*

[Typed Name and Title of Authorized Representative]

[Signature of Authorized Representative]

[Typed Date]

END OF DOCUMENT
00630- 1 of 2



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Document 00631

RESOLUTION OF CORPORATION

I hereby certify that it was RESOLVED by a quorum of the directors of

[Name of Corporation / Contractor]

meeting on this _____ day of _____, 20____, that _____,

[Corporate Representative]

be, and hereby is, authorized to act on behalf of the Corporation, as its representative, in all business transactions conducted in the State of Texas, and that the above resolution was unanimously ratified by the Board of Directors at said meeting and that the resolution has not been rescinded or amended and is now in full force and effect; and in authentication of the adoption of this resolution, I subscribe my name and affix the seal of the Corporation on this

_____ day of, _____, 20____.

Secretary/Assistant Secretary

[Seal]

END OF DOCUMENT



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**CONTRACTOR'S RESOLUTION
ON
AUTHORIZED REPRESENTATIVE (ED-104)**

Name or Names

I hereby certify that it was RESOLVED by a quorum of the directors of the

_____, meeting
name of corporation

on the day of _____, 20__, that _____,

_____, and _____, be, and hereby is,

authorized to act on behalf of _____, as its
name of corporation

representative, in all business transactions conducted in the State of Texas, and;

That all above resolution was unanimously ratified by the Board of Directors at said

meeting and that the resolution has not been rescinded or amended and is now in full forces

and effect; and;

In authentication of the adoption of this resolution, I subscribe my name and

affix the seal of the corporation this _____ day of _____, 20__.

Secretary

(seal)



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Document 00635

CONTRACTOR'S ACT OF ASSURANCE

THE STATE OF TEXAS

KNOW ALL MEN BY THESE PRESENTS:

THE COUNTY OF _____

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas,

on this day personally appeared _____, Affiant, [Affiant]

who being by me duly sworn on his oath stated that he is _____, of [Title]

the _____, Contractor, that he is authorized to represent Contractor [Contractor]

pursuant to provisions of a resolution adopted on this _____ day of _____, 20 _____. A duly certified copy of such resolution is attached to and is hereby made a part of this document.

Affiant, in such capacity declares and assures the City of Edinburg that Contractor will construct the Project in accordance with sound construction practice and all laws of the State of Texas.

[Affiant]

SWORN AND SUBSCRIBED before me on this _____ day of _____, 20 ____.

Notary Public in and for the State of TEXAS

[Print or Type Notary Public Name]

[Seal]

My Commission Expires: _____
[Expiration Date]

END OF DOCUMENT



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Document 00640

**CERTIFICATION REGARDING DEPARTMENT,
SUSPENSION AND OTHER RESPONSIBILITY MATTERS**

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal, State, or local department or agency;
- (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction: violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Section 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

[Typed Name of Company:]

[Typed Name & Title of Authorized Representative]

[Signature of Authorized Representative]

[Date]

If unable certify the above statements, explanation is attached.

END OF DOCUMENT



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This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
(800) 548-2723
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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*
 - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by

- Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
 - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
 - d. A demand for money or services by a third party is not a Claim.
11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
 12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
 13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
 14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
 15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
 16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
 17. *Cost of the Work*—See Paragraph 13.01 for definition.
 18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
 19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
 20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
 21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or

communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor’s plan to accomplish the Work within the Contract Times.

32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part

thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
 - a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives*: The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day*: The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective*: The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
1. does not conform to the Contract Documents;
 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and
 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
 - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

A. *Standards Specifications, Codes, Laws and Regulations*

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take

precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

- a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
- b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. Abnormal weather conditions;
 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 4. Acts of war or terrorism.
- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.

Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the

effect of the delay, disruption, or interference on the critical path to completion of the Work.

- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 Availability of Lands

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise;

(b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
 - 2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
 - 3. Technical Data contained in such reports and drawings.
- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.
- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
 3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
 4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
 2. is of such a nature as to require a change in the Drawings or Specifications;
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement

to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Early Resumption of Work*: If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

E. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
- b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
- c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

- a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
- b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
- c. Contractor failed to give the written notice required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

F. *Underground Facilities; Hazardous Environmental Conditions*: Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities.

Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;
 3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written

statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Early Resumption of Work*: If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

F. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;

2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or Regulations, and must be issued and signed by a surety named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the

required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.
- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party’s full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party’s obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner’s option, may purchase and maintain Owner’s own liability insurance. Owner’s liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner’s liability policies for any of Contractor’s obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker’s compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor’s liability policies) on each Subcontractor’s commercial general liability insurance policy; and

2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
 - I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
 - J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
 - K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.
 - L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
 - M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
 - N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 1. include at least the specific coverages required;
 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;

4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds*: The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);
 4. not seek contribution from insurance maintained by the additional insured; and
 5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.

- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.
 - 1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
 - 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.

1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at

Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.
- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 "Or Equals"

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
 - b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.

- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an “or-equal” item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 *Substitutes*

- A. *Contractor’s Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in

Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or

otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.

- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any

license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.

- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to

such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.

- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any

of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 Submittals

A. Shop Drawing and Sample Requirements

1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.
3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.

B. Submittal Procedures for Shop Drawings and Samples: Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.

1. Shop Drawings

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.

2. Samples

- a. Contractor shall submit the number of Samples required in the Specifications.
- b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer

may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Engineer's Review of Shop Drawings and Samples

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.
5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two

resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. *Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.
 - d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.

- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and

2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
1. Observations by Engineer;
 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. Use or occupancy of the Work or any part thereof by Owner;
 5. Any review and approval of a Shop Drawing or Sample submittal;
 6. The issuance of a notice of acceptability by Engineer;
 7. The end of the correction period established in Paragraph 15.08;
 8. Any inspection, test, or approval by others; or
 9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity

directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.

- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.
- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.

- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be

set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 2. An itemization of the specific matters to be covered by such authority and responsibility; and
 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.

- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.
- E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any

Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.
- B. If Owner has issued a Work Change Directive and:
1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving

the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.

- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 - 1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 - 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 - 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit will be determined as follows:
 - 1. A mutually acceptable fixed fee; or
 - 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;

- c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
- d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
- e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
- f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

B. *Change Proposal Procedures*

1. *Submittal*: Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
2. *Supporting Data*: The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review*: Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
 4. *Engineer's Full Review and Action on the Change Proposal*: Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12—CLAIMS

12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 - 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 - 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 - 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 - 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal

and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe

benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
5. Other costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.
 - c. *Construction Equipment Rental*
 - 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment,

machinery, or parts must cease when the use thereof is no longer necessary for the Work.

- 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
 - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded*: The term Cost of the Work does not include any of the following items:
1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. The cost of purchasing, renting, or furnishing small tools and hand tools.
3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
6. Expenses incurred in preparing and advancing Claims.
7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

- E. *Documentation and Audit:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances*: Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.
- E. *Adjustments in Unit Price*
 - 1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

- b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 Access to Work

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 Tests, Inspections, and Approvals

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;
 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved

by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then

Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.

- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

- A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
 - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;

- c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. Payment Becomes Due

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. Reductions in Payment by Owner

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
- a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

- e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
 - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
 - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 Substantial Completion

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.

2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment

bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim, appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
1. correct the defective repairs to the Site or such adjacent areas;
 2. correct such defective Work;
 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as

to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution*: The following disputed matters are subject to final resolution under the provisions of this article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
 - 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes*: For any dispute subject to resolution under this article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
 - 1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
 - 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
 - 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be

as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
(800) 548-2723
www.asce.org

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SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

These Supplementary Conditions amend or supplement EJCDC® C-700, Standard General Conditions of the Construction Contract (2018). The General Conditions remain in full force and effect except as amended.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added—for example, "Paragraph SC-4.05."

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

No suggested Supplementary Conditions in this Article.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

SC-2.01 Delete Paragraphs 2.01.B. and C. in their entirety and insert the following in their place:

- B. *Evidence of Contractor's Insurance:* When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner copies of the policies (including all endorsements, and identification of applicable self-insured retentions and deductibles) of insurance required to be provided by Contractor in this Contract. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- C. *Evidence of Owner's Insurance:* After receipt from Contractor of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor copies of the policies of insurance to be provided by Owner in this Contract (if any). Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.05 *Delays in Contractor's Progress*

SC-4.05 Amend Paragraph 4.05.C by adding the following subparagraphs:

- 5. *Weather-Related Delays*
 - a. If "abnormal weather conditions" as set forth in Paragraph 4.05.C.2 of the General Conditions are the basis for a request for an equitable adjustment in the Contract Times, such request must be documented by data substantiating each of the

following: 1) that weather conditions were abnormal for the period of time in which the delay occurred, 2) that such weather conditions could not have been reasonably anticipated, and 3) that such weather conditions had an adverse effect on the Work as scheduled.

- b. The existence of abnormal weather conditions will be determined on a month-by-month basis in accordance with the following:
 - 1) Every workday on which one or more of the following conditions exist will be considered a “bad weather day”:
 - i) Total precipitation (as rain equivalent) occurring between 7:00 p.m. on the preceding day (regardless of whether such preceding day is a workday) through 7:00 p.m. on the workday in question equals or exceeds average precipitation as rain equivalent for previous 5 years, as determined by National Weather Service.
 - 2) Determination of actual bad weather days during performance of the Work will be based on the weather records measured and recorded by **National Weather Service** weather monitoring station at **Brownsville, TX**.
 - 3) Contractor shall anticipate the number of foreseeable bad weather days per month.
 - 4) In each month, every bad weather day exceeding the number of foreseeable bad weather days will be considered as “abnormal weather conditions.” The existence of abnormal weather conditions will not relieve Contractor of the obligation to demonstrate and document that delays caused by abnormal weather are specific to the planned work activities or that such activities thus delayed were on Contractor’s then-current Progress Schedule’s critical path for the Project.

ARTICLE 5—SITE, SUBSURFACE AND PHYSICAL CONDITIONS, HAZARDOUS ENVIRONMENTAL CONDITIONS

SC 5.02 Remove wording from Paragraph 5.02 A.2 “or otherwise resolve the claim by arbitration or other dispute resolution proceeding.”

5.03 *Subsurface and Physical Conditions*

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.A:

1. *Required Performance Bond Form:* The performance bond that Contractor furnishes will be in the form of EJCDC® C-610, Performance Bond (2010, 2013, or 2018 edition).
2. *Required Payment Bond Form:* The payment bond that Contractor furnishes will be in the form of EJCDC® C-615, Payment Bond (2010, 2013, or 2018 edition).

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.B:

1. After Substantial Completion, Contractor shall furnish a warranty bond issued in the form of EJCDC® C-612, Warranty Bond (2018). The warranty bond must be in a bond amount of **15** percent of the final Contract Price.
2. The warranty bond must be issued by the same surety that issues the performance bond required under Paragraph 6.01.A of the General Conditions.

6.03 *Contractor's Insurance*

SC-6.03 Supplement Paragraph 6.03 with the following provisions after Paragraph 6.03.C:

- E. *Workers' Compensation and Employer's Liability:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

Workers' Compensation and Related Policies	Policy limits of not less than:
Workers' Compensation	
State	Statutory
Applicable Federal (e.g., Longshoreman's)	Statutory
Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable	Statutory
Jones Act (if applicable)	
Bodily injury by accident—each accident	\$100,000.00
Bodily injury by disease—aggregate	\$500,000.00
Employer's Liability	
Each accident	\$100,000.00
Each employee	\$100,000.00
Policy limit	\$500,000.00
Stop-gap Liability Coverage	
For work performed in monopolistic states, stop-gap liability coverage must be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of:	\$500,000.00

- F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:
1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
 2. damages insured by reasonably available personal injury liability coverage, and
 3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

- G. *Commercial General Liability—Form and Content:* Contractor’s commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage.
 - a. Such insurance must be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, including but not limited to coverage of Contractor’s contractual indemnity obligations in Paragraph 7.18.
 3. Severability of interests and no insured-versus-insured or cross-liability exclusions.
 4. Underground, explosion, and collapse coverage.
 5. Personal injury coverage.
 6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
 7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 “Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured” or its equivalent.
- H. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:
1. Any modification of the standard definition of “insured contract” (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).
 2. Any exclusion for water intrusion or water damage.
 3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.
 4. Any exclusion of coverage relating to earth subsidence or movement.
 5. Any exclusion for the insured’s vicarious liability, strict liability, or statutory liability (other than worker’s compensation).
 6. Any limitation or exclusion based on the nature of Contractor’s work.
 7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

I. *Commercial General Liability—Minimum Policy Limits*

Commercial General Liability	Policy limits of not less than:
General Aggregate	\$500,000.00
Products—Completed Operations Aggregate	\$100,000.00
Personal and Advertising Injury	\$250,000.00
Bodily Injury and Property Damage—Each Occurrence	\$500,000.00

- J. *Automobile Liability*: Contractor shall purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy must be written on an occurrence basis.

Automobile Liability	Policy limits of not less than:
Bodily Injury	
Each Person	\$100,000.00
Each Accident	\$500,000.00
Property Damage	
Each Accident	\$100,000.00
[or]	
Combined Single Limit	
Combined Single Limit (Bodily Injury and Property Damage)	\$500,000.00

- K. *Umbrella or Excess Liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer’s liability, commercial general liability, and automobile liability insurance described in the Paragraphs above. The coverage afforded must be at least as broad as that of each and every one of the underlying policies.

Excess or Umbrella Liability	Policy limits of not less than:
Each Occurrence	\$250,000.00
General Aggregate	\$500,000.00

- L. *Using Umbrella or Excess Liability Insurance to Meet CGL and Other Policy Limit Requirements*: Contractor may meet the policy limits specified for employer’s liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy’s policy limits and partial attribution of the policy limits of an umbrella or excess liability policy that is at least as broad in coverage as that of the underlying policy, as specified herein. If such umbrella or excess liability policy was required under this Contract, at a specified minimum policy limit, such umbrella or excess policy must retain a minimum limit of **\$500,000.00** after accounting for partial attribution of its limits to underlying policies, as allowed above.

- M. *Contractor’s Pollution Liability Insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage, including cleanup costs, as a result of

pollution conditions arising from Contractor’s operations and completed operations. This insurance must be maintained for no less than three years after final completion.

Contractor’s Pollution Liability	Policy limits of not less than:
Each Occurrence/Claim	\$100,000.00
General Aggregate	\$100,000.00

- N. *Contractor’s Professional Liability Insurance:* If Contractor will provide or furnish professional services under this *Contract*, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance must cover negligent acts, errors, or omissions in the performance of professional design or related services by the insured or others for whom the insured is legally liable. The insurance must be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. The retroactive date on the policy must pre-date the commencement of furnishing services on the Project.

Contractor’s Professional Liability	Policy limits of not less than:
Each Claim	\$500,000.00
Annual Aggregate	\$1,000,000.00

ARTICLE 7—CONTRACTOR’S RESPONSIBILITIES

7.03 *Labor; Working Hours*

SC-7.03 Add the following new subparagraphs immediately after Paragraph 7.03.C:

1. Regular working hours will be **Monday-Friday 8:00 am to 5:00 pm.**
2. Owner's legal holidays are **Federal recognized holidays.**

SC-7.03 Add the following new paragraph immediately after Paragraph 7.03.C:

- D. **Contractor** shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineer’s services (including those of the Resident Project Representative, if any), Owner's representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. If Contractor is responsible but does not pay, or if the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

7.13 *Safety and Protection*

SC-7.13 Insert the following at the end of the last sentence of Paragraph 7.13.F:

“with at least a 48-hour notice.”

SC-7.18 Delete the following from Paragraph 7.18.A:

“or arbitration”

ARTICLE 8—OTHER WORK AT THE SITE

8.03 *Legal Relationships*

SC-8.03 Delete the following from Paragraph 8.03.C:

“or otherwise resolve the claim by arbitration or other dispute resolution proceeding”

ARTICLE 9—OWNER’S RESPONSIBILITIES

ARTICLE 10—ENGINEER’S STATUS DURING CONSTRUCTION

10.03 *Resident Project Representative*

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.B:

- C. The Resident Project Representative (RPR) will be Engineer's representative at the Site. RPR's dealings in matters pertaining to the Work in general will be with Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The RPR will:
1. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor’s safety meetings), and as appropriate prepare and circulate copies of minutes thereof.
 2. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR’s own personal safety while at the Site.
 3. *Liaison*
 - a. Serve as Engineer’s liaison with Contractor. Working principally through Contractor’s authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner’s liaison with Contractor when Contractor’s operations affect Owner’s on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for Contractor’s proper execution of the Work.
 4. *Review of Work; Defective Work*
 - a. Conduct on-Site observations of the Work to assist Engineer in determining, to the extent set forth in Paragraph 10.02, if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Observe whether any Work in place appears to be defective.
 - c. Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection or approval.

5. *Inspections and Tests*
 - a. Observe Contractor-arranged inspections required by Laws and Regulations, including but not limited to those performed by public or other agencies having jurisdiction over the Work.
 - b. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work.
 6. *Payment Requests: Review Applications for Payment with Contractor.*
 7. *Completion*
 - a. Participate in Engineer's visits regarding Substantial Completion.
 - b. Assist in the preparation of a punch list of items to be completed or corrected.
 - c. Participate in Engineer's visit to the Site in the company of Owner and Contractor regarding completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.
 - d. Observe whether items on the final punch list have been completed or corrected.
- D. The RPR will not:
1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
 3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction.
 5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
 6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
 7. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 11—CHANGES TO THE CONTRACT

No suggested Supplementary Conditions in this Article.

ARTICLE 12—CLAIMS

No suggested Supplementary Conditions in this Article.

ARTICLE 13—COST OF WORK; ALLOWANCES, UNIT PRICE WORK

13.01 *Cost of the Work*

SC-13.01 Supplement Paragraph 13.01.B.5.c.(2) by adding the following sentence:

The equipment rental rate book that governs the included costs for the rental of machinery and equipment owned by Contractor (or a related entity) under the Cost of the Work provisions of this Contract is the most current edition of **Rental Rate Blue Book for Construction Equipment**.

13.03 *Unit Price Work*

SC-13.03 Delete Paragraph 13.03.E in its entirety and insert the following in its place:

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the extended price of a particular item of Unit Price Work amounts to 5 percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than 15 percent from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

No suggested Supplementary Conditions in this Article.

ARTICLE 15—PAYMENTS TO CONTRACTOR, SET OFFS; COMPLETIONS; CORRECTION PERIOD

15.03 *Substantial Completion*

SC-15.03 Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, will be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under this Article 15.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

No suggested Supplementary Conditions in this Article.

ARTICLE 17—FINAL RESOLUTIONS OF DISPUTES

SC-17.02 Add the following new paragraph immediately after Paragraph 17.01.

17.02 *Arbitration*

- A. Arbitration as a dispute resolution is deleted in its entirety in the contract, general and supplementary conditions.

ARTICLE 18—MISCELLANEOUS

SECTION 00830

WARRANTY**PART 1 - GENERAL****1.01 SECTION INCLUDES**

This section describes the warranty. The conditions contained in this Section are specific administrative and policy requirements in addition to the general conditions and other requirements listed in the contract documents.

1.02 REFERENCES – Not Used**1.03 DEFINITIONS – Section 0700****1.04 CONTRACTOR'S WARRANTY OF TITLE**

CONTRACTOR warrants and guarantees that all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

1.05 SUBSTANTIAL COMPLETION

- A. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefore. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within 14 days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefore. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said 14 days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.
- B. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

1.06 PARTIAL UTILIZATION

- A. Use by OWNER at OWNER's option of any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which OWNER, ENGINEER, and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following conditions.
- B. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefore. If ENGINEER considers that part of the Work to be substantially complete, the above provisions will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto. No occupancy or separate operation of part of the Work may occur prior to compliance with the requirement of regarding property insurance.

1.07 FINAL INSPECTION

- A. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will promptly make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

1.08 FINAL PAYMENT

- A. Application for Payment
1. After CONTRACTOR has, in the opinion of ENGINEER, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in paragraph 6.12), and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.
 2. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required; (ii) consent of the surety, if any, to final payment; and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified above and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

B. Review of Application and Acceptance

If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application for Payment to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the above provisions. Otherwise, ENGINEER will return the Application for Payment to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due

Thirty days after the presentation to OWNER of the Application for Payment and accompanying documentation, the amount recommended by ENGINEER will become due and, when due, will be paid by OWNER to CONTRACTOR.

D. Final Completion Delayed

If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required above, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

1.09 WAIVER OF CLAIMS

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to the above, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and
2. a waiver of all Claims by CONTRACTOR against OWNER other than those previously made in writing which are still unsettled.

END OF SECTION

This Addendum uses the change page method: remove and replace or add pages, or Drawing sheets, as directed in the change instructions below. Change bars (|) are provided in the right margins of pages from the Project Manual to indicate where changes have been made; no change bars are provided in added Sections. Reissued Drawing Sheets show the Addendum number above the title block and changes in the Drawing are noted by a revision mark.

Number each item of the Addendum beginning with 1 through the total number of change items in the Addendum. Sample entries are provided in brackets.

CHANGES TO PREVIOUS ADDENDA

Reference Addendum Number and item number to correct clarifications or make minor corrections of changes issued by previous Addenda.

ADDENDUM NO. _____

[1. Add item]

CHANGES TO PROJECT MANUAL

Follow this format to sequence changes to the Project Manual.

BIDDING REQUIREMENTS

Give the individual change instructions for each item of change by Document number and title. List changes in order of Document number.

[2. Add Item]

CONTRACT FORMS

[3. Add Item]

CONDITIONS OF THE CONTRACT

[4. Add Item]

SPECIFICATIONS

[5. Add Item]



CHANGES TO DRAWINGS

[6. Add Item]

CLARIFICATIONS

[7. Add Item]

MINUTES OF PRE-BID CONFERENCE

Minutes of the Pre-Bid Conference held on _____, _____, 20____, are
[Day] [Date]
attached as a record and for the Bidders information.

END OF ADDENDUM NO. _____

Name, P.E. DATED: _____

END OF DOCUMENT

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DOCUMENT 00910

MODIFICATIONS**PART 1 - GENERAL****1.01 SECTION INCLUDES**

This section contains information pertaining to modifications and changes for the Contract Documents for the Project.

1.02 REFERENCES – Not Used**1.03 DEFINITIONS - Section 0700****1.04 MODIFICATIONS OF CONTRACT DOCUMENTS**

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways: (i) a Written Amendment; (ii) a Change Order; or (iii) a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented and minor variations and deviations in the Work may be authorized, by one or more of the following ways: (i) a Field Order; (ii) Engineer's approval of a Shop Drawing or Sample; or (iii) Engineer's written interpretation or clarification.
- C. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work under a direct or indirect contract with Owner: (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's Consultant, including electronic media editions; and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adoption by Engineer. This prohibition will survive final payment, completion, and acceptance of the Work, or termination or completion of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

PART 2 - PRODUCT – Not Used**PART 3 - EXECUTION – Not Used**

END OF SECTION

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SECTION 01010

SCOPE OF WORK

This Scope of Work and any accompanying drawings are intended as a guide to the Contractor in identifying the work to be accomplished in completing this project. This Scope of Work may not be all inclusive and the Contractor shall be responsible for providing all supervision, labor, materials, equipment, direction, and coordination necessary to perform and totally complete the work in conformance with the drawings and specifications. If an "or equal" substitution is made for any of the recommended items shown in the specifications or drawings, the Contractor shall be responsible for providing all the necessary physical modifications to fully accommodate the substitution at no change in contract price.

PART 1. GENERAL**1.01 CIVIL**

- A. Provide all civil work per specifications and drawings

1.02 CONSTRUCTION RECORD DRAWINGS

- A. The Contractor shall maintain a complete master set of construction "red-line" drawings to document any field changes to the "Issued for Construction" drawing set which shall accurately depict the "As-Built" construction of the plans. Following completion, this drawing set shall be turned over to the Engineer for updating the Record "As-Built" drawings.
- B. Any drawings and documentation which are to be supplied by the Contractor, shall be updated to accurately depict the "As-Built" construction of the plans and turned over to the Engineer following Substantial Completion of the project. These items shall be certified by the Contractor's Project Manager as accurate and complete.

1.03 SUBCONTRACTOR COORDINATION

The Contractor shall be responsible for coordination of the work between his various subcontractors to prevent conflicts and schedule interruptions.

1.04 SAFETY REQUIREMENTS

- A. The Contractor shall provide all safety equipment required by his employees to meet Occupational Safety and Health Administration (OSHA) safety requirements.

END OF SECTION 01010

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Section 01110

SUMMARY OF WORK**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Summary of the Work including work by Owner, Owner furnished products, Work sequence, future Work, Contractor use of Premises, and Owner occupancy.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work of the contract is for the construction of the D.W.T.P. SECTION 3 FILTER CONTROLL VALVE REPLACEMENT including, but not limited to replacement of valves, actuators, compressed air equipment and controls.

1.03 CASH ALLOWANCES

- A. Include the Cash Allowances shown in the Proposal, if any.

1.04 ALTERNATES

- A. Include the Alternates shown in the Proposal, if any.

1.05 OWNER FURNISHED PRODUCTS

- A. The Owner will furnish no products.

1.06 OWNER FURNISHED UTILITIES

- A. The Owner will furnish no utilities.

1.07 WORK SEQUENCE

- A. Work sequence will be the responsibility of the Contractor using good construction practices.
- B. Coordination of the Work: Refer to Section 01312 – Coordination and Meetings.

1.08 CONTRACTOR USE OF PREMISES

- A. Comply with procedures for access to the site and Contractor's use of rights-of-way as specified in Section 01145 - Use of Premises.
- B. Construction Operations: Limited to Owner's rights-of-way provided by Owner.
- C. Utility Outages and Shutdown: Provide notification to the Owner and private utility companies (when applicable) a minimum of 48 hours, excluding weekends and holidays, in advance of required utility shutdown. Coordinate all work as required.

1.09 WARRANTY

- A. Comply with warranty requirements in accordance with Document 00700 - General Conditions.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

Section 01145

USE OF PREMISES**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Section includes general use of the site including properties inside and outside of rights-of-way, work affecting road, ramps, streets and driveways and notification to adjacent occupants.
- B. Contractor is responsible to document existing conditions prior to commencement of the specified work.

1.02 RIGHTS-OF-WAY

- A. Confine access and operations and storage areas to rights-of-way provided by Owner as stipulated in Document 00700 - General Conditions; trespassing on abutting lands or other lands in the area is not allowed.
- B. Contractor may make arrangements, at Contractor's cost, for temporary use of private properties, in which case Contractor and Contractor's surety shall indemnify and hold harmless the Owner against claims or demands arising from such use of properties outside of rights-of-way.
- C. Restrict total length which materials may be distributed along the route of the construction at any one time to 1,000 linear feet unless otherwise approved in writing by Resident Project Representative.

1.03 PROPERTIES OUTSIDE OF RIGHTS-OF-WAY

- A. Altering the condition of properties adjacent to and along rights-of-way will not be permitted.
- B. Means, methods, techniques, sequences, or procedures which will result in damage to properties or improvements in the vicinity outside of rights-of-way will not be permitted.
- C. Any damage to properties outside of rights-of-ways shall be repaired or replaced to the satisfaction of the Resident Project Representative and at no cost to the Owner.

1.04 USE OF SITE

- A. Obtain approvals of governing authorities prior to impeding or closing public roads or streets. Do not close more than two consecutive intersections at one time.
- B. Notify Resident Project Representative at least 48 hours prior to closing a street for a street crossing. Permission for street closures is required in advance and is the responsibility of the Contractor.
- C. Maintain access for emergency vehicles including access to fire hydrants.
- D. Avoid obstructing drainage ditches or inlets; when obstruction is unavoidable due to requirements of the Work, provide grading and temporary drainage structures to maintain unimpeded flow.

- E. Locate and protect private lawn sprinkler systems which may exist on rights-of-ways within the site. Repair or replace damaged systems to condition equal to or better than that existing at start of Work at no separate payment.
- F. Perform daily clean-up of dirt outside the construction zone, and debris, scrap materials, and other disposable items. Keep streets, driveways, and sidewalks clean of dirt, debris and scrap materials. Do not leave building, roads, streets or other construction areas unclean overnight.

1.05 NOTIFICATION TO ADJACENT OCCUPANTS

- A. Notify individual occupants in areas to be effected by the Work of the proposed construction and time schedule. Notification shall be not less than 72 hours or more than 2 weeks prior to work being performed within 200 feet of the homes or businesses.
- B. Include in notification names and telephone numbers of two company representatives for resident contact, who will be available on 24-hour call. Include precautions which will be taken to protect private property and identify potential access or utility inconvenience or disruption.
- C. Consideration shall be given to the ethnicity of the neighborhood where English is not the dominant language. Notice shall be in an understandable language.

1.06 PUBLIC, TEMPORARY, AND CONSTRUCTION ROADS AND RAMPS

- A. Construct and maintain temporary detours, ramps, and roads to provide for normal public traffic flow when use of public roads or streets is closed by necessities of the Work.
- B. Provide mats or other means to prevent overloading or damage to existing roadways from tracked equipment or large or heavy trucks or equipment.

1.07 EXCAVATION IN STREETS AND DRIVEWAYS

- A. Avoid needless hindering or inconveniencing public travel on a street or any intersecting alley or street for more than two blocks at any one time.
- B. Remove surplus materials and debris and open each block for public use as work in that block is complete.
- C. Acceptance of any portion of the Work will not be based on return of street to public use.
- D. Avoid obstructing driveways or entrances to private property.
- E. Provide temporary crossing or complete the excavation and backfill in one continuous operation to minimize the duration of obstruction when excavation is required across drives or entrances.

1.08 TRAFFIC CONTROL

- A. Traffic Control Plan must be prepared by a Licensed Professional Engineer. Any deviation from approved plan must be submitted in the form of an RFI. Provide traffic control, flagmen, signals, control devices, lights, traffic signals, barricades and signs in accordance with the State of Texas Manual on Uniform Traffic Control Devices, as required.

1.09 SURFACE RESTORATION

- A. Restore site to condition existing before construction to satisfaction of Resident Project Representative.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

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SECTION 01150

PROJECT PROCEDURAL DEFINITIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This section defines and explains certain terms in order to minimize potential misunderstandings between the Owner, the Owner’s Resident Project Representative, Contractor, and Engineer.

1.02 TERMS, DEFINITIONS, AND EXPLANATIONS

- A. Drawing/Plan Clarification: An answer from the Resident Project Representative or Engineer, in response to an inquiry from the Contractor, intended to make some requirement(s) of the Drawings or Plans clearly understood. Drawing/Plan clarifications may be sketches, drawings, or in narrative form and will not change any requirements of the Drawings or Plans. Responses to Contractor inquiries shall be outlined in Section 01151.
- B. Notice of Defects: A notice issued by the Engineer documenting that the work or some portion thereof has not been performed in accordance with the requirements of the Contract Documents. Payment shall not be made on any portion of the work for which a Notice of Defect has been issued and the work not corrected to the satisfaction of the Engineer. Upon receipt of a Notice of Defect, the Contractor shall provide a written Response to Notice of Defect within ten (10) working days after receipt of the Notice. The Contractor’s response shall be in accordance with Article 13 of the General Conditions.

If the Contractor disputes issuance of the Notice of Defect, the Resident Project Representative has ten (10) working days in which to respond by either:

- 1. withdrawing the Notice of Defect, or
- 2. Directing the Contractor to correct the work. Such determination by the Resident Project Representative shall be final and conclusive of the matter.

If directed to correct the work, the Contractor shall do so within ten (10) working days after receipt of such direction from the Resident Project Representative, or such other time as may be agreed to with the Resident Project Representative.

- C. Project Communications: Routine written communications between the Owner, Engineer, and the Contractor shall be in letter or field memo format. Such communications shall not be identified as Requests for Information or Request for Technical Instructions nor shall they substitute for any other written requirement pursuant to the provisions of these Contract Documents.
- D. Request for Information/Request for Technical Instructions: A request from the Contractor, to the Resident Project Representative or Engineer, seeking an interpretation or a clarification of some requirement of the Contract Documents. The Contractor shall clearly and concisely set forth the issue for which it seeks clarification or interpretation and why a response is needed from the Resident Project Representative or Engineer. The Contractor shall, in the written request, set forth its interpretation or understanding of the Contract’s requirements along with reasons why it has reached such an understanding. Responses from the Resident Project Representative or Engineer will not change any requirements of the Contract Documents.

Responses to Contractor inquiries shall be as outlined in Section 01151.

- E. Substitution/Or-Equal Submittals: A written request from the Contractor to substitute a material, article, device, product, fixture, form, type of construction, or process called for in the Contract Documents with another item that shall be substantially equal in all respects to that so indicated or supplied.
- F. Schedule Submittals: When required, the Contractor shall submit schedules, schedule updates, schedule revisions, time impact analysis, etc., for review and acceptance.

PART 2 PRODUCTS – Not Used

PART 3 EXECUTION – Not Used

END OF SECTION

SECTION 01151

**REQUESTS FOR INFORMATION / REQUESTS FOR
TECHNICAL INSTRUCTIONS (RFI'S/RFTI'S)****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Section includes mandatory procedures and sets forth policies to be followed in requesting technical information or clarification.

1.02 PROCEDURES AND POLICIES

- A. In the event that the Contractor or Subcontractor, at any tier, determines that some portions of the Drawings, Specifications, or other Contract Documents require clarification or interpretation by the Owner or Engineer, the Contractor shall submit a Request for Information or a Request for Technical Instructions in writing to the Resident Project Representative. RFI's/RFTI's may only be submitted by the Contractor. The Contractor shall clearly and concisely set forth the issue for which clarification or interpretation is sought and why a response is needed. In the RFI/RFTI, the Contractor shall set forth an interpretation or understanding of the requirement along with reasons why such an understanding was reached.
- B. The Owner acknowledges that this is a complex project and its successful completion will be a cooperative effort between all parties. The Owner does not intend to limit or restrict communications between any of the parties.
- C. The Resident Project Representative will review all RFI's/RFTI's to determine whether they are Requests for Information or Request for Technical Instructions within the meaning of this term. If the Resident Project Representative determines that the document is not an RFI/RFTI, it will be returned to the Contractor, unreviewed as to content, for resubmittal in the proper manner.
- D. Responses to Requests for Information/Request for Technical Instructions shall be issued within ten (10) working days of receipt of the request from the Contractor unless the Resident Project Representative or Engineer determines that a longer time is necessary to provide an adequate response. If a longer time is determined necessary by the Resident Project Representative or Engineer, they will, within ten (10) working days of the receipt of the request, notify the Contractor of the anticipated response time. If the Contractor submits a Request for Information /Request for Technical Instructions on an activity within ten (10) working days or less of float on the current project schedule, the Contractor shall not be entitled to any time extension due to the time it takes the Resident Project Representative or Engineer to respond to the request provided that the Resident Project Representative or Engineer responds within ten (10) working days set forth above.
- E. Responses from the Resident Project Representative or Engineer will not change any requirement of the Contract Documents. In the event the Contractor believes that a response to a Request for Information / Request for Technical Instructions will cause a change to the requirements of the Contract Document, the Contractor shall immediately give written notice to the Engineer stating that the Contractor considers that the response warrants a Change Order. Failure to give such written notice within ten (10) working days shall waive the Contractor's right to seek additional time or cost under the General Conditions.

PART 2 PRODUCTS – Not Used

PART 3 EXECUTION – Not Used

END OF SECTION

Section 01255

CHANGE ORDER PROCEDURES**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Procedures for processing Change Orders, including:
 - 1. Assignment of a responsible individual for approval and communication of changes in the Work;
 - 2. Documentation of change in Contract Price and Contract Time;
 - 3. Change procedures, using proposals and construction contract modifications, work change directive, stipulated price change order, unit price change order, time and materials change order;
 - 4. Execution of Change Orders;
 - 5. Correlation of Contractor submittals.

1.02 REFERENCES

- A. Rental Rate Blue Book for Construction Equipment (Data Quest Blue Book). Rental Rate is defined as the full, unadjusted base rental rate for the appropriate item of construction equipment.

1.03 RESPONSIBLE INDIVIDUAL

- A. Contractor shall provide a letter indicating the name and address of the individual authorized to execute change documents, and who shall also be responsible for informing others in Contractor's employ and Subcontractors of changes to the Work. The information shall be provided at the Pre-construction Conference.

1.04 DOCUMENTATION OF CHANGE IN CONTRACT PRICE AND CONTRACT TIME

- A. Contractor shall maintain detailed records of changes in the Work. Provide full information required for identification and evaluation of proposed changes, and to substantiate costs of changes in the Work.
- B. Contractor shall document each proposal for a change in cost or time with sufficient data to allow evaluation of the proposal.
- C. Proposals shall include, as a minimum, the following information as applicable:
 - 1. Quantities of items in the original Document 00405 - Schedule of Unit Price Work with additions, reductions, deletions, and substitutions.
 - 2. When Work items were not included in the Schedule of Unit Price Work, Contractor shall provide unit prices for the new items, with supporting information as required by the Engineer.

3. Justification for any change in Contract Time.
 4. Additional data upon request.
- D. For changes in the Work performed on a time-and-material basis, the following additional information may be required:
1. Quantities and description of products and equipment.
 2. Taxes, insurance and bonds.
 3. Overhead and profit.
 4. Dates and times work was performed, and by whom.
 5. Time records and certified copies of applicable payrolls.
 6. Invoices and receipts for products, rented equipment, and subcontracts, similarly documented.
- E. For changes in the work performed on a time-and-materials basis, rental equipment will be paid as follows:
1. Rented equipment will be paid by actual invoice cost for the duration of time required to complete the extra work without markup for overhead and profit. If the extra work comprises only a portion of the rental invoice where the equipment would otherwise be on the site, the Contractor shall compute the hourly equipment rate by dividing the actual monthly invoice by 176. (One day equals 8 hours and one week equals 40 hours.)
 2. Operating costs shall not exceed the estimated operating costs given in the Blue Book for the item of equipment. Overhead and profit will be allowed on operating cost.
- F. For changes in the work performed on a time-and-materials basis using Contractor-owned equipment, use Blue Book rates as follows:
1. Contractor-owned equipment will be paid at the Blue Book Rental Rate for the duration of time required to complete the extra work without markup for overhead and profit. The Rental Rate utilized shall be the lowest cost combination of hourly, daily, weekly or monthly rates. Use 150 percent of the Rental Rate for double shifts (one extra shift per day) and 200 percent of the Rental Rate for more than two shifts per day. Standby rates shall be 50 percent of the appropriate Rental Rate shown in the Blue Book. No other rate adjustments shall apply.
 2. Operating costs shall not exceed the estimated operating costs given in the Blue Book for the item of equipment. Overhead and profit will be allowed on operating cost. Operating costs will not be allowed for equipment on standby.

1.05 CHANGE PROCEDURES

- A. Changes to Contract Price or Contract Time can only be made by issuance of a Change Order. Issuance of a Work Change Directive will be formalized into a Change Order. All changes will be in accordance with the requirements of Document 00700 - General Conditions.

- B. The Engineer will advise of minor changes in the Work not involving an adjustment to Contract Price or Contract Time as authorized by the General Conditions by issuing supplemental instructions.
- C. Contractor may request clarification of Drawings, Specifications or Contract Documents or other information by using a Request for Information. Response by the Engineer to a Request for Information does not authorize the Contractor to perform tasks outside the scope of the Work. All changes must be authorized as described in this section.
- D. Change Orders for work not specified in Section 00405 – Schedule of Unit Price Work – shall be done as per Section 1.04 (C). Part 2 above.

1.06 PROPOSALS AND CONTRACT MODIFICATIONS

- A. The Engineer may issue a Request for Proposal, which includes a detailed description of a proposed change with supplementary or revised Drawings and Specifications. The Engineer may also request a proposal in the response to a Request for Information. Contractor shall prepare and submit a proposal within 7 days or as specified in the request.
- B. The Contractor may propose an unsolicited change by submitting a proposal to the Engineer describing the proposed change and its full effect on the Work, with a statement describing the reason for the change and the effect on the Contract Price and Contract Time including full documentation.

1.07 WORK CHANGE DIRECTIVE

- A. Engineer may issue a signed Work Change Directive instructing the Contractor to proceed with a change in the Work. A Work Change Directive will subsequently be incorporated in a Change Order.
- B. The document will describe changes in the Work and will designate a method of determining any change in Contract Price or Contract Time.
- C. Contractor shall proceed promptly to execute the changes in the Work in accordance with the Work Change Directive.

1.08 STIPULATED PRICE CHANGE ORDER

- A. A stipulated price Change Order will be based on an accepted proposal including the Contractor's lump sum price quotation with Schedule of Values.

1.09 UNIT PRICE CHANGE ORDER

- A. Where Unit Prices for the affected items of Work are included in Document 00405 - Schedule of Unit Price Work, the unit price Change Order will be based on the unit prices.
- B. Where unit prices of Work are not pre-determined in the Document 00405 - Schedule of Unit Price Work, the Work Change Directive or accepted proposal will specify the unit prices to be used.

1.10 TIME-AND-MATERIAL CHANGE ORDER

- A. Contractor shall provide an itemized account and supporting data after completion of change.
- B. Engineer will determine the change allowable in Contract Price and Contract Time as provided in Document 00700 - General Conditions.
- C. Contractor shall maintain detailed records of work done on time-and-material basis as specified in paragraph 1.04, Documentation of Change in Contract Price and Contract Time.
- D. Contractor shall provide full information required for evaluation of changes and shall substantiate costs for changes in the Work.

1.11 EXECUTION OF CHANGE DOCUMENTATION

- A. Engineer will issue Change Orders, Work Change Directives, or accepted proposal for signatures of parties as described in Document 00700 - General Conditions.

1.12 CORRELATION OF CONTRACTOR SUBMITTALS

- A. For Stipulated Price Contracts, Contractor shall promptly revise the Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item.
- B. For Unit Price Contracts, the next monthly estimate of work after acceptance of a Change Order will be revised to include any new items not previously included and the appropriate unit rates.
- C. Contractor shall promptly revise progress schedules to reflect any change in Contract Time, and shall revise schedules to adjust time for other items of work affected by the change, and resubmit for review.
- D. Contractor shall promptly enter changes to the on-site and record copies of the Drawings, Specifications or Contract Documents as required in Section 01785 - Project Record Documents.

PART 2 PRODUCTS - Not Used**PART 3 EXECUTION - Not Used**

END OF SECTION

Section 01270

MEASUREMENT AND PAYMENT**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Procedures for measurement and payment plus conditions for nonconformance assessment and nonpayment for rejected products.

1.02 AUTHORITY

- A. Measurement methods delineated in Specification sections are intended to complement the criteria of this section. In the event of conflict, the requirements of the Specification section shall govern.
- B. Resident Project Representative will take all measurements and compute quantities accordingly.
- C. Contractor shall assist by providing necessary equipment, workers, and survey personnel as required by Resident Project Representative.

1.03 UNIT QUANTITIES SPECIFIED

- A. Quantity and measurement estimates stated in the Agreement are for contract purposes only. Quantities and measurements supplied or placed in the Work and verified by Resident Project Representative shall determine payment as stated in Article 9 of the General Conditions.
- B. If the actual Work requires greater or lesser quantities than those quantities indicated in the Bid Form, provide the required quantities at the unit prices contracted, except as otherwise stated in Article 9 of the General Conditions.

1.04 MEASUREMENT OF QUANTITIES

- A. Measurement by Weight: Reinforcing steel, rolled or formed steel or other metal shapes will be measured by CRSI or AISC Manual of Steel Construction weights. Welded assemblies will be measured by CRSI or AISC Manual of Steel Construction or scale weights.
- B. Measurement by Volume:
 - 1. Stockpiles: Measured by cubic dimension using mean length, width, and height or thickness.
 - 2. Excavation and Embankment Materials: Measured by cubic dimension using the average end area method.
- C. Measurement by Area: Measured by square dimension using mean length and width or radius.
- D. Linear Measurement: Measured by linear dimension, at the item centerline.
- E. Stipulated Price Measurement: By unit designated in the agreement.

- F. Other: (Including but not limited to each and lump sum). Items measured by weight, volume, area, or lineal means or combination, as appropriate, as a completed item or unit of the Work.

1.05 PAYMENT

- A. Payment Includes: Full compensation for all required supervision, labor, products, tools, equipment, plant, transportation, services, and incidentals; and erection, application or installation of an item of the Work; and Contractor's overhead and profit.
- B. Total compensation for required Unit Price Work shall be included in Unit Price bid in Document 00405 - Schedule of Unit Price Work.
- C. Interim payments for stored materials will be made only for materials to be incorporated under items covered in unit prices, unless disallowed in Supplementary Conditions.
- D. Progress payments will be based on the Resident Project Representative's observations and evaluations of quantities incorporated in the Work multiplied by the unit price.
- E. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities determined by Engineer multiplied by the unit price for Work which is incorporated in or made necessary by the Work.

1.06 NONPAYMENT FOR REJECTED PRODUCTS

- A. Payment will not be made for any of the following:
1. Products wasted or disposed of in a manner that is not acceptable to Resident Project Representative.
 2. Products determined as nonconforming before or after placement.
 3. Products not completely unloaded from transporting vehicle.
 4. Products placed beyond the lines and levels of the required Work.
 5. Products remaining on hand after completion of the Work, unless specified otherwise.
 6. Loading, hauling, and disposing of rejected products.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

Section 01292

SCHEDULE OF VALUES**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Preparation and submittal of a Schedule of Values for stipulated price contracts or for major lump sum items on unit price contracts for which the Contractor requests progress payments.

1.02 DEFINITION

- A. The Schedule of Values is an itemized list that establishes the value of each part of the Work for a stipulated price contract and for major lump sum items in a unit price contract. The Schedule of Values is used as the basis for preparing applications for payments. Quantities and unit prices may be included in the schedule when designated by the Engineer.

1.03 PREPARATION

- A. For stipulated price contracts, subdivide the Schedule of Values into logical portions of the Work, such as major work items or work in contiguous geographic areas. Use Section 01325 - Construction Schedule to guide the subdivision of work items. The items in the Schedule of Values will correlate directly with the tasks enumerated in the Construction Schedule. Then organize each portion using the Table of Contents of this Project Manual as an outline for listing the value of work by Sections. A pro rata share of mobilization, bonds, and insurance may be listed as separate items for each portion of the work.
- B. For unit price contracts, items should include a proportional share of Contractor's overhead and profit so that the total of all items will equal the Contract Price.
- C. For lump sum equipment items where submittal of operation/maintenance data and testing are required, include a separate item for equipment operation and maintenance data submittal valued at 5 percent of the lump sum amount for each equipment item and a separate item for testing and adjusting valued at 5 percent of the lump sum amount for each equipment item.
- D. Round off figures for each listed item to the nearest \$100.00 except for the value of one item, if necessary, to make the total of all items in the Schedule of Values equal the Contract Price for stipulated price contracts or the lump sum amount in the Schedule of Unit Price Work.
- E. Type the schedule of values on 8-1/2-inch by 11-inch white bond paper.

1.04 SUBMITTAL

- A. Submit within 30 days of Notice to Proceed, or at the pre-construction meeting, whichever occurs sooner.
- B. Revise the Schedule of Values and resubmit for items affected by contract modifications, change orders, and work change directives. After the changes are reviewed without exception by the

Engineer, make the submittal at least 10 days prior to submitting the next application for progress payment.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

Section 01312

COORDINATION AND MEETINGS**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Section includes general coordination including preconstruction conference, site mobilization conference, and progress meetings.

1.02 RELATED DOCUMENTS

- A. Coordination is required throughout the documents. Refer to all of the Contract Documents and coordinate as necessary.

1.03 ENGINEER AND REPRESENTATIVES

- A. The Engineer may act directly or through designated representatives as defined in the General Conditions and as identified by name at the preconstruction conference.

1.04 CONTRACTOR COORDINATION

- A. Coordinate scheduling, submittals, and Work of the various Specifications sections to assure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify that utility requirement characteristics of operating equipment are compatible with existing or planned utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Conceal pipes, ducts, and wiring within the construction in finished areas, except as otherwise indicated. Coordinate locations of fixtures and outlets with finish elements.
- D. Coordinate completion and clean up of Work for Substantial Completion and for portions of Work designated for Owner's partial occupancy.
- E. Coordinate access to site for correction of nonconforming Work to minimize disruption of Owner's activities where Owner is in partial occupancy.

1.05 PRECONSTRUCTION CONFERENCE

- A. Engineer will schedule a preconstruction conference.
- B. Attendance Required: Owner's Representatives, Engineer's Representatives, Resident Project Representative, Contractor and major Subcontractors.
- C. Agenda:
 - 1. Distribution of Contract Documents.
 - 2. Designation of personnel representing the parties in Contract, and the Engineer.
 - 3. Review of insurance.

4. Discussion formats proposed by the Contractor for schedule of values (if any), and construction schedule.
5. Procedures and processing of shop drawings and other submittals, substitutions, pay estimates or applications for payment, Requests for Information, Request for Proposal, Change Orders, and Contract closeout.
6. Scheduling of the Work and coordination with other contractors and utility service providers.
7. Review of Subcontractors.
8. Appropriate agenda items listed for Site Mobilization Conference, paragraph 1.06C, when preconstruction conference and site mobilization conference are combined.
9. Procedures for testing.
10. Procedures for maintaining record documents.
11. Other items as may be deemed appropriate.

1.06 SITE MOBILIZATION CONFERENCE

- A. When required by the Contract Documents, Engineer will schedule a conference at the Project site prior to Contractor occupancy.
- B. Attendance Required: Engineer representatives, Resident Project Representative, Special Consultants, Contractor's Superintendent, and major Subcontractors.
- C. Agenda:
 1. Use of premises by Owner and Contractor.
 2. Safety and first aid procedures.
 3. Construction controls provided by Owner.
 4. Temporary utilities.
 5. Survey and layout.
 6. Security and housekeeping procedures.
 7. Field office requirements.

1.07 PROGRESS MEETINGS

- A. Project meetings shall generally be held at Edinburg City Hall Engineering Conference Room or other location as designated by the Owner. Meeting shall generally be held at monthly intervals, or more frequent intervals if directed by Engineer.
- B. Attendance Required: Job superintendent, major Subcontractors and Suppliers, Owner's Representatives, Engineer's Representatives and Resident Project Representative as appropriate to agenda topics for each meeting.

- C. Engineer or his representative will make arrangements for meetings, and recording minutes.
- D. Engineer or his representative will prepare the agenda and preside at meetings.
- E. Contractor shall provide required information and be prepared to discuss each agenda item.
- F. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of Record Documents.
 - 3. Review of Work progress schedule submittal, and pay estimates, payroll and compliance submittals.
 - 4. Field observations, problems, and decisions.
 - 5. Identification of problems which may impede planned progress.
 - 6. Review of submittals schedule and status of submittals.
 - 7. Review of RFI and RFP status.
 - 8. Change order status.
 - 9. Review of off-site fabrication and delivery schedules.
 - 10. Maintenance of progress schedule.
 - 11. Corrective measures to regain projected schedules.
 - 12. Planned progress during succeeding work period.
 - 13. Coordination of projected progress.
 - 14. Maintenance of quality and work standards.
 - 15. Effect of proposed changes on progress schedule and coordination.
 - 16. Other items relating to Work.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

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Section 01321

CONSTRUCTION PHOTOGRAPHS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Photographic requirements for construction photographs and submittals.

1.02 SUBMITTALS

- A. Prints: Furnish 2 sets of 4-inch by 6-inch prints of each view and submit 1 print directly to the Engineer within 7 days of taking photographs. One print shall be retained by the Contractor in the field office at the Project site and available at all times for reference.
- B. Extra Prints: When requested by the Engineer, the Contractor shall submit extra prints of photographs, with distribution directly to designated parties who will pay the costs for the extra prints directly to the photographer.
- C. When required by individual sections, submit photographs taken prior to start of construction to show original site conditions.
- D. When required by Contract Documents, submit photographs with monthly Pay Estimate.
- E. Negatives: With each submittal, include photographic negatives, in protective envelopes, identified by Project name, Contractor, and date photographs were taken.
- F. In lieu of negatives, Contractor may submit electronic files of digital photographs if using a digital camera, but must comply with Parts 1 and 2 of this section.

1.03 QUALITY ASSURANCE

- A. Contractor shall be responsible for the timely execution of the photographs, their vantage point, and quality.
- B. Photographs: Two prints; color, matte finish; 4 x 6 -inch size, mounted on 8-1/2 x 11- inch soft card stock, with left edge binding margin for three hole punch. Digital photos shall not be distorted to fit card stock.

PART 2 PRODUCTS

2.01 PRECONSTRUCTION PHOTOGRAPHS

- A. Prior to the commencement of any construction, take 35 mm or digital color photographs of the site of the project and present two sets of prints to the Engineer for their use in contract administration and inspection. Subject matter of the photographs to be determined by the Engineer.
- B. The photographs shall show on a non-reflective chalkboard readable in the photograph:
 - 1. Job number.
 - 2. Date and time photographs were taken.

- 3. Location and compass direction of the photograph, along with the project number.
 - 4. Date shall be on negative (35mm) or on digital image.
 - 5. Provide notation of vantage point marked for location and direction of shot, on a key plan of the site.
- C. Sufficient number of photographs shall be taken to show the existence or non-existence of cracked paved surfaces and the condition of trees, shrubs, and grass.
- D. Identify each photograph with an applied label or rubber stamp on the back with the following information:
- 1. Name of the Project.
 - 2. Name and address of the photographer (if a professional photographer is used).
 - 3. Name of the Contractor.
 - 4. Date the photograph was taken.
 - 5. Photographs shall be in plastic pockets and bound in three-ring notebook for easy access and viewing.

2.02 PROGRESS PHOTOGRAPHS

- A. Take photographs of subject matter selected by Resident Project Representative at intervals, coinciding with the cutoff date associated with each application for payment. Select the vantage points for each shot each month to best show the status of construction and progress since the last photographs were taken.
- 1. Vantage Points: Follow direction by the Resident Project Representative to select vantage points. During each of the following construction phases take not less than 2 of the required shots from the same vantage point each time to create a time-lapse sequence.
 - 2. Photos shall be submitted according to Paragraphs 1.03 B. and 2.01 B and D.

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01325

CONSTRUCTION SCHEDULE**PART 1 - GENERAL****1.01 GENERAL**

- A. Provide Construction Schedules for the Work included in this Contract in accordance with requirements in this Section. Create Construction Schedule using Critical Path Method (CPM) computer software capable of mathematical analysis of Precedence Diagramming Method (PDM) plan. Provide printed activity listings and bar charts in formats described in this Section.
- B. Combine activity listings and bar charts with narrative report to form Construction Schedule submittal for Engineer.

1.02 SUBMITTALS

- A. Conform to requirements of Section 01330 - Submittal Procedures.
- B. During preconstruction meeting, as described in Section 01312 - Coordination and meetings, provide sample bar charts and activity listings produced from scheduling software proposed. Scheduling software is subject to review by Engineer and must meet requirements provided in this Section. Engineer will provide review of samples within seven days of submittal.
- C. Within 21 days of receipt of approval of Contractor's format, or 30 days of Notice to Proceed, whichever is later, **submit proposed Construction Schedule for review.**
- D. Construction Schedule submittals shall include:
 - 1. Printed bar charts that meet criteria outlined in this Section;
 - 2. Activity listings that meet criteria outlined in this Section and are produced by Contractor's approved scheduling software; and
 - 3. A predecessor/successor listing sorted by Activity ID that meets criteria outlined in this Section and is produced by Contractor's scheduling software.
 - 4. A logic network diagram is required with the first Construction Schedule submittal for facilities projects.
 - 5. Prepare and submit graphic or tabular display of estimated monthly billings (i.e. a cash flow curve for the Work) with the first schedule submittal. This information is not required in monthly updates, unless significant changes in work require re-submittal of schedule for review. Display shall allocate units indicated in bid schedule or Schedule of Values to Construction Schedule activities. Weighted allocations are acceptable, where appropriate. Dollar value associated with each allocated unit will be spread across the duration of that activity on a monthly basis. Total for each month and cumulative total will be indicated. These monthly forecasts are only for Engineer's planning purposes. Monthly payments for actual work completed will be made in accordance with Document 00700 - General Conditions.

6. Narrative Report that provides the information outlined in this Section.
- E. No payment will be made until Engineer approves Construction Schedule and billing forecast.
- F. If Contractor desires to make changes in its method of operating and scheduling, after Engineer has reviewed original schedule, notify Engineer in writing, stating reasons for changes. When Engineer considers these changes to be significant, Contractor may be required to revise and resubmit for review all or affected portion of Contractor's Construction Schedule to show effect on the Work.
- G. Upon written request from Engineer, revise and submit for review all or any part of Construction Schedule submittal to reflect changed conditions in the Work or deviations made from original schedule.
- H. Updated Construction Schedule with actual start and actual finish dates, percent complete, and remaining duration of each activity shall be submitted monthly. Data date used in updating monthly Construction Schedule shall be the same date as used in monthly Payment Application. Monthly update of Construction Schedule is required for monthly Payment Application to be processed for payment.

1.04 SCHEDULING COMPUTER SOFTWARE REQUIREMENTS

- A. Contractor's scheduling software shall be capable of creating bar charts and activity listings, which can be sorted by various fields.
- B. Use scheduling software to provide monthly time in Bar Chart format and scale with 12-month scale not to exceed one page width. Bar charts may be printed or plotted on 8-1/2 by 11-inch, 8-1/2 by 14-inch or 11 by 17-inch sheet sizes. Over-size plots are not acceptable.

1.05 NARRATIVE SCHEDULE REPORT

- A. Narrative schedule report shall list activities started this month, activities completed this month, activities continued this month, activities scheduled to start or complete next month, problems encountered this month, and actions taken to solve these problems.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

Section 01326

CONSTRUCTION SCHEDULE (BAR CHART)**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Prepare and submit to the Engineer an initial Construction Schedule as required by this section for the Work. Do not start construction until the schedule is approved by the Engineer.

1.02 FORM AND CONTENT OF INITIAL CONSTRUCTION SCHEDULE

A. Bar Chart:

1. Show major construction activities such as pipe laying (by traffic control phases or other approved key areas), tunnel construction, pavement removal, pavement replacement, pressure testing, disinfection, clean up and punch out as separate activities on the schedule.
2. Show all work items where new water mains and other new utilities connect to Owner facilities.
3. Show separate activities for each shop drawing and product data submittal that are critical to timely completion. Show submission dates and dates approved submittals will be needed from the Engineer.
4. Provide separate horizontal bar for each activity. List start and finish date for each activity at left side of diagram.
5. Horizontal Time Scale: Identify first work day of each week.
6. Scale and Spacing: Notes must be legible and Contractor must allow space for notations and future revisions.
7. Order of Listings: Order bar chart listings by phases or other approved groups of activities that are contiguous. Activities shall be in chronological order within each phase or group. For example, for each segment of new open cut water main placement, the schedule shall have an activity for layout, traffic control, pavement removal, water main placement and backfill, pavement restoration, traffic control removal, pavement markings restoration and clean up. For each tunnel or auger activity, the schedule shall have an activity for layout, traffic control, shaft construction, tunnel construction or auger activity, pipe placement in tunnel or auger, routing (if required), shaft removal, pavement replacement, pavement marking replacement, traffic control removal, pavement marking restoration and clean up.

B. Narrative Description:

1. Submit narrative description of anticipated work sequence as indicated by sequence of activities presented in the schedule.
2. Narrative shall be of sufficient detail to discuss any activity that affects the public (such as phases of traffic control), interaction with specific Owner forces (such as valve operation, and testing) or other associated prime Contractors.

1.03 PROGRESS REVISIONS

- A. Submit progress revisions monthly as part of Application for Payment or information necessary for Application for Payment. Application for Payment shall not be considered complete or processed for payment until progress revision is submitted. When required, re-submittal for rejected revision must be made, reviewed and approved prior to the following month's pay application being processed. Pay Application for the following month will not be processed until re-submittal is approved and Progress Revision required that month is received.
- B. Provide Narrative Report to describe:
1. Major changes in scope.
 2. Revised projections in progress, and completion, or changes in activity durations.
 3. Other identifiable changes.
 4. Problem areas, anticipated delays, and the impact on schedule.
 5. Corrective action recommended and its effect.
 6. Effect of changes on schedules or other prime contractors.
 7. Material delivery delays.
- C. Additional data to be included with Bar Chart described in Paragraph 1.01 of this section:
1. Original dates shown for each activity in the approved initial progress schedule shall be shown by a narrow bar next to wider bar for current schedule.
 2. Date that each activity actually started or finished if that event has occurred. Actual dates must be clearly identified in two right-most columns in the left portion of 11-inch by 17-inch chart.
 3. Indicate percentage progress of each activity to the date of submission.

1.04 SUBMISSIONS

- A. Submit initial progress schedule within 15 days after award of contract. The Engineer will review the schedule and return the review copy.
- B. Cut-off date for progress revision may be as early as the twentieth of the month so that submittal can be made without delay to processing of Application for Payment. Use same cut-off day for all revisions as used in first approved revision.
- C. When required, resubmit within 7 days after return of review copy.
- D. Schedule shall include connecting lines between bars to indicate sequence that activities will be accomplished such that if activity's start or finish is modified, then impact will be known by the corresponding changes to preceding or succeeding activities identified by the connecting lines.

PART 2 PRODUCTS - Not Used**PART 3 EXECUTION - Not Used****END OF SECTION**

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Section 01330

SUBMITTAL PROCEDURES**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Submittal procedures for:
1. Schedule of Values.
 2. Construction Schedules.
 3. Shop Drawings, Product Data, and Samples
 4. Operations and Maintenance Data.
 5. Manufacturer's Certificates.
 6. Construction Photographs.
 7. Project Record Documents.
 8. Design Mixes.

1.02 SUBMITTAL PROCEDURES

- A. Scheduling and Handling:
1. Schedule submittals well in advance of the need for the material or equipment for construction. Allow time to make delivery of material or equipment after submittal has been approved.
 2. Develop a submittal schedule that allows sufficient time for initial review, correction, resubmission and final review of all submittals. The Engineer will review and return submittals to the Contractor as expeditiously as possible but the amount of time required for review will vary depending on the complexity and quantity of data submitted. In no case will a submittal schedule be acceptable which allows less than 30 days for initial review by the Engineer. This time for review shall in no way be justification for delays or additional compensation to the Contractor. Recognizing that time is of the essence, the Contractor is to stamp the top of each submittal with the words ROUTINE or CRITICAL. Routine submittals shall be processed in accordance with the timeframe set forth previously. Critical submittals are those that: were overlooked by the Contractor, involve complex coordination, or are crucial to the successful completion of a specific portion of the project. For critical submittals:
 - i. Contractor shall indicate on the submittal his realistically estimated date of when a review must be returned;
 - ii. Upon return of critical submittals, Contractor shall date-stamp the transmittal page with date and time received;

- iii. Contractor is cautioned that the use of critical submittals is not a substitute for proper due diligence on his part. Review of critical submittals found to be routine shall be accompanied by an invoice for excess time and material expenditures that were required in order to complete the critical review as compared to a routine review. The Resident Project Representative shall make the determination as to whether a critical submittal was in fact routine.
 3. The Engineer's review of submittals covers only general conformity to the Drawings, Specifications and dimensions which affect the layout. The Contractor is responsible for quantity determination. Quantities may be verified by the Engineer. The Contractor is responsible for any errors, omissions or deviations from the Contract requirements; review of submittals in no way relieves the Contractor from his obligation to furnish required items according to the Drawings and Specifications.
 4. Submit sufficient copies of documents. Unless otherwise specified in the following paragraphs or in the Specifications, provide 6 copies in addition to the number the Contractor requires returned. For portions of the project involving electrical or signal components, provide one additional copy (7 copies in addition to the number the Contractor requires returned).
 5. Revise and resubmit submittals as required. Identify all changes made since previous submittal.
 6. A maximum of three (3) reviews will be conducted on any one submittal. Submittals requiring more than three (3) reviews will be considered inadequate and result in a recovery of review expenses from the Contractor.
 7. The Contractor shall assume the risk for material or equipment which is fabricated or delivered prior to approval. No material or equipment shall be incorporated into the Work or included in periodic progress payments until approval has been obtained in the specified manner.
- B. Transmittal Form and Numbering:
1. Transmit each submittal to the Engineer with a Transmittal Cover.
 2. Sequentially number each transmittal form beginning with the number 1. Re-submittals shall use the original number with an alphabetic suffix (i.e., 2A for first re-submittal of Submittal 2 or 15C for third re-submittal of Submittal 15). Each submittal shall only contain one type of work, material, or equipment. Mixed submittals will not be accepted.
 3. Identify time nature of submittal, either ROUTINE or CRITICAL.
 4. Identify variations from requirements of Contract Documents and identify product or system limitations.
 5. For submittal numbering of video tapes, see paragraph 1.10 Video.
- C. Transmittal Cover:
1. Transmittal Cover, certifying that the items have been reviewed in detail and are correct and in accordance with Contract Documents, except as noted by any requested variance. A stamp may be used to print the information on the Transmittal Cover

except for the Contractor's signature. Regardless of whether the transmittal cover is typed or stamped, the transmittal cover text shall be a minimum of fourteen (14) point.

2. As a minimum, Transmittal Cover information shall include:
 - a. Contractor's name.
 - b. Job number.
 - c. Submittal number.
 - d. Certification statement that the Contractor has reviewed the submittal and it is in compliance with the Contract Documents.
 - e. Signature line for Contractor.
 - f. Submittal type – routine or critical
3. The bottom half of the Transmittal Cover shall be kept blank.

1.03 SCHEDULE OF VALUES

- A. Submit a Schedule of Values in accordance with Section 01292 - Schedule of Values.

1.04 CONSTRUCTION SCHEDULES

- A. Submit Construction Schedules as provided in Project Manual.

1.05 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

- A. Submit shop drawings in accordance with Section 01340 - Shop Drawings, Product Data, and Samples.

1.06 OPERATIONS AND MAINTENANCE DATA

- A. Submit Operations and Maintenance data, as needed.

1.07 MANUFACTURER'S CERTIFICATES

- A. When required in Specification sections, submit manufacturers' certificate of compliance for review by Engineer.
- B. Transmittal Cover, as described in paragraph 1.02C, shall be placed on front page of the certification.
- C. Submit supporting reference data, affidavits, and certifications as appropriate.
- D. Certificates may be recent or previous test results on material or product, but must be acceptable to Engineer.

1.08 CONSTRUCTION PHOTOGRAPHS

- A. Submit Construction Photographs in accordance with Section 01321 - Construction Photographs.

1.09 PROJECT RECORD DOCUMENTS

- A. Submit Project Record Documents in accordance with Section 01785 - Project Record Documents.

1.10 DESIGN MIXES

- A. When specified in Specifications, submit design mixes for review.

- B. Transmittal Cover, as described in paragraph 1.02C, shall be placed on front page of each design mix.
- C. Mark each design mix to identify proportions, gradations, and additives for each class and type of design mix submitted. Include applicable test results on samples for each mix.
- D. Maintain a copy of approved design mixes at mixing plant.

PART 2 PRODUCTS - Not Used**PART 3 EXECUTION**

- A. Submittals made as part of this project will become a vital portion of the project record and will be referenced by the Owner for the useful life of the project. All submittals shall be of high quality. To this end, the following requirements are made:
 - i. As much as possible, all catalog cuts and manufacturer's information shall be original.
 - ii. Copies, when required, shall be clean and entirely legible.
 - iii. Neither facsimiles nor copies of facsimiles are to be included as part of any submittal.
 - iv. Binders, if used, shall be rugged, lock-ring type. Spine of binders shall be clearly labeled with the information outlined in items 1.02 C.2.a. through c.
- B. Reviewed submittals shall be returned to Contractor for distribution to subcontractors and other trades as required. As a minimum, submittals returned to the Contractor will be marked with review comments indicating findings of the review and giving instruction as to necessity of a re-submittal. The Engineer may, at his option, use a stamp for this purpose. Detailed correspondence covering the review may also accompany returned submittals.

END OF SECTION

Section 01340

SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Methods, schedule, and process to be followed for shop drawings, product data, and sample submittals.

1.02 REQUIREMENT

- A. Submit shop drawings, product data and samples as required by the General Conditions and as designated in the Specifications using the procedures specified in Section 01330 – Submittal Procedures and the requirements of this Section.
- B. Shop drawings, product data and samples are not considered Contract Documents.

1.03 SHOP DRAWING/SUBMITTAL SCHEDULE

- A. Submit a separate Shop Drawing/Submittal schedule at the same time the construction schedule is submitted. List products, materials and equipment for which Shop Drawings and other submittals are required in the order in which they appear in the Specifications. Including product data and sample submittals in schedule.

1.04 SHOP DRAWINGS

- A. Submit shop drawings for review as required by the Specifications.
- B. Place Contractor's Transmittal Cover on each drawing as described in Section 01330 – Submittal Procedures.
- C. On the drawings, show accurately and distinctly, the following:
 - 1. Field and erection dimensions clearly identified as such;
 - 2. Arrangement and section views;
 - 3. Relation to adjacent materials or structure, including complete information for making connections between work under this Contract and work under other contracts;
 - 4. Kinds of materials and finishes;
 - 5. Parts list and descriptions;
 - 6. Assembly drawings of equipment components and accessories showing their respective positions and relationships to the complete equipment package;
 - 7. Where necessary for clarity, identify details by reference to the Contract Drawings.
- D. Make drawings to scale providing a true representation of the specific equipment or item to be furnished.

1.05 PRODUCT DATA

- A. Submit product data for review as required in Specification sections.
- B. Place Contractor's Transmittal Cover on each data item submitted, as described in Section 01330 – Submittal Procedures.
- C. Mark each copy to identify applicable products, models, and options to be used in this Project. Supplement manufacturers' standard data to provide information unique to this Project, where required by the Specifications.
- D. For products specified only by reference standard, give manufacturers, trade name, model or catalog designation and applicable reference standard.

1.06 SAMPLES

- A. Submit samples for review as required by the Specifications.
- B. Place Contractor's Transmittal Cover on each sample as described in Section 01330 – Submittal Procedures.
- C. Submit the number of samples specified in Specifications.
- D. Reviewed samples which may be used in the Work are identified in Specifications.

PART 2 PRODUCTS – Not Used**PART 3 EXECUTION – Not Used**

END OF SECTION

SECTION 01410

TPDES REQUIREMENTS

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Documentation to be prepared and signed by Contractor before conducting construction operations, in accordance with the latest Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit Number TXR 150000 (the Construction General Permit).
- B. Implementation, maintenance inspection, and termination of storm water pollution prevention control measures including, but not limited to, erosion and sediment controls, storm water management plans, waste collection and disposal, off-site vehicle tracking, and other appropriate practices shown on the Drawings or specified elsewhere in the contract.
- C. Review of the Storm Water Pollution Prevention Plan (SWP3) implementation with Storm Water Specialist prior to start of construction.

1.02 DEFINITIONS

- A. Commencement of Construction Activities: The exposure of soil resulting from activities such as clearing, grading, and excavating.
- B. Large Construction Activity: Project that:
 - 1. disturbs five acres or more, or
 - 2. disturbs less than five acres but is part of a larger common plan of development that will disturb five acres or more of land.
- C. Small Construction Activity: Project that:
 - 1. disturbs one or more acres but less than five acres, or
 - 2. disturbs less than one acre but is part of a larger common plan of development that will ultimately disturb one or more acres but less than five acres.
- D. TPDES Operator:
 - 1. The person or persons who have day-to-day operational control of the construction activities which are necessary to ensure compliance with the SWP3 for the site or other Construction General Permit conditions.

PART 2 PRODUCTS - Not Used**PART 3 EXECUTION****3.01 SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWP3)**

- A. Prepare a SWP3 following Part III of the Construction General Permit and the City of Edinburg Ordinance Section 2018-4202. If conflicts exist between the Construction General Permit and the City of Edinburg Ordinance, the more stringent requirements will apply.

- B. Update or revise the SWP3 as needed during the construction following Part III, Section E of the Construction General Permit.
- C. Submit the SWP3 and any updates or revisions to Storm Water Specialist for review and address comments prior to commencing, or continuing, construction activities.

3.02 NOTICE OF INTENT for Large and Small Construction Activity

- A. Fill out, sign, and date the latest TCEQ Form 20022 Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity under the TPDES Construction General Permit (TXR 150000).
- B. Transmit the signed Contractor's copy of TCEQ Form 20022, along with a check for the latest adopted rate (or online payment) made out to Texas Commission on Environmental Quality.
- C. Submission of the Notice of Intent form by the Contractor to TCEQ is required a minimum of two days before Commencement of Construction Activities.

3.03 CERTIFICATION REQUIREMENTS

- A. Fill out TPDES Operator's Information form, including Contractor's name, address, and telephone number, and the names of persons or firms responsible for maintenance and inspection of erosion and sediment control measures. Use multiple copies as required to document full information.
- B. Contractor and Subcontractors shall sign and date the Contractor's / Subcontractor's Certification for TPDES Permitting.
- C. Submit properly completed certification forms to Storm Water Specialist for review before beginning construction operations.
- D. Conduct inspections in accordance with TCEQ requirements. Ensure persons or firms responsible for maintenance and inspection of erosion and sediment control measures read, fill out, sign, and date the Erosion Control Contractor's Certification for Inspection and maintenance. Use the latest EPA NPDES Construction Inspection Form; and the latest Owner's Storm Water Pollution Prevention Plan Construction Site Inspection Report.

3.04 RETENTION OF RECORDS

- A. Keep a copy of this document and the SWP3 in a readily accessible location at the construction site from Commencement of Construction Activity until submission of the Notice of Termination (NOT) for Storm Water Discharges Associated with Construction Activity under TPDES Construction General Permit (TXR 150000) to TCEQ. Contractors with day-to-day operational control over SWP3 implementation shall have a copy of the SWP3 available at a central location, on-site, for the use of all operators and those identified as having responsibilities under the SWP3. Upon submission of the NOT, to TCEQ submit a copy of the SWP3 with all revisions to Engineer.

3.05 REQUIRED NOTICES

- A. Post the following notices from effective date of the SWP3 until date of final site stabilization as defined in the Construction General Permit:
 - 1. Post the TPDES permit number for Large Construction Activity, or a signed TCEQ Construction Site Notice for Small Construction Activity. Signed copies of the Owner's and Contractor's NOI must also be posted.
 - 2. Post notices near the main entrance of the construction site in a prominent place for

public viewing. Post name and telephone number of Contractor's local contact person, brief project description and location of the SWP3.

- a. If posting near a main entrance is not feasible due to safety concerns, coordinate posting of notice with Project Manager to conform to requirements of the Construction General Permit.
 - b. If Project is a linear construction project (e.g.: road, utilities, etc.), post notice in a publicly accessible location near active construction. Move notice as necessary.
3. Post a notice to equipment and vehicles operators, instructing them to stop, check, and clean tires of debris and mud before driving onto traffic lanes. Post at each stabilized construction exit area.
 4. Post a notice of waste disposal procedures in a readily visible location on site.

3.06 ON-SITE WASTE MATERIAL STORAGE

- A. On-site waste material storage shall be self-contained and shall satisfy appropriate local, state, and federal rules and regulations.
- B. Prepare list of waste material to be stored on-site. Update list as necessary to include up-to-date information. Keep a copy of updated list with the SWP3.
- C. Prepare description of controls to reduce pollutants generated from on-site storage. Include storage practices necessary to minimize exposure of materials to storm water, and spill prevention and response measures consistent with best management practices. Keep a copy of the description with the SWP3.

3.07 NOTICE OF TERMINATION

- A. Submit a NOT to Project Manager within 30 days after:
 1. Final stabilization has been achieved on all portions of the site that are the responsibility of the Contractor; or
 2. Another operator has assumed control over all areas of the site that have not been stabilized; and
 3. All silt fences and other temporary erosion controls have either been removed, scheduled to be removed as defined in the SWP3, or transferred to a new operator if the new operator has sought permit coverage.
- B. Project Manager will complete Owner's NOT and submit Contractor and Owner's notices to the TCEQ and MS4 entities.

END OF SECTION

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Section 01422

REFERENCE STANDARDS**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Section includes general quality assurance as related to Reference Standards and a list of references.

1.02 QUALITY ASSURANCE

- A. For Products or workmanship specified by association, trade, or Federal Standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on the date of the Contract.
- C. Request clarification from Engineer before proceeding should specified reference standards conflict with Contract Documents.

1.03 SCHEDULE OF REFERENCES

AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, N.W., Suite 249 Washington, DC 20001
ACI	American Concrete Institute 38800 Country Club Dr. Farmington Hills, MI 48331-3439
AGC	Associated General Contractors of America 2300 Wilson Blvd., Suite 300 Arlington, VA 22201
AI	Asphalt Institute 2696 Research Park Drive Lexington, KY 40511-8480
AITC	American Institute of Timber Construction 6980 S.W. Varns Tigard, Or 97223
AISC	American Institute of Steel Construction 130 East Randolph, Suite 2000 Chicago, IL, 60601
AISI	American Iron and Steel Institute 25 Massachusetts Avenue, NW Suite 800 Washington, DC 20001

ASME	American Society of Mechanical Engineers Two Park Avenue New York, NY 10016-5990
ANSI	American National Standards Institute 1899 L Street, NW, 11th Floor Washington, DC 20036
APA	American Plywood Association 7011 S. 19th Street Tacoma, WA 98466-5333
API	American Petroleum Institute 200 Massachusetts Avenue NW Suite 1100 Washington, DC 20001-5571
AREA	American Railway Engineering Association 50 F Street, N.W. Washington, DC 20001
ASTM	American Society for Testing and Materials 100 Barr Harbor Drive P.O. Box C700 West Conshohocken, PA 19428-2959
AWPA	American Wood-Protection Association P.O. Box 361784 Birmingham, AL 35236-1784
AWS	American Welding Society 8669 NW 36 Street, # 130 Miami, Florida 33166-6672
AWWA	American Water Works Association 6666 West Quincy Avenue Denver, CO 80235
CFR	Code of Federal Regulations
CLFMI	Chain Link Fence Manufacturers Institute 10015 Old Columbia Road Suite B215 Columbia, MD 21046
CRSI	Concrete Reinforcing Steel Institute 933 North Plum Grove Road Schaumburg, IL 60173-4758
DIPRA	Ductile Iron Pipe Research Association P.O. BOX 190306 Birmingham, AL 35219
EJMA	Expansion Joint Manufacturers Association 707 Westchester Avenue White Plains, NY 10604

FS	Federal Standardization Documents General Services Administration Specifications Unit (WFSIS) 7th and D Streets, S.W. Washington, DC 20406
ICEA	Insulated Cable Engineer Association P.O. Box 493 Miamitown, OH - 45041
IEEE	Institute of Electrical and Electronics Engineers 445 Hoes Lane P.O. Box 1331 Piscataway, NJ 0855-1331
ISA	International Society of Arboriculture 270 Peachtree Street NW, Suite 1900 Atlanta, Georgia 30303
MIL	Military Specifications General Services Administration Specifications Unit (WFSIS) 7th and D Streets, S.W. Washington, DC 20406
NACE	National Association of Corrosion Engineers 1440 South Creek Drive Houston, TX 77084
NEMA	National Electrical Manufacturers' Association 1850 M Street, NW, Suite 610 Washington, DC 20036
NFPA	National Fire Protection Association 1 Batterymarch Park Quincy, MA 02269-7471
NRMCA	National Ready Mix Concrete Association 900 Spring Street Silver Spring, MD 20910
NSF	National Sanitary Foundation P.O. Box 130140 789 N. Dixboro Road Ann Arbor, MI 48105
OSHA	Occupational Safety Health Administration U.S. Department of Labor 200 Constitution Avenue, NW Room Number N3626 Washington, D.C. 20210
PCA	Portland Cement Association 5420 Old Orchard Road

Skokie, IL 60077-1083

PCI	Prestressed Concrete Institute 200 West Adams St., Suite 2100 Chicago, IL 60606
SDI	Steel Deck Institute P.O. Box 426 Glenshaw, PA 15116
SSPC	Steel Structures Painting Council 800 Trumbull Drive Pittsburgh, PA 15205
TAC	Texas Administrative Code
TxDOT	Texas Department of Transportation 125 East 11th St. Austin, TX 78701
UL	Underwriters' Laboratories, Inc. 333 Pfingsten Road Northbrook, IL 60062
UNI-BELL	UNI-BELL Pipe Association 2711 LBJ Freeway, Suite 1000 Dallas, TX 75234

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

Section 01450

CONTRACTOR'S QUALITY CONTROL

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Quality assurance and control of installation and manufacturer's field services and reports.

1.02 MEASUREMENT AND PAYMENT

- A. No payment will be made for this item. Include the cost of Contractor's quality control in overhead cost for this project.

1.03 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' installation instructions, including each step in sequence.
- C. Request clarification from Engineer before proceeding should manufacturers' instructions conflict with Contract Documents.
- D. Comply with specified standards as minimum requirements for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce the specified level of workmanship.

1.04 REFERENCES

- A. Obtain copies of standards and maintain at job site when required by individual Specification sections.

1.05 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual Specification sections, provide material or product suppliers' or manufacturers' technical representative to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, operator training, test, adjust, and balance of equipment as applicable, and to initiate operation, as required. Conform to minimum time requirements for start-up operations and operator training if defined in Specification sections.
- B. Manufacturer's representative shall report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions. Submit report within 14 days of observation to Resident Project Representative for review.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

Section 01452

INSPECTION SERVICES**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Inspection services and references

1.02 INSPECTION

- A. Engineer and/or Owner will appoint Resident Project Representative as a representative of the Owner to perform inspections, tests, and other services specified in individual specification Sections.
- B. Alternately, Engineer and/or Owner may appoint, employ, and pay an independent firm to provide additional inspection, tests or construction management services as indicated in Section 01454 - Testing Laboratory Services.
- C. Reports will be submitted by the independent firm to Engineer, and Owner, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
- D. Assist and cooperate with the Resident Project Representative; furnish samples of materials, design mix, equipment, tools, and storage.
- E. Notify Resident Project Representative 24 hours prior to expected time for operations requiring services.
- F. Sign and acknowledge observation or testing reports when requested by Resident Project Representative or independent firm.

PART 2 PRODUCTS - Not Used**PART 3 EXECUTION - Not Used****END OF SECTION**

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Section 01454

TESTING LABORATORY SERVICES**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Testing laboratory services and Contractor responsibilities related to those services.

1.02 REFERENCES

- A. ASTM C 1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation.
- B. ASTM D 3666 - Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Bituminous Paving Materials.
- C. ASTM D 3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- D. ASTM E 329 - Specification for Minimum Requirements for Agencies Engaged the Testing and/or Inspection of Materials Used in Construction.

1.03 SELECTION AND PAYMENT

- A. The Owner shall employ and pay for the services of an independent testing laboratory, or laboratories, to perform product and material quality control, perform in-place quality control and verification identified in individual Specification sections.
- B. The Owner, with the assistance of the Engineer, shall have control of testing, sampling, and expenditures.
- C. All tests required by the project plans and specifications shall be included in a schedule of fees.
- D. The Contractor shall coordinate the services of the project's Geotechnical Engineer of Record to conduct observation and testing of the subgrade preparation, and the selection, placement and compaction of select fill material. The foundation excavations for structures shall be observed by the Geotechnical Engineer of Record prior to steel and/or concrete placement to assess that the foundation materials are capable of supporting the design loads and are consistent with the subsurface materials described in the project's Geotechnical Engineering Study.
- E. Employment of a testing laboratory by the Owner shall not relieve Contractor of obligation to perform work in accordance with requirements of Contract Documents.
- F. Remedial work and re-testing costs, resulting from deficiencies in materials and/or workmanship, shall be borne by the Contractor. Re-testing costs shall not be paid for from the allowance for field and laboratory testing.

1.04 QUALIFICATION OF LABORATORY

- A. Meet laboratory requirements of ASTM E 329 and applicable requirements of ASTM C 1077, ASTM D 3666, and ASTM D 3740.
- B. Where a laboratory subcontracts any part of the testing services, such work shall be placed with a laboratory complying with the requirements of this Section.

1.05 LABORATORY REPORTS

- A. The testing laboratory shall provide and distribute copies of laboratory reports to the distribution list provided by the Engineer.
- B. One copy of each laboratory report distributed or emailed to the Contractor shall be kept at the site field office for the duration of the project.
- C. Before close of business on the working day following test completion and review, reports which indicate failing test results shall be transmitted immediately via email from the testing laboratory to the material supplier, Contractor, Engineer and Resident Project Representative.

1.06 LIMITS ON TESTING LABORATORY AUTHORITY

- A. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
- B. Laboratory may not approve or accept any portion of the Work.
- C. Laboratory may not assume any duties of the Contractor.
- D. Laboratory has no authority to stop the Work.

1.07 CONTRACTOR RESPONSIBILITIES

- A. Provide safe access to the Work and to manufacturer's facilities for the Engineer, Resident Project Representative and for testing laboratory personnel.
- B. Provide to the testing laboratory a copy of the construction schedule and a copy of each update to the construction schedule.
- C. Notify the Resident Project Representative and the testing laboratory during normal working hours of the day previous to the expected time for operations requiring inspection and testing services. If the Contractor fails to make timely prior notification, then the Contractor shall not proceed with the operations requiring inspection and testing services.
- D. Notify the Resident Project Representative 24 hours in advance if the Specification requires the presence of the Resident Project Representative or testing laboratory for sampling or testing.
- E. Request and monitor testing as required to provide timely results and to avoid delay to the Work. Provide samples to the laboratory in sufficient time to allow the required test to be performed in accordance with specified test methods before the intended use of the material.
- F. Cooperate with laboratory personnel in collecting samples on site. Provide incidental labor and facilities for safe access to the Work to be tested; to obtain and handle samples at the site or at source of products to be tested; and to facilitate tests and inspections including storage and curing of test samples.

PART 2 PRODUCTS - Not Used**PART 3 EXECUTION****3.01 CONDUCTING TESTING**

- A. Laboratory sampling and testing specified in individual Specification sections shall conform to the latest issues of ASTM standards, TxDOT methods, or other recognized test standards as approved by the Engineer.
- B. The requirements of this section shall also apply to those tests for approval of materials, for mix designs, and for quality control of materials as performed by the testing laboratories employed by the Contractor.

END OF SECTION

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SECTION 01504

TEMPORARY FACILITIES AND CONTROLS**PART 1 - GENERAL****1.01 SECTION INCLUDES**

- A. Temporary facilities and necessary controls for the Project, including utilities, telephone, sanitary facilities, storage sheds and building, safety requirements, first aid equipment, fire protection, security measures, protection of the Work and property, access roads and parking, environmental controls, pest and rodent control and disposal of trash, debris and excavated material.
- B. Facilities and controls specified in this section are considered minimum for the Project. Provide additional facilities and controls for proper execution of the Work and to meet Contractor's responsibilities for protection of persons and property.

1.02 CONTRACTOR'S RESPONSIBILITY

- A. Comply with applicable requirements specified in other sections of the Specifications.
 - 1. Maintain and operate temporary facilities and systems to assure continuous service.
 - 2. Modify and extend systems as the Work progress requires.
 - 3. Completely remove temporary materials and equipment when no longer required.
 - 4. Restore existing facilities used for temporary services to specified or original condition.

PART 2 PRODUCTS - NOT USED**PART 3 EXECUTION****3.01 TEMPORARY UTILITIES**

- A. Obtaining Temporary Service:
 - 1. Make arrangements with utility service companies for temporary services.
 - 2. Abide by rules and regulations of the utility service companies or authorities having jurisdiction.
 - 3. Responsible for utility service costs until Date of Substantial Completion. Included are fuel, power, light, heat, and other utility services necessary for execution, completion, testing, and initial operation of the Work.
- B. Water:
 - 1. Provide water required for and in connection with work to be performed and for specified tests of piping, equipment, devices, or for other use as required for proper completion of the Work.
 - 2. Water to be drawn from public fire hydrants. Obtain transit meter from

Owner. Pay required deposit based on rates established by latest ordinance.

3. Provide and maintain an adequate supply of potable water for domestic consumption by Contractor personnel, Engineer and representatives of the Owner.
- C. Electricity and Lighting:
1. Provide electric power service required for the Work including required testing, lighting, operation of equipment, and other Contractor use.
 2. Electric power service includes temporary power or generators required to maintain plant operations during scheduled shutdowns.
 3. Minimum lighting level shall be 10 foot-candles for open areas; 20-foot-candles for stairs and shops. Provide a minimum of one 300-watt lamp for each 200 square feet of work area.
- D. Temporary Heat and Ventilation:
1. Provide temporary heat necessary for protection or completion of the Work.
 2. Provide temporary heat and ventilation to assure safe working conditions; maintain enclosed areas at a minimum of 50 degrees F.
- E. Telephone:
1. Provide emergency telephone service at Project site for use by Contractor personnel and others performing work or furnishing services at the site.
- F. Sanitary Facilities:
1. Provide and maintain sanitary facilities for persons on the site; comply with regulations of State and local departments of health.
 2. Enforce use of sanitary facilities by construction personnel at site. Enclose sanitary facilities. Pit-type toilets are not permitted. No discharge will be allowed from these facilities. Collect and store sewage and waste so as not to cause nuisance or health problems. Haul sewage and waste off-site and properly dispose in accordance with applicable regulations.
 3. Locate toilets near the Work site and secluded from view insofar as possible. Keep toilets clean and supplied throughout the course of the Work.

3.02 STORAGE SHEDS AND BUILDINGS

- A. Provide adequately ventilated, watertight storage facilities with floor above ground level for Products susceptible to weather damage.
- B. Storage of Products not susceptible to weather damage may be on blocks off the ground.
- C. Store Products in a neat and orderly manner. Place Products to permit easy access for identification, inspection and inventory.
- D. Fill and grade site for temporary structures to provide drainage away from temporary and existing buildings.

3.03 SAFETY REQUIREMENTS

- A. Submit a safety program at the pre-construction meeting and follow the Program. Include documented response to trench safety requirements of Section 01561 - Trench Safety System.
- B. Conduct operations in strict accordance with applicable Federal, State and local safety codes and statutes and with good construction practice. Establish and maintain procedures for safety of all work, personnel and equipment involved in the Work.
- C. Observe and comply with Texas Occupational Safety Act (Art. 5182a, V.C.S.) and with all safety and health standards promulgated by Secretary of Labor under Section 107 of Contract Work Hours and Standards Act, published in 29 CFR Part 1926 and adopted by Secretary of Labor as occupational safety and health standards under Williams-Steiger Occupational Safety and Health Act of 1970, and to other legislation enacted for safety and health of Contractor employees. Safety and health standards apply to Subcontractors and Suppliers as well as to the Contractor.
- D. Observance of and compliance with safety regulations is Contractor's responsibility without reliance or superintendence of or direction by Engineer. Immediately advise Engineer of investigation or inspection by Federal Safety and Health inspectors of Contractor's or Subcontractor's work or place of work on site under the Contract, and after investigation or inspection, advise Engineer of results. Submit one copy of accident reports to Engineer within 10 days of occurrence.
- E. Protect areas occupied by workmen using the best available devices for detection of lethal and combustible gases. Test devices frequently to assure functional capability. Constantly observe infiltration of liquids into the Work area for visual or odor evidence of contamination, and immediately take appropriate steps to seal off entry of contaminated liquids to the Work area.
- F. Implement safety measures, including but not limited to safety personnel, first-aid equipment, ventilating equipment and other safety equipment specified or detailed on Drawings.
- G. Maintain required coordination with City Police and Fire Departments during entire period covered by the Contract.
- H. Include Project safety analysis in safety plan. Itemize major tasks and potential safety hazards. Plan to eliminate hazards or protect workers and public from each hazard.

3.04 FIRST AID EQUIPMENT

- A. Provide a first aid kit throughout the construction period. List telephone numbers for physicians, hospitals, and ambulance services in each first aid kit.
- B. Have at least one person thoroughly trained in first aid and CPR procedures present on the site when work is in progress. Contractor to conform to protocols and requirements for training and protection against "blood borne pathogens".

3.05 FIRE PROTECTION

- A. Conform to specified fire protection and prevention requirements established by Federal, State, or local governmental agencies and as provided in Safety Program.

3.06 SECURITY MEASURES

- A. Protect the Work, materials, equipment, and property from loss, theft, damage, or

vandalism. Protect Owner property used in performance of the Contract.

- B. If existing fencing or barriers are breached or removed for purposes of construction, provide and maintain temporary security fencing equal to existing.

3.07 PROTECTION OF UTILITIES AND PIPELINES

- A. Prevent damage to existing public utilities during construction. Approximate locations of known utilities are shown on Drawings, but all lines may not be shown. Excavate with caution and repair lines damaged by construction operations.
- B. Use the Utility Coordinating Committee Call System which must be called 48 hours in advance. The toll free telephone number is 1-800-344-8377, Texas811.
- C. Before excavating, locate underground utilities by appropriate means including the use of metal detection equipment, and probes, or by excavation or surveys. Repair damage caused by investigative work and by failure to locate or to preserve underground utilities.
- D. Give utility owners a minimum five days' notice before commencing excavation to allow time to locate utilities and make adjustments or relocations when they conflict with the Work. Include cost for temporary relocation of water, wastewater, and storm drainage lines, necessary to accommodate construction, in unit prices for utility construction unless otherwise noted. Bypassing of sanitary waste to storm drainage facilities is not allowed.
- E. Prior to excavation near pipelines, request a representative of the pipeline company to meet with Contractor to locate the pipelines of proposed utility.

3.08 PROTECTION OF THE WORK AND PROPERTY

- A. Preventive Actions
 - 1. Take necessary precautions and actions to prevent damage, injury, or loss to the Work or public and private property, including:
 - a. Storage of apparatus, supplies, and Products in an orderly, safe manner to limit interference with progress of the Work or work of other contractors, utility service companies, or the Owner's operations.
 - b. Suitable storage for Products subject to damage by exposure to weather, theft, breakage, etc.
 - c. Limitation of loading pressures imposed upon portions of the Work.
 - d. Frequent clean up of refuse, scrap materials, and debris from construction operations, necessary to maintain the site in a safe and orderly condition.
 - e. Provision of barricades and guard rails to protect pedestrian and traffic around openings, scaffolding, temporary stairs and ramps, excavations, elevated walkways, and other hazardous areas.
 - 2. Protect public and private property adjacent to the site. Obtain written consent before entering or occupying privately-owned land except on easements provided for construction. Restore property damaged by construction operations to condition equal to or better than that existing before the damage.
- B. Barricades and Warning Systems

1. Where work is performed on or adjacent to roadways, rights-of-ways, or public land, provide barricades, fences, lights, warning signs, danger signals, and other precautionary measures necessary for protection of persons or property and for protection of the Work.
 - a. Erect sufficient barricades to keep vehicles and pedestrians from entering the Work. Paint barricades to be visible at night. From sunset to sunrise, provide at least one light at each barricade.
 - b. Maintain barricades, signs, lights, and provide watchmen until Engineer approves removal. Whenever work creates encroachment onto public roadways, station flagmen to manage traffic flow in accordance with approved traffic control plan.
 - c. Conform to requirements of the latest version of the Texas Manual on Uniform Traffic Control Devices.
- C. Protection of Existing Structures
 1. Underground Facilities:
 - a. Known Underground Facilities are shown on the Drawings but all Facilities may not be shown. Explore sufficiently ahead of trenching and excavation work to locate Underground Facilities in order to prevent damage to them and to prevent interruption of utility services. Restore damage to Underground Facilities to original condition at no additional cost to the Owner.
 - b. If necessary to avoid unanticipated Underground Facilities, Engineer may make changes in location of the Work.
 - c. If permanent relocation of an Underground Facility is required and not provided for in the Contract documents, Engineer will direct Contractor in writing to perform the Work.
 2. Surface Structures include buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks, guard cables, fencing, and other facilities that are visible above the ground level.
 3. Protection of Underground Facilities and Surface Structures:
 - a. Support in place and protect Underground Facilities and Surface Structures located within or adjacent to the limits of the Work from damage. Install supports as required by the owner of the structure. Satisfy Engineer that the owner of the facility or structure has approved methods and procedures before installing structure supports.
 - b. Avoid moving or changing public utility or private corporation property without prior written consent of a responsible official of the facility or structure. Allow representatives of utilities to enter the construction site for maintenance and repair purposes or to make necessary changes.
 - c. Notify utility and pipeline owners and operators of the nature of construction operations and dates when operations will be performed. When construction operations are required in immediate vicinity of existing structures, pipelines, or utilities, give a minimum of five working days advance notice. Probe and flag location of Underground Facilities

prior to commencement of excavation. Keep flags in place until construction operations uncover the facility.

- d. Assume risk for damages and expenses to Underground Facilities and Surface Structures within or adjacent to the Work.
 - e. Employ a structural engineer to ensure protection measures are adequate for the safety and integrity of structures and facilities.
- E. Protection of Installed Products:
- 1. Provide protection of Installed Products to prevent damage from subsequent operations. Remove protection facilities when no longer needed, prior to completion of the Work.
 - 2. Control traffic to prevent damage to Products and surfaces.
 - 3. Provide coverings to protect Products from damage. Cover projections, wall corners, jambs, sills, and exposed sides of openings in areas used for traffic and passage of materials in subsequent work.

3.09 ROADS AND PARKING

- A. Prevent interference with traffic and operations of the Owner on existing roads.
- B. Designate temporary parking areas to accommodate construction and Owner personnel. When site space is not adequate, provide additional off-site parking.
- C. Minimize use by construction traffic on existing streets and driveways.
- D. Do not allow heavy vehicles or construction equipment in existing parking areas.

3.10 ENVIRONMENTAL CONTROLS

- A. Use methods, equipment, and temporary construction necessary for control of environmental conditions at the site and adjacent areas.
- B. Comply with statutes, regulations, and ordinances relating to prevention of environmental pollution and preservation of natural resources including National Environmental Policy Act of 1969, PL 91-190, Executive Order 11514.
- C. Minimize impact to the surrounding environment. Do not use construction procedures that cause unnecessary excavation and filling of terrain, indiscriminate destruction of vegetation, air or stream pollution, or harassment or destruction of wildlife.
- D. Limit disturbed areas to boundaries established by the Contract. Do not pollute on-site streams, sewers, wells, or other water sources.
- E. Do not burn rubbish, debris or waste materials.

3.11 POLLUTION CONTROL

- A. Provide methods, means, and facilities necessary to prevent contamination of soil, water or the atmosphere by discharge of Pollutants from construction operations.
- B. Provide equipment and personnel to perform emergency measures to contain spillage,

and to remove contaminated soils or liquids. Excavate and dispose of contaminated earth off-site in accordance with laws and regulations, and replace with suitable compacted fill and topsoil.

- C. Provide systems necessary for control of Pollutants.
 - 1. Prevent toxic concentrations of chemicals.
 - 2. Prevent harmful dispersal of Pollutants into the environment.
- D. Use equipment that conforms to current Federal, State, and local laws and regulations.

3.12 PEST AND RODENT CONTROL

- A. Provide rodent and pest control as necessary to prevent infestation of construction or storage areas.
- B. Employ methods and use materials that will not adversely affect conditions at site or on adjoining properties.

3.13 NOISE CONTROL

- A. Provide vehicles, equipment, and use construction activities that minimize noise to the greatest degree practicable. Conform to noise levels of Section 4.301 - Noise, City Edinburg Unified Development Code (UDC), and latest OSHA standards. Do not permit noise levels to interfere with the Work or create a nuisance to surrounding areas.
- B. Conduct construction operations during daylight hours except as approved by Engineer.
- C. Select construction equipment that operates with minimum noise and vibration. When directed by Engineer, correct objectionable noise or vibration produced by operation of equipment at no additional cost to the Owner. Sound Power Level (PWL) of equipment shall not exceed 85 dbA (re: 10-12 watts) measured five feet from the equipment, or at a lower level if prescribed by City of Edinburg UDC. Equipment noise requirements are contained in equipment specifications.

3.14 DUST CONTROL

- A. Use water or other methods approved by Engineer to control amount of dust generated by vehicle and equipment operations.

3.15 WATER RUNOFF AND EROSION CONTROL

- A. Comply with requirements of Section 01410 - TPDES Requirements.
- B. Conduct fill, grading and ditching operations and provide adequate methods necessary to control surface water, runoff, subsurface water, and water from excavations and structures in order to prevent damage to the Work, the site, or adjoining properties.
 - 1. Plan and execute construction and earthwork by methods that control surface drainage from cuts and fills, and from borrow and waste disposal areas.
 - 2. Minimize area of bare soil exposed at one time.
 - 3. Provide temporary control measures, such as berms, dikes, and drains.
 - 4. Provide, operate, and maintain equipment and facilities of adequate size to control surface water.

5. Construct fill and waste areas by selective placement of materials to eliminate erosion of surface silts or clays that may erode.
6. Direct water away from excavations, pits, tunnels, and other construction areas to prevent erosion, sedimentation or damage.
7. Maintain existing drainage patterns adjacent to the site by constructing temporary earth berms, sedimentation basins, retaining areas, and temporary ground cover.
8. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to the site or adjoining areas, in conformance with environmental requirements.
9. Inspect earthwork periodically to detect any evidence of erosion. Take corrective measures as required to control erosion.

END OF SECTION

Section 01555

TRAFFIC CONTROL AND REGULATION**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Traffic Control and Regulation

1.02 METHODS OF PAYMENT

- A. No separate payment will be made for traffic control and regulation. Include the cost of traffic control and regulation in unit price for work requiring such control or as determined on Road Improvement Plans.

1.03 REFERENCES

- A. Texas Manual of Uniform Traffic Control Devices (TMUTCD)
- B. Texas Department of Transportation (TxDOT) permit (if applicable)
- C. Railroad company permit(s) (if applicable)

1.04 PERFORMANCE REQUIREMENTS

- A. Provide all necessary signs, barricades, marking, lighting, and other equipment and supplies required to comply with the latest version of TMUTCD (and TxDOT permit, and/or Railroad Company permit, if applicable)
- B. Provide all necessary certified flagmen required to comply with the latest version of TMUTCD (and TxDOT permit, if applicable)

PART 2 PRODUCTS

- A. Equipment and materials must be furnished, installed and operated by an experienced contractor regularly engaged in traffic control system design, installation and operation.
- B. All equipment must be in good repair and operating order.
- C. Sufficient standby equipment and materials shall be kept available to ensure continuous operation, where required.

PART 3 EXECUTION

- A. Provide labor, material, equipment, techniques and methods required to provide safe traffic control and regulation. Monitor effectiveness of the installed system and its effect on adjacent property.
- B. Notify, TxDOT and/or Railroad Company as required by the permit(s) (if applicable).
- C. Provide continuous system operation, including nights, weekends and holidays. Arrange for appropriate backup if electrical power is primary energy source for traffic control system.
- D. Remove system(s) upon completion of construction or when traffic control is no longer required.

END OF SECTION

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Section 01561

TRENCH SAFETY SYSTEM**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Trench safety system for the construction of trench excavations.
- B. Trench safety system for structural excavations which fall under provisions of State and Federal trench safety laws.

1.02 UNIT PRICES

- A. Measurement for trench safety systems used on trench excavations is on a linear foot basis measured along the centerline of the trench, including manholes and other line structures.
- B. Refer to Section 01270 - Measurement and payment for unit price procedures.

1.03 DEFINITIONS

- A. A trench shall be defined as a narrow excavation (in relation to its depth) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet.
- B. The trench safety system requirements will apply to larger open excavations if the erection of structures or other installations limits the space between the excavation slope and the installation to dimensions equivalent of a trench as defined.
- C. Trench Safety Systems include but are not limited to sloping, sheeting, trench boxes or trench shields, sheet piling, cribbing, bracing, shoring, dewatering or diversion of water to provide adequate drainage.

1.04 SUBMITTALS

- A. Submittals shall conform to requirements of Section 01330 - Submittal Procedures.
- B. Submit a safety program specifically for the construction of trench excavation. Design the trench safety program to be in accordance with OSHA 29CFR standards governing the presence and activities of individuals working in and around trench excavations.
- C. Construction and shop drawings containing deviations from OSHA standards or special designs shall be sealed by a licensed Engineer retained and paid by Contractor.
- D. Review of the safety program by the Engineer will only be in regard to compliance with this specification and will not constitute approval by the Engineer nor relieve Contractor of obligations under State and Federal trench safety regulations.

1.05 REGULATORY REQUIREMENTS

- A. Install and maintain trench safety systems in accordance with the detail specifications set out in the provision of Excavations, Trenching, and Shoring, Federal Occupation Safety and Health Administration (OSHA) Standards, 29CFR, Part 1926, as amended. The sections that are

incorporated into these specifications by reference include Sections 1926-650 through 1926-652.

- B. The Contractor is responsible for obtaining a copy of the OSHA standards.
- C. Legislation that has been enacted by the Texas Legislature with regard to Trench Safety Systems, is hereby incorporated, by reference, into these specifications. Refer to Texas Health and Safety Code Chapter 756.

1.06 INDEMNIFICATION

- A. Contractor shall indemnify and hold harmless the Owner and Engineer, their employees and agents, from any and all damages, costs (including, without limitation, legal fees, court costs, and the cost of investigation), judgments or claims by anyone for injury or death of persons resulting from the collapse or failure of trenches constructed under this Contract.
- B. Contractor acknowledges and agrees that this indemnity provision provides indemnity for the Owner and Engineer in case the Owner and Engineer is/are negligent either by act or omission in providing for trench safety, including, but not limited to safety program and design reviews, inspections, failures to issue stop work orders, and the hiring of the Contractor.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install and maintain trench safety systems in accordance with provisions of OSHA 29CFR.
- B. Install specially designed trench safety systems in accordance with the Contractor's Trench Excavation Safety Program for the locations and conditions identified in the program.
- C. A competent person, as identified in the Contractor's Trench Excavation Safety Program, shall verify that trench boxes and other premanufactured systems are certified for the actual installation conditions.

3.02 INSPECTION

- A. Contractor, or Contractor's independently retained consultant, shall make daily inspections of the trench safety systems to ensure that the installed systems and operations meet OSHA 29CFR and other personnel protection regulations requirements.
- B. If evidence of possible cave-ins or slides is apparent, Contractor shall immediately stop work in the trench and move personnel to safe locations until the necessary precautions have been taken by Contractor to safeguard personnel entering the trench.
- C. Maintain a permanent record of daily inspections.

3.03 FIELD QUALITY CONTROL

- A. Contractor shall verify specific applicability of the selected or specially designed trench safety systems to each field condition encountered on the project.

END OF SECTION

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Section 01570

TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Section describes the requirements for the documents to be prepared by the Contractor for the Texas Pollutant Discharge Elimination System program for construction storm water. These documents are to be prepared, reviewed, and submitted to the Texas Commission on Environmental Quality (TCEQ) prior to commencing construction operations.

1.02 UNIT PRICES

- A. No separate payment will be made for work performed under this Section. Include the cost of work performed under this Section in pay items of which this work is a component.

1.03 REFERENCES

- A. Texas Commission on Environmental Quality – TPDES General Permit Number TXR150000 (attached)
- B. Texas Department of Transportation – Storm Water Management Guidelines for Construction Activities

PART 2 PRODUCTS – Not Used**PART 3 EXECUTION****3.01 TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM**

- A. The Contractor shall prepare the necessary forms, Storm Water Pollution Prevention Plan (SWPPP), and comply with the TPDES General Permit Number TXR150000 referenced in item 1.03 A of this specification.
- B. Copies of the Notice of Intent (NOI) with instructions, Notice of Termination (NOT) with instructions, and TPDES General Permit TXR150000 can be found on TCEQ's website for the Contractor's use.
- C. The Contractor must pay any required application fees and water quality fees as outlined in the TPDES General Permit TXR150000.

3.02 PRECONSTRUCTION REVIEW AND SUBMITTALS

- A. The Contractor shall submit to the Resident Project Representative a copy of the NOI prior to commencing construction.

3.03 CONSTRUCTION REQUIREMENTS

- A. The Contractor shall be responsible for preparation of applicable forms, payment of fees, and retaining records as outlined in the TPDES General Permit TXR150000.

END OF SECTION

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Section 01571

STORM WATER POLLUTION PREVENTION PLAN

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Section describes the requirements for the documents to be prepared by the Contractor for the Storm Water Pollution Prevention Plan (SWPPP). These documents are to be prepared and reviewed prior to commencing construction operations.

1.02 UNIT PRICES

- A. No separate payment will be made for work performed under this Section. Include the cost of work performed under this Section in pay items of which this work is a component.

1.03 REFERENCES

- A. Texas Commission on Environmental Quality – TPDES General Permit Number TXR150000
- B. Texas Department of Transportation – Storm Water Management Guidelines for Construction Activities

PART 2 PRODUCTS – Not Used

PART 3 EXECUTION

3.01 STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

- A. The Contractor shall prepare the SWPPP in accordance with the TPDES General Permit Number TXR150000 referenced in item 1.03 A of this specification.
- B. The Contractor shall prepare the SWPPP using structural and nonstructural control measures included in the Plans and Specifications throughout the construction and post construction periods. These control measures shall not be used as a substitute for the permanent pollution control measures unless otherwise directed by the Resident Project Representative in writing. The control measures may include silt fences, straw bales, stabilized construction exits, or other structural or nonstructural storm water pollution controls. Additional information regarding these controls can be found in the Texas Department of Transportation Manual referenced in item 1.03 B of this specification.
- B. The SWPPP shall include at a minimum:
 - 1. A site map showing the areas of soil disturbance, areas not to be disturbed, drainage patterns, approximate slopes anticipated after major grading activities, locations where storm water discharges to surface waters (including wetlands) and/or leaves the project site, locations of structural and nonstructural controls for regulating the discharge of storm water pollutants, locations of waste, borrow, and equipment storage areas, and location where stabilization practices are expected to occur.
 - 2. A description including the nature of the construction activity, a description of the intended sequence of major activities which disturb soils for major portions of the site (grubbing,

excavation, grading, utilities and infrastructure installation), estimates of the total area of the site, and the total area of the site that is to be disturbed

3. A description of the control measures that will be implemented as part of the construction activity to control pollutants in storm water discharges, and the general timing during the construction process that these measures will be implemented.
4. A description of construction and waste materials expected to be stored on site with updates as appropriate. The SWPPP shall also include a description of controls to reduce pollutants from these materials including storage practices to minimize exposure of the materials to storm water, and spill prevention and response.
5. A description of pollutant sources from areas other than the construction site over which the Contractor has control for the project (including but not limited to dedicated asphalt plants, dedicated concrete plants, haul roads, and field offices), and the control measures implemented to reduce pollutants.

3.02 PRECONSTRUCTION REVIEW AND SUBMITTALS

- A. The Contractor shall review implementation of the SWPPP in a meeting with the Engineer, Storm Water Specialist and the Resident Project Representative prior to the start of construction.
- B. The Contractor shall submit to the Storm Water Specialist for acceptance schedules for accomplishment of the storm water pollution control measures in accordance with the SWPPP. Work on the project shall not begin until the schedules for implementation of the controls and methods of operation have been reviewed and accepted in writing by the Storm Water Specialist.

3.03 CONSTRUCTION REQUIREMENTS

- A. The Contractor shall be responsible for implementation, maintenance, and inspection of storm water pollution prevention control measures and other practices shown on the SWPPP, the Plan Drawings, or specified elsewhere in this or other Specifications.
- B. The contractor shall effectively prevent and control erosion and sedimentation on the site at the earliest practicable time as outlined in the approved schedule and SWPPP. Control measures, where applicable, will be implemented prior to the commencement of each construction operation or immediately after the area has been disturbed.

END OF SECTION

Section 01572

SOURCE CONTROLS FOR EROSION AND SEDIMENTATION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Description of erosion and sediment control and other control-related practices, which shall be utilized during construction activities.

1.02 UNIT PRICES

- A. No separate payment will be made for work performed under this Section. Include cost of work performed under this Section in pay items of which this work is a component.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.01 PREPARATION AND INSTALLATION

- A. No clearing and grubbing or rough cutting shall be permitted until erosion and sediment control systems are in place, other than site work specifically directed by the Resident Project Representative and Storm Water Specialist to allow soil testing and surveying.
- B. Equipment and vehicles shall be prohibited by the Contractor from maneuvering on areas outside of dedicated rights-of-way and easements for construction. Damage caused by construction traffic to erosion and sediment control systems shall be repaired immediately by the Contractor.
- C. The Contractor shall be responsible for collecting, storing, hauling, and disposing of spoil, silt, and waste materials as specified in this or other Specifications and in compliance with applicable federal, state, and local rules and regulations.
- D. Contractor shall conduct all construction operations under this Contract in conformance with the erosion control practices described in the SWPPP, Drawings, and this Specification.
- E. The Contractor shall install, maintain, and inspect erosion and sediment control measures and practices as specified in the SWPPP, Drawings, and in this or other Specifications.

3.02 TOPSOIL PLACEMENT FOR EROSION AND SEDIMENT CONTROL SYSTEMS

- A. When topsoil is specified as a component of another Specification, the Contractor shall conduct erosion control practices described in this Specification during topsoil placement operations.
 - 1. When placing topsoil, maintain erosion and sediment control systems, such as swales, grade stabilization structures, berms, dikes, waterways, and sediment basins.
 - 2. Maintain grades which have been previously established on areas to receive topsoil.

3. After the areas to receive topsoil have been brought to grade, and immediately prior to dumping and spreading the topsoil, loosen the subgrade by discing or by scarifying to a depth of at least 2 inches to permit bonding of the topsoil to the subsoil.
4. No sod or seed shall be placed on soil which has been treated with soil sterilants until sufficient time has elapsed to permit dissipation of toxic materials.

3.03 SEDIMENT CONTROL MAINTENANCE

- A. All erosion, sediment, and water pollution controls will be maintained in good working order. A rain gauge provided by the Contractor shall be located on the project site. Within 24 hours of a rainfall event of 0.5 inches or more as measured by the project rain gauge, the Contractor, the Resident Project Representative and Storm Water Specialist shall inspect the entire project to determine the condition of the control measures. Sediment shall be removed and devices repaired as soon as practicable but no later than 7 days after the surrounding ground has dried sufficiently to prevent further damage from equipment operations needed for repairs.
- B. In the event of continuous rainfall over a 24 hour period, or other circumstances that preclude equipment operation in the area, the Contractor shall install additional backup storm water pollution control devices, as determined by the Storm Water Specialist, by other appropriate methods. The Contractor shall remove sediment accumulations and deposit the spoils in an area approved by the Storm Water Specialist as soon as practical and in accordance with the SWPPP. Any corrective action needed for the control measures is to be accomplished in the sequence directed by the Storm Water Specialist; however, areas adjacent to receiving waters shall generally have priority, followed by devices protecting storm sewer inlets.

3.04 DUST CONTROL

- A. Implement dust control methods to control dust creation and movement on construction sites and roads and to prevent airborne sediment from reaching receiving streams or storm water conveyance systems, to reduce on-site and off-site damage, to prevent health hazards, and to improve traffic safety.
- B. Control blowing dust by using one or more of the following methods:
 1. Mulches bound with chemical binders.
 2. Temporary vegetative cover.
 3. Spray-on adhesives on mineral soils when not used by traffic.
 4. Tillage to roughen surface and bring clods to the surface.
 5. Irrigation by water sprinkling.
 6. Barriers using solid board fences, snow fences, burlap fences, crate walls, bales of straw, or similar materials.
- C. Implement dust control methods immediately whenever dust can be observed blowing on the project site.

3.05 KEEPING STREETS CLEAN

- A. Keep streets clean of construction debris and mud carried by construction vehicles and equipment. If necessary to keep the streets clean, install stabilized construction exits at construction, staging, storage, and disposal areas. A vehicle/equipment wash area (stabilized with coarse aggregate) may be installed adjacent to the stabilized construction exit, as needed. Release wash water into a drainage swale or inlet protected by erosion and sediment control measures. Construction exit and wash areas are specified in Section 01575 - Stabilized Construction Exit.
- B. In lieu of or in addition to stabilized construction exits, shovel or sweep the pavement to the extent necessary to keep the street clean. Waterhosing or sweeping of debris and mud off of the street into adjacent areas is not allowed.

3.06 EQUIPMENT MAINTENANCE AND REPAIR

- A. Confine maintenance and repair of construction machinery and equipment to areas specifically designated for that purpose. Locate such areas so that oils, gasoline, grease, solvents, and other potential pollutants cannot be washed directly into receiving streams or storm water conveyance systems. Provide these areas with adequate waste disposal receptacles for liquid as well as solid waste. Clean and inspect maintenance areas daily.
- B. On a construction site where designated equipment maintenance areas are not feasible, take precautions during each individual repair or maintenance operation to prevent potential pollutants from washing into streams or conveyance systems. Provide temporary waste disposal receptacles.

3.07 WASTE COLLECTION AND DISPOSAL

- A. Contractor shall formulate and implement a plan for the collection and disposal of waste materials on the construction site. In plan, designate locations for trash and waste receptacles and establish a collection schedule. Methods for ultimate disposal of waste shall be specified and carried out in accordance with applicable local, state, and federal health and safety regulations. Make special provisions for the collection and disposal of liquid wastes and toxic or hazardous materials.
- B. Keep receptacles and waste collection areas neat and orderly to the extent possible. Waste shall not be allowed to overflow its container or accumulate from day-to-day. Locate trash collection points where they will least likely be affected by concentrated storm water runoff.

3.08 WASHING AREAS

- A. Vehicles such as concrete delivery trucks or dump trucks and other construction equipment shall not be washed at locations where the runoff will flow directly into a watercourse or storm water conveyance system. Designate special areas for washing vehicles. Locate these areas where the wash water will spread out and evaporate or infiltrate directly into the ground, or where the runoff can be collected in a temporary holding or seepage basin. Beneath wash areas construct a gravel or rock base to minimize mud production.

3.09 STORAGE OF CONSTRUCTION MATERIALS AND CHEMICALS

- A. Isolate sites where chemicals, cements, solvents, paints, or other potential water pollutants are stored in areas where they will not cause runoff pollution.
- B. Store toxic chemicals and materials, such as pesticides, paints, and acids in accordance with manufacturers' guidelines. Protect groundwater resources from leaching by placing a plastic mat,

packed clay, tar paper, or other impervious materials on any areas where toxic liquids are to be opened and stored.

3.10 DEMOLITION AREAS

- A. Demolition activities which create large amounts of dust with significant concentrations of heavy metals or other toxic pollutants shall use dust control techniques to limit transport of airborne pollutants. However, water or slurry used to control dust contaminated with heavy metals or toxic pollutants shall be retained on the site and shall not be allowed to run directly into watercourses or storm water conveyance systems. Methods of ultimate disposal of these materials shall be carried out in accordance with applicable local, state, and federal health and safety regulations.

3.11 SANITARY FACILITIES

- A. Provide and maintain sanitary facilities for persons on the job site; comply with the regulations of State and local departments of health.
- B. Enforce the use of sanitary facilities by construction personnel at the job site. Such facilities shall be enclosed. Pit-type toilets will not be permitted. No discharge will be allowed from these facilities. Collect and store sewage and waste so as not to cause a nuisance or health problem; have sewer and waste hauled off-site and properly disposed in accordance with City regulations.
- C. Located toilets near the Work site and secluded from view insofar as possible. Keep toilets clean and supplied throughout the course of the Work.

3.12 PESTICIDES

- A. Use and store pesticides during construction in accordance with manufacturers' guidelines and with local, state, and federal regulations. Avoid overuse of pesticides which could produce contaminated runoff. Take great care to prevent accidental spillage. Never wash pesticide containers in or near flowing streams or storm water conveyance systems.

END OF SECTION

Section 01573

FILTER FABRIC FENCE**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Installation of erosion and sediment control filter fabric fences used during construction and until final development of the site. The purpose of filter fabric fences is to contain pollutants from overland flow. Filter fabric fences are not for use in channelized flow areas.

1.02 UNIT PRICES

- A. No separate payment will be made for Filter Fabric Fence under this section. Include payment in unit price for related sections.

1.03 SUBMITTALS

- A. Manufacturer's catalog sheets and other product data on geotextile fabric.

1.04 REFERENCES

- A. ASTM D3786 - Standard Test Method for Hydraulic Bursting Strength for Knitted Goods and Nonwoven Fabrics
- B. ASTM D4632 - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles

PART 2 PRODUCTS**2.01 FILTER FABRIC**

- A. Provide woven or nonwoven geotextile filter fabric made of either polypropylene, polyethylene, ethylene, or polyamide material.
- B. Geotextile fabric shall have a grab strength of 100 psi in any principal direction (ASTM D-4632), Mullen burst strength exceeding 200 psi (ASTM D-3786), and the equivalent opening size between 50 and 140.
- C. Filter fabric material shall contain ultraviolet inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0 degrees F to 120 degrees F.
- D. Representative Manufacturers: Mirafi, Inc., or equal.

PART 3 EXECUTION**3.01 PREPARATION AND INSTALLATION**

- A. Provide erosion and sediment control systems at the locations shown on the SWPPP. Such systems shall be of the type indicated and shall be constructed in accordance with the requirements shown on the Drawings and specified in this Section.

- B. No clearing and grubbing or rough cutting shall be permitted until erosion and sediment control systems are in place, other than site work specifically directed by the Resident Project Representative and Storm Water Specialist to allow soil testing and surveying.
- C. Maintain existing erosion and sediment control systems located within the project site until acceptance of the project or until directed by the Resident Project Representative and Storm Water Specialist to remove and discard the existing system.
- D. Regularly inspect and repair or replace damaged components of filter fabric fences as specified in this Section. Unless otherwise directed, maintain the erosion and sediment control systems until the project area stabilization is accepted by the City. Remove erosion and sediment control systems promptly when directed by the Resident Project Representative and Storm Water Specialist. Discard removed materials off site.
- E. Remove sediment deposits and dispose of them at the designated spoil site for the project. If a project spoil site is not designated on the Drawings, dispose of sediment off site at a location not in or adjacent to a stream or floodplain. Off-site disposal is the responsibility of the Contractor. Sediment to be placed at the project site should be spread evenly throughout the site, compacted and stabilized. Sediment shall not be allowed to flush into a stream or drainage way. If sediment has been contaminated, it shall be disposed of in accordance with existing federal, state, and local rules and regulations.
- F. Equipment and vehicles shall be prohibited by the Contractor from maneuvering on areas outside of dedicated rights-of-way and easements for construction. Damage caused by construction traffic to erosion and sediment control systems shall be repaired immediately.
- G. Conduct all construction operations under this Contract in conformance with the erosion control practices described in Section 01572- Source Controls for Erosion and Sedimentation.

3.02 CONSTRUCTION METHODS

- A. Provide filter fabric fence systems in accordance with the City of Edinburg Standards Manual. Filter fabric fences shall be installed in such a manner that surface runoff will percolate through the system in sheet flow fashion and allow sediment to be retained and accumulated.
- B. Attach the filter fabric to steel posts spaced 6 to 8 feet and embedded a minimum of 18 inches. Steel posts shall have a minimum length of 4 feet. If filter fabric is factory preassembled with support netting, then maximum spacing allowable is 8 feet. Install stakes at a slight angle toward the source of anticipated runoff.
- C. Trench in the toe of the filter fabric fence with a spade or mechanical trencher so that the downward face of the trench is flat and perpendicular to the direction of flow. The v-trench configuration as shown on the Drawings may also be used. Lay filter fabric along the edges of the trench. Backfill and compact trench.
- D. Filter fabric fence shall have a minimum height of 18 inches and a maximum height of 36 inches above natural ground.
- E. Provide the filter fabric in continuous rolls and cut to the length of the fence to minimize the use of joints. When joints are necessary, splice the fabric together only at a support post with a minimum 6-inch overlap and seal securely.
- F. Inspect sediment filter barrier systems after each rainfall, daily during periods of prolonged rainfall, and at a minimum once each week. Repair or replace damaged sections immediately. Remove

sediment deposits when silt reaches a depth one-third the height of the fence or 6 inches, whichever is less.

END OF SECTION

Section 01575

STABILIZED CONSTRUCTION EXIT**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Installation of erosion and sediment control for stabilized construction exits used during construction and until final development of the site.

1.02 SUBMITTALS

- A. Manufacturer's catalog sheets and other product data on geotextile fabric.
- B. Sieve analysis of aggregates conforming to requirements of this Specification.

1.03 UNIT PRICES

- A. No separate payment will be made for work performed under this Section. Include cost of work performed under this Section in pay items for which this work is a component.

1.04 REFERENCES

- A. ASTM D 4632 - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.

PART 2 PRODUCTS**2.01 GEOTEXTILE FABRIC**

- A. Provide woven or nonwoven geotextile fabric made of either polypropylene, polyethylene, ethylene, or polyamide material.
- B. Geotextile fabric shall have a minimum grab strength of 270 psi in any principal direction (ASTM D-4632), and the equivalent opening size between 50 and 140.
- C. Both the geotextile and threads shall be resistant to chemical attack, mildew, and rot and shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable life at a temperature range of 0°F to 120°F.
- D. Representative Manufacturers: Mirafi, Inc., or equal.

2.02 COARSE AGGREGATES

- A. Coarse aggregate shall consist of crushed stone, gravel, crushed blast furnace slag, or a combination of these materials. Aggregate shall be composed of clean, hard, durable materials free from adherent coatings, salt, alkali, dirt, clay, loam, shale, soft or flaky materials, or organic and injurious matter.

- B. Coarse aggregates shall conform to the following gradation requirements.

Sieve Size (Square Mesh)	Percent Retained (By Weight)
2-1/2"	0
2"	0 - 20
1-1/2"	15 - 50
3/4"	60 - 80
No. 4	95 - 100

PART 3 EXECUTION

3.01 PREPARATION AND INSTALLATION

- A. If necessary to keep the street clean of mud carried by construction vehicles and equipment, Contractor shall provide stabilized construction roads and exits at the construction, staging, parking, storage, and disposal areas. Such erosion and sediment controls shall be constructed in accordance with the details shown on the Drawings and specified in this Section.
- B. No clearing and grubbing or rough cutting shall be permitted until erosion and sediment control systems are in place, other than as specifically directed by the Resident Project Representative and Storm Water Specialist to allow soil testing and surveying.
- C. Maintain existing erosion and sediment control systems located within the project site until acceptance of the project or until directed by the Resident Project Representative and Storm Water Specialist to remove and discard the existing system.
- D. Regularly inspect and repair or replace components of stabilized construction exits. Unless otherwise directed, maintain the stabilized construction roads and exits until the project is accepted by the City. Remove stabilized construction roads and exits promptly when directed by the Resident Project Representative and Storm Water Specialist. Discard removed materials off site.
- E. Equipment and vehicles shall be prohibited by the Contractor from maneuvering on areas outside of dedicated rights-of-way and easements for construction. Damage caused by construction traffic to erosion and sediment control systems shall be repaired immediately.
- F. Conduct all construction operation under this Contract in conformance with the erosion control practices described in the Specification 01572 - Source Controls for Erosion and Sedimentation.

3.02 CONSTRUCTION METHODS

- A. Provide stabilized construction exits, and truck washing areas when approved by Storm Water Specialist, of the sizes and locations where shown on SWPPP or as specified in this Section.
- B. Vehicles leaving construction areas shall have their tires cleaned to remove sediment prior to entrance onto public right-of-way. When washing is needed to remove sediment, Contractor shall construct a truck washing area. Truck washing shall be done on stabilized areas which drain into a drainage system protected by erosion and sediment control measures.
- C. Details for stabilized construction exit shall be shown on the SWPPP. Construction of all other stabilized areas shall be to the same requirements. Roadway width shall be at least 14 feet for one-way traffic and 20 feet for two-way traffic and shall be sufficient for all ingress and egress. Furnish and place geotextile fabric as a permeable separator to prevent mixing of coarse aggregate with



- underlying soil. Exposure of geotextile fabric to the elements between laydown and cover shall be a maximum of 14 days to minimize damage potential.
- D. Roads and parking areas shall be graded to provide sufficient drainage away from stabilized areas. Use sandbags, gravel, boards, or similar methods to prevent sediment from entering public right-of-way, receiving stream or storm water conveyance system.
 - E. The stabilized areas shall be inspected and maintained daily. Provide periodic top dressing with additional coarse aggregates to maintain the required depth. Repair and clean out damaged control measures used to trap sediment. All sediment spilled, dropped, washed, or tracked onto public right-of-way shall be removed immediately.
 - F. The length of the stabilized area shall be as shown on the SWPPP, but not less than 50 feet. The thickness shall not be less than 8 inches. The width shall not be less than the full width of all points of ingress or egress.
 - G. Stabilization for other areas shall have the same coarse aggregate, thickness, and width requirements as the stabilized construction exit, except where shown otherwise on the SWPPP.
 - H. Stabilized area may be widened or lengthened to accommodate truck washing area when authorized by Storm Water Specialist.
 - I. Alternative methods of construction may be utilized when shown on SWPPP, or when approved by the Storm Water Specialist. These methods include the following:
 - 1. Cement-Stabilized Soil - Compacted cement-stabilized soil or other fill material in an application thickness of at least 8 inches.
 - 2. Wood Mats/Mud Mats - Oak or other hardwood timbers placed edge-to-edge and across support wooden beams which are placed on top of existing soil in an application thickness of at least 6 inches.
 - 3. Steel Mats - Perforated mats placed across perpendicular support members.

END OF SECTION

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Section 01576

WASTE MATERIAL DISPOSAL**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Disposal of waste material and salvageable material.

1.02 UNIT PRICES

- A. No separate payment will be made for waste material disposal under this Section. Include payment in unit price for related sections.

1.03 SUBMITTALS

- A. Submittals shall conform to requirements of Section 01330 - Submittal Procedures.
- B. Obtain and submit disposal permits for proposed disposal sites if required by local ordinances.
- C. Submit a copy of written permission from property owner, along with description of property, prior to disposal of excess material adjacent to the Project. Submit a written and signed release from property owner upon completion of disposal work.

PART 2 PRODUCTS - Not Used**PART 3 EXECUTION****3.01 SALVAGEABLE MATERIAL**

- A. Excavated Material: When indicated on Drawings, load, haul, and deposit excavated material at a location or locations shown on Drawings outside the limits of Project.
- B. Other Salvageable Materials: Conform to requirements of individual Specification Sections.

3.02 EXCESS MATERIAL

- A. Vegetation, rubble, broken concrete, debris, asphaltic concrete pavement, excess soil, and other materials not designated for salvage, shall become the property of Contractor and shall be removed from the job site and legally disposed of.
- B. Excess soil may be deposited on private property adjacent to the Project when written permission is obtained from property owner. See Paragraph 1.03 C above.
- C. Waste materials shall be removed from the site on a daily basis, such that the site is maintained in a neat and orderly condition.

END OF SECTION

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Section 01578

CONTROL OF GROUND WATER AND SURFACE WATER

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Dewatering, depressurizing, draining, and maintaining trenches, shaft excavations, structural excavations, and foundation beds in a stable condition, and controlling ground water conditions for tunnel excavations.
- B. Protecting work against surface runoff and rising flood waters.
- C. Disposing of removed water.

1.02 METHOD OF PAYMENT

- A. No separate payment will be made for control of ground water and surface water. Include the cost to control ground water and surface water in unit price for work in related sections.

1.03 REFERENCES

- A. ASTM D 698 - Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5-lb (2.49 kg) Rammer and 12-inch (304.8 mm) Drop.
- B. Federal Regulations, 29 CFR Part 1926, Standards-Excavation, Occupational Safety and Health Administration (OSHA).
- C. Federal Register 40 CFR (Vol. 55, No. 222) Part 122, EPA Administered Permit Programs (NPDES), Para.122.26(b)(14) Storm Water Discharge.
- D. Texas Commission of Environmental Quality, TCEQ General Permit Number TX150000 Relating to Discharges from Construction Activities.

1.04 DEFINITIONS

- A. Ground water control includes both dewatering and depressurization of water-bearing soil layers.
 - 1. Dewatering includes lowering the water table and intercepting seepage which would otherwise emerge from slopes or bottoms of excavations, or into tunnels and shafts, and disposing of removed water. The intent of dewatering is to increase stability of tunnel excavations and excavated slopes; prevent dislocation of material from slopes or bottoms of excavations; reduce lateral loads on sheeting and bracing; improve excavating and hauling characteristics of excavated material; prevent failure or heaving of the bottom of excavations; and to provide suitable conditions for placement of backfill materials and construction of structures and other installations.
 - 2. Depressurization includes reduction in piezometric pressure within strata not controlled by dewatering alone, as required to prevent failure or heaving of excavation bottom or instability of tunnel excavations.

- B. Excavation drainage includes keeping excavations free of surface and seepage water.
- C. Surface drainage includes use of temporary drainage ditches and dikes and installation of temporary culverts and sump pumps with discharge lines as required to protect the Work from any source of surface water.
- D. Equipment and instrumentation for monitoring and control of the ground water control system includes piezometers and monitoring wells, and devices, such as flow meters, for observing and recording flow rates.

1.05 PERFORMANCE REQUIREMENTS

- A. Conduct surface and subsurface investigations to identify ground water and surface water conditions and to provide parameters for design, installation, and operation of control systems.
- B. Design a ground water control system, compatible with requirements of Federal Regulations 29 CFR Part 1926 and Section 01561 - Trench Safety Systems, to produce the following results:
 - 1. Effectively reduce the hydrostatic pressure affecting:
 - a. Excavations.
 - b. Tunnel excavation, face stability or seepage into tunnels.
 - 2. Develop a substantially dry and stable subgrade for subsequent construction operations.
 - 3. Preclude damage to adjacent properties, buildings, structures, utilities, installed facilities, and other work.
 - 4. Prevent the loss of fines, seepage, boils, quick condition, or softening of the foundation strata.
 - 5. Maintain stability of sides and bottom of excavations.
- C. Provide ground water control systems that may include single-stage or multiple-stage well point systems, eductor and ejector-type systems, deep wells, or combinations of these equipment types.
- D. Provide drainage of seepage water and surface water, as well as water from any other source entering the excavation. Excavation drainage may include placement of drainage materials, such as crushed stone and filter fabric, together with sump pumping.
- E. Provide ditches, berms, pumps and other methods necessary to divert and drain surface water from excavation and other work areas.
- F. Locate ground water control and drainage systems so as not to interfere with utilities, construction operations, adjacent properties, or adjacent water wells.
- G. Assume sole responsibility for ground water and surface water control systems and for any loss or damage resulting from partial or complete failure of protective measures and any settlement or resultant damage caused by the control operations. Modify control systems or operations if they cause or threaten to cause damage to new construction, existing site improvements, adjacent property, or adjacent water wells, or affect potentially contaminated areas. Repair damage caused by control systems or resulting from failure of the system to protect property as required.

1.06 SUBMITTALS

- A. Submittals shall conform to requirements of Section 01330 - Submittals.
- B. Submit a Ground Water and Surface Water Control Plan for review by the Engineer prior to start of any field work. Submit a plan to include the following:
 - 1. Results of subsurface investigation and description of the extent and characteristics of water bearing layers subject to ground water control.
 - 2. Excavation drainage methods including typical drainage layers, sump pump application and other necessary means.
 - 3. Surface water control and drainage installations.
 - 4. Proposed methods and locations for disposing of removed water.

1.07 ENVIRONMENTAL REQUIREMENTS

- A. Comply with requirements of agencies having jurisdiction.
- B. Obtain permit from TCEQ under the Texas Pollutant Discharge Elimination System (TPDES), for storm water discharge from construction sites. Refer to Section 01570 – Texas Pollutant Discharge Elimination System. (If Applicable)
- C. Monitor ground water discharge for contamination while performing pumping in the vicinity of potentially contaminated sites.

PART 2 PRODUCTS

2.01 EQUIPMENT AND MATERIALS

- A. Equipment and materials are at the option of Contractor as necessary to achieve desired results for control of ground and surface water.
- B. Eductors, well points, or deep wells, where used, must be furnished, installed and operated by an experienced contractor regularly engaged in ground water control system design, installation, and operation.
- C. All equipment must be in good repair and operating order.
- D. Sufficient standby equipment and materials shall be kept available to ensure continuous operation, where required.

PART 3 EXECUTION

3.01 GROUND WATER CONTROL

- A. Provide labor, material, equipment, techniques and methods to lower, control and manage ground water in a manner compatible with construction methods and site conditions. Monitor effectiveness of the installed system and its effect on adjacent property.

- B. Install, operate, and maintain ground water control systems in accordance with the Ground Water and Surface Water Control Plan. Notify Engineer in writing of any changes made to accommodate field conditions and changes to the Work. Provide revised drawings and calculations with such notification.
- C. Provide for continuous system operation, including nights, weekends, and holidays. Arrange for appropriate backup if electrical power is primary energy source for dewatering system.
- D. Remove system upon completion of construction or when dewatering and control of surface or ground water is no longer required.
- E. Compact backfill to not less than 95 percent of the maximum dry density in accordance with ASTM D 698.

3.02 EXCAVATION DRAINAGE

- A. Contractor may use excavation drainage methods if necessary to achieve well drained conditions. The excavation drainage may consist of a layer of crushed stone and filter fabric, and sump pumping in combination with sufficient wells for ground water control to maintain stable excavation and backfill conditions.

3.03 SURFACE WATER CONTROL

- A. Intercept surface water and divert it away from excavations through use of dikes, ditches, curb walls, pipes, sumps or other approved means. The requirement includes temporary works required to protect adjoining properties from surface drainage caused by construction operations.
- B. Divert surface water and seepage water into sumps and pump it into drainage channels or storm drains, when approved by agencies having jurisdiction. Provide settling basins when required by such agencies.

END OF SECTION

Section 01610

BASIC PRODUCT REQUIREMENTS**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Requirements for transportation, delivery, handling, and storage of materials and equipment.

1.02 PRODUCTS

- A. Products: Means material, equipment, or systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components designated for reuse.
- B. Do not reuse materials and equipment, designated to be removed, except as specified by the Contract Documents.
- C. Provide equipment and components from the fewest number of manufacturers as is practical, in order to simplify spare parts inventory and to allow for maximum interchangeability of components. For multiple components of the same size, type or application, use the same make and model of component throughout the project.

1.03 TRANSPORTATION

- A. Make arrangements for transportation, delivery, and handling of equipment and materials required for timely completion of the Work.
- B. Transport and handle products in accordance with instructions.
- C. Consign and address shipping documents to the proper party giving name of Project and street address. Shipments shall be delivered to the Contractor.

1.04 DELIVERY

- A. Arrange deliveries of products to accommodate the short term site completion schedules and in ample time to facilitate inspection prior to installation. Avoid deliveries that cause unnecessarily lengthy use of limited storage space.
- B. Coordinate deliveries to avoid conflict with Work and conditions at the site and to accommodate the following:
 - 1. Work of other contractors or the Owner.
 - 2. Limitations of storage space.
 - 3. Availability of equipment and personnel for handling products.
 - 4. Owner's use of premises.
- C. Have products delivered to the site in manufacturer's original, unopened, labeled containers.

- D. Immediately upon delivery, inspect shipment to assure:
 - 1. Product complies with requirements of Contract Documents.
 - 2. Quantities are correct.
 - 3. Containers and packages are intact; labels are legible.
 - 4. Products are properly protected and undamaged.

1.05 PRODUCT HANDLING

- A. Coordinate the off-loading of materials and equipment delivered to the job site. If necessary to move stored materials and equipment during construction, Contractor shall relocate materials and equipment at no additional cost to the Owner.
- B. Provide equipment and personnel necessary to handle products, including those provided by the Owner, by methods to prevent damage to products or packaging.
- C. Provide additional protection during handling as necessary to prevent breaking, scraping, marring, or otherwise damaging products or surrounding areas.
- D. Handle products by methods to prevent over bending or overstressing.
- E. Lift heavy components only at designated lifting points.
- F. Handle materials and equipment in accordance with Manufacturer's recommendations.
- G. Do not drop, roll, or skid products off delivery vehicles. Hand carry or use suitable materials handling equipment.

1.06 STORAGE OF MATERIAL

- A. Store and protect materials in accordance with manufacturer's recommendations and requirements of these Specifications.
- B. Make necessary provisions for safe storage of materials and equipment. Place loose soil materials, and materials to be incorporated into the Work to prevent damage to any part of the Work or existing facilities and to maintain free access at all times to all parts of the Work and to utility service company installations in the vicinity of the Work. Keep materials and equipment neatly and compactly stored in locations that will cause a minimum of inconvenience to other contractors, public travel, adjoining owners, tenants, and occupants. Arrange storage in a manner to provide easy access for inspection.
- C. Restrict storage to areas available on the construction site for storage of material and equipment as shown on Drawings or approved by the Resident Project Representative.
- D. Provide off-site storage and protection when on-site storage is not adequate.
- E. Do not use lawns, grass plots, or other private property for storage purposes without written permission of the owner and other person in possession or control of such premises.
- F. Protect stored materials and equipment against loss or damage.

- G. Store in manufacturers' unopened containers.
- H. Materials delivered and stored along the line of the Work shall be neatly, safely, and compactly stacked along the work site in such manner as to cause the least inconvenience and damage to property owners and the general public, and shall be not closer than 3 feet to any fire hydrant. Public and private drives and street crossings shall be kept open.
- I. Damage to lawns, sidewalks, streets or other improvements shall be repaired or replaced to the satisfaction of the Resident Project Representative. The total length which materials may be distributed along the route of construction at any one time is 1000 lineal feet, unless otherwise approved in writing by the Resident Project Representative.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

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Section 01630

PRODUCT SUBSTITUTION PROCEDURES**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Options for making product or process selections.
- B. Procedures for proposing equivalent construction products or processes.

1.02 DEFINITIONS

- A. Product: Means materials, equipment, or systems incorporated into the Project. Product does not include machinery and equipment used for production, fabrication, conveying, and erection of the Work. Products may also include existing materials or components designated for reuse.
- B. Process: Any proprietary system or method for installing system components resulting in an integral, functioning part of the Work. For this Section, the word Product includes Processes.

1.03 SELECTION OPTIONS

- A. Approved Products: Construction products or processes of certain manufacturers or suppliers designated in the Specifications followed by the words "or approved equal." Approval of alternate products or processes not listed in the Specifications may be obtained through provisions for product options and substitutions in Document 00700 - General Conditions, and by following the submittal procedures specified in 01330- Submittal Procedures.
- B. Product Compatibility: To the maximum extent possible, provide products that are of the same type or function from a single manufacturer, make, or source. Where more than one choice is available as a Contractor's option, select a product which is compatible with other products already selected, specified, or in use by the Owner.

1.04 CONTRACTOR'S RESPONSIBILITY

- A. The Contractor's responsibility related to product options and substitutions is defined in Document 00700 - General Conditions.
- B. Furnish information the Engineer deems necessary to judge equivalency of the alternate product.
- C. Pay for laboratory testing, as well as any other review or examination costs, needed to establish the equivalency between products in order to obtain information upon which the Engineer can base a decision.
- D. If the Engineer determines that an alternate product is not equal to that named in the Specifications, the Contractor shall furnish the specified products.

1.05 ENGINEER'S REVIEW

- A. Alternate products or processes may be used only if approved in writing by the Engineer. The Engineer's determination regarding acceptance of a proposed alternate product is final.

- B. Alternate products will be accepted if the product is judged by the Engineer to be equivalent to the specified product or to offer substantial benefit to the Owner.
- C. The Owner retains the right to accept any product or process deemed advantageous to the Owner, and similarly, to reject any product or process deemed not beneficial to the Owner.

1.06 SUBSTITUTION PROCEDURE

- A. Collect and assemble technical information applicable to the proposed product to aid in determining equivalency as related to the approved product specified.
- B. Submit a written request for a construction product to be considered as an alternate product.
- C. Submit the product information after the effective date of the Agreement.
- D. Submit 5 copies of each request for alternate product approval. Include the following information:
 - 1. Complete data substantiating compliance of proposed substitution with Contract Documents.
 - 2. For products:
 - a. Product identification, including manufacturer's name and address.
 - b. Manufacturer's literature with product description, performance and test data, and reference standards.
 - c. Samples, as applicable.
 - d. Name and address of similar projects on which product was used and date of installation. Include the name of the Owner, Architect/Engineer, and installing contractor.
 - 3. For construction methods:
 - a. Detailed description of proposed method.
 - b. Drawings illustrating methods.
 - 4. Itemized comparison of proposed substitution with product or method specified.
 - 5. Data relating to changes in construction schedule.
 - 6. Relation to separate contracts, if any.
 - 7. Accurate cost data on proposed substitution in comparison with product or method specified.
 - 8. Other information requested by the Engineer.
- E. Approved alternate products will be subject to the same review process as the specified product would have been for shop drawings, product data, and samples.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

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SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Maintain at the site for the Owner one record copy of:
 - 1. Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change Orders and other Modifications to the Contract
 - 5. Engineer Field Orders or written instructions
 - 6. Approved Shop Drawings, Product Data and Samples
 - 7. Approved Operation and Maintenance Data
 - 8. Field Test records
 - 9. Receipts for delivery of items to Owner
- B. Delegate the responsibility for maintenance of record documents to one person on the Contractor's staff as approved in advance by the Engineer.
- C. Thoroughly coordinate all changes within the record documents, making adequate and proper entries on each page of the specifications and each sheet of drawings and other documents where such entry is required to properly show the change. Accuracy of records shall be such that future search for items shown in the contract documents may reasonably rely on information obtained from the approved record documents.
- D. Make all entries within 24 hours after receipt of information. One (1) set is to be maintained at the Contractor's job trailer at all times. As-builts are to be updated as a condition of each pay application

1.02 RELATED REQUIREMENTS

- A. Section 01300: Submittals
- B. Section 01700: Contract Closeout

1.03 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. File documents and samples in accordance with specification format.
- B. Maintain documents in a clean, dry legible condition and in good order. Do not use record documents for construction purposes.
- C. Make documents and samples available at all times for inspection by Engineer and Owner.

1.04 RECORDING

- A. Label each document "PROJECT RECORD" in neat large printed letters.

- B. Record information concurrently with construction progress.
 - 1. Do not conceal any work until required information is recorded.
- C. Drawings; Legible mark to record actual construction:
 - 1. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements..
 - 2. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
 - 3. Field changes of dimension and detail.
 - 4. Changes made by Field Order or by Change Order.
 - 5. Details not on original contract drawings.
 - 6. For gravity sewer lines: Elevation and alignment of line, location of cleanouts, distance between cleanouts, and location of each service line referenced by distance from main trunk line and distance from sewer centerline to end of service line.
- D. Use all means necessary to maintain the job set of record documents completely protected from deterioration and from loss and damage until completion of the Work and transfer of the recorded data to the final record documents. In the event of loss of recorded data, use all means necessary to secure the data to the Engineer's approval; such means shall include, if necessary in the opinion of the Engineer, removal and replacement of concealing materials and, in such case, all replacements shall be to the standards originally specified in the contract documents.
- E. Specifications and Addenda; Legibly mark each Section to record:
 - 1. Manufacturer, trade name, catalog number, and Supplier of each Product and item of equipment actually installed.
- G. Clearly describe all change orders by note and by graphic line, as required. Date all entries. Call attention to the entry by highlighting around the area or areas affected. In the event of overlapping changes, different colors may be used for each of the changes.

1.05 SUBMITTAL

- A. At Contract close-out, deliver Record Documents to Engineer for the Owner.
- B. Accompany submittal with transmittal letter in duplicate, containing:
 - 1. Date
 - 2. Project title and number
 - 3. Contractor's name and address
 - 4. Title and number of each Record Document
 - 5. Signature of Contractor or his authorized representative.

1.06 PAYMENT

- A. Project record documents are incidental to Work for which no separate payment will be made.
- B. No payment will be made to the Contractor for any portion of the work for which the project record documents including recording are not complete.

END OF SECTION

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Section 01725

FIELD SURVEYING**PART 1 GENERAL****1.01 QUALITY CONTROL**

- A. Conform to State of Texas laws for surveys requiring licensed surveyors.

1.02 UNIT PRICES

- A. Payment will be made for Field Surveying at a lump sum unit.

1.03 SUBMITTALS

- A. Submit to Engineer the name, address, and telephone number of Surveyor before starting survey work.
- B. Submit documentation verifying accuracy of survey work on request.
- C. Submit certificate signed by surveyor, that the elevations and locations of the Work are in conformance with Contract Documents.
- D. Submit information under provisions of Section 01330 - Submittal Procedures.

1.04 PROJECT RECORD DOCUMENTS

- A. Maintain a complete and accurate log of control and survey work as it progresses.
- B. Prepare a certified survey setting forth dimensions, locations, angles, and elevations of construction and site Work upon completion of foundation walls and major site improvements.
- C. Submit Record Documents under provisions of Section 01785 - Project Record Documents.

1.05 EXAMINATION

- A. Verify locations of survey control points prior to starting Work.
- B. Notify Engineer immediately of any discrepancies discovered.

1.06 SURVEY REFERENCE POINTS

- A. Control datum for survey is that established by Owner-provided survey as indicated on Drawings.
- B. Locate and protect survey control points prior to starting site work; preserve permanent reference points during construction.
- C. Notify Engineer 48 hours in advance of need for relocation of reference points due to changes in grades or other reasons.
- D. Report promptly to Engineer the loss or destruction of any reference point.

- E. Contractor shall reimburse Owner for cost of reestablishment of permanent reference points disturbed by Contractor's operations.

1.07 SURVEY REQUIREMENTS

- A. Utilize recognized engineering survey practices.
- B. Establish elevations, lines and levels to provide appropriate controls for the Work. Locate and lay out by instrumentation and similar appropriate means:
 - 1. Site improvements including pavements; stakes for grading; fill and topsoil placement; utility locations, slopes, and invert elevations.
 - 2. Grid or axis for structures.
 - 3. Building foundation, column locations, ground floor elevations.
- D. Verify periodically layouts by same means.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

Section 01732

PROCEDURE FOR WATER VALVE ASSISTANCE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Operation of existing valves is by the owner's employees. Operation of new valves by the Contractor's employees is included in the project. No valve will be operated without prior approval by the Resident Project Representative.

1.02 MEASUREMENT AND PAYMENT

- A. No separate payment will be made for this item. Include the cost of valve operation and valve assistance in Unit Price bid for valves and water mains.

1.03 PROCEDURE

- A. The Contractor will notify the Resident Project Representative to coordinate valve operation.

1.04 CANCELLATION

- A. Scheduled valve closures may be terminated in the event of a water system emergency at no cost to the Owner.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

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Section 01740

RESTORATION OF SITE IMPROVEMENTS**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Restoration of the Work site in public rights-of-way or easements and adjacent public or private property affected by construction operations, including pavement, esplanades, sidewalks, driveways, fences, lawns and landscaping.

1.02 UNIT PRICES

- A. Unpaved Surface Restoration.
 - 1. No separate payment will be made for Restoration of Site Improvements in unpaved areas. Include the cost of the Restoration of Site Improvements in unpaved areas in the unit prices of other associated work.
- B. Paved Surface Restoration.
 - 1. Pavement and Driveway Replacement. Measure replaced pavement by the linear foot along the associated pipeline. Payment will be made at the applicable unit price for concrete pavement replacement. Payment will be made at the applicable unit price for asphaltic concrete pavement replacement. Payment will be made at the applicable unit price for gravel (crushed stone) road or driveway replacement.
 - 2. Sidewalk Replacement. Measure sidewalks by the linear foot along the associated pipeline. Payment will be made at the unit price for sidewalk replacement.
 - 3. Curb and Gutter. Measure curb and gutter by the linear foot for the distance between the limits of the minimum trench width plus 2 feet or the trench length, as applicable. Payment will be made at the unit price for curb and gutter replacement.
 - 4. Replacement Outside of Minimum Dimensions. Pavements, driveways and sidewalks damaged outside of the minimum dimensions for payment shall be replaced by the Contractor at no additional cost to the City.

1.03 REFERENCES

- A. ANSI Z60.1. American Standard for Nursery Stock.

1.04 DEFINITIONS

- A. Site Restoration. Replacement or reconstruction of site improvements to rights-of-way, easements, public property, and private property that are affected or altered by construction operations, with the improvements restored to a condition which is equal to, or better than, that which existed prior to construction operations.
- B. Site Improvements. Includes but is not limited to pavement, curb and gutter, esplanades, sidewalks, driveways, fences, lawns, irrigation systems, and landscaping.

1.05 SUBMITTALS

- A. Make submittals in conformance with Section 01330 - Submittal Procedures.

1.06 QUALITY ASSURANCE

- A. Have landscape plantings planted by qualified personnel.

1.07 SCHEDULING

- A. Site restoration shall be performed no later than 60 days following installation of the Work.

1.08 WARRANTY

- A. Replaced plants and grasses are covered by the Contractor's general warranty and guarantee.
- B. Replace plants that fail during the warranty period.
- C. Contractor to provide a written notification to homeowner stating that homeowner is responsible for watering replaced plants and grasses.
- D. Damage caused by natural hazards such as hail, high winds or storm is not covered by the warranty.
- E. Existing plant material required to be moved on the site are covered under the warranty.

PART 2 PRODUCTS**2.01 MATERIALS**

- A. Pavement, Sidewalks and Driveways. Use materials as specified in Section 02744 – Pavement Replacement for Utility Construction.
- B. Seeding and Sodding. Provide sod as specified in Section 02922 - Sodding. For areas to be seeded, conform to Section 02922 - Hydromulch Seeding.
- C. Landscape Plantings, Trees and Shrubs. Provide trees, shrubs and plants of quantity, size, genus, species and variety of those being replaced and complying with recommendations and requirements of ANSI Z60.1.

PART 3 EXECUTION**3.01 EXAMINATION**

- A. Construction Site Photographs. Document conditions on and adjacent to the construction site with construction photographs.

3.02 PREPARATION

- A. Removing Pavements and Structures.
 - 1. Remove the minimum pavement, curb and gutter, and other structures as required to perform the Work.
 - 2. Remove concrete and asphaltic concrete material using sawed joints in accordance with Section 02752 - Concrete Pavement Joints.

- B. Remove or relocate existing fencing, if required, for construction operations. Maintain the integrity of the private property owner's fencing if needed for protection of children, pets, livestock or property. Notify the property owner 72 hours in advance before removing fencing and coordinate security needs.

3.03 INSTALLATION

- A. Pavement, Sidewalk, and Driveway Restoration.
 - 1. Replace pavement, curb and gutter, sidewalks, and driveways removed or damaged as the result of construction operations. Reconstruct in accordance with Section 02951 - Pavement Replacement for Utility Construction.
- B. Seeding and Sodding.
 - 1. Clean up construction debris and level the area with bank sand so that the resulting surface of the new grass matches the level of the existing grass and maintains pre-construction drainage patterns. Level minor ruts or depressions caused by construction operations where grass is still viable by filling with bank sand.
 - 2. Restore grass areas disturbed or damaged by construction with grass comparable with that previously existing.
 - 3. Restore established lawn areas, including easements and esplanades disturbed or damaged by construction, by sodding and fertilizing in accordance with Section 02922 - Sodding, except that measurement and payment shall be as specified in this Section.
 - 4. Restore grass areas not requiring sodding using hydromulch methods in accordance with Section 02922 - Hydromulch Seeding, except that measurement and payment shall be as specified in this Section.
- C. Trees, Shrubbery and Plants.
 - 1. Extra care shall be taken in removing and replanting trees, shrubbery and plants. Trees, shrubbery and plants shall be removed in a way that leaves soil around the roots. Trees, shrubbery and plants shall be placed outside of excavation area.
 - 2. Replace in kind any trees, shrubbery, and plants removed or damaged by construction operations.
 - 3. Have a nursery or landscape firm make tree replacements using balled-and- burlapped nursery stock. Within the availability of standard nursery stock, replace each removed tree with one of an equivalent species and size, but with not less than a 2-1/2-inch-diameter trunk, as measured 1-1/2 feet above natural ground.
- D. Fence Removal and Replacement.
 - 1. Replace fencing removed or damaged, including, but not limited to, posts, caps, concrete footings, concrete curb under fence, wire, wire mesh, wood panels, top and bottom railing.
 - 2. Reconstruct any portion of the fence disturbed by construction which is not equal to or better than that which existed prior to construction operations as evidenced by preconstruction photographs or videos.
 - 3. Remove and dispose of damaged or substandard material.

3.04 CLEANING

- A. Remove debris and trash which is the result of the Contractor's operation to maintain a clean and orderly site.

3.05 MAINTENANCE

- A. Maintain plantings, sodded areas and seeded areas through warranty period.
- B. Replace plantings and seeded or sodded areas that fail to become established through the warranty period.
- C. Maintain plantings as follows:
 - 1. Initial watering shall be by Contractor. Continued maintenance shall be by homeowner.
 - 2. Repair or replace bracing as necessary.
 - 3. Prune as necessary.
- D. If it is necessary to remove tree branches, have removal and other necessary pruning performed by a qualified nursery or landscape firm utilizing best standard practices.

END OF SECTION

Section 01770

CLOSEOUT PROCEDURES**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Closeout procedures including final submittals such as operation and maintenance data, warranties, and spare parts and maintenance materials.

1.02 CLOSEOUT PROCEDURES

- A. Comply with Document 00700 - General Conditions regarding Final Completion and Final Payment when Work is complete and ready for Engineer's final inspection.
- B. Provide Project Record Documents in accordance with Section 01785.
- C. Complete or correct items on punch list, with no new items added. Any new items will be addressed during warranty period.
- D. The Owner will occupy portions of the Work as specified in other Sections.

1.03 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. For facilities, clean interior and exterior glass and surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Clean equipment and fixtures to a sanitary condition.
- D. Clean or replace filters of operating equipment.
- E. Clean debris from roofs, gutters, downspouts, and drainage systems.
- F. Clean site; sweep paved areas, rake clean landscaped surfaces.
- G. Remove waste and surplus materials, rubbish, and temporary construction facilities from the site following the final test of utilities and completion of the work.

1.04 ADJUSTING

- A. Adjust operating equipment to ensure smooth and unhindered operation.

1.05 OPERATION AND MAINTENANCE DATA

- A. Submit operations and maintenance data as noted in 01330 - Submittal Procedures.

1.06 WARRANTIES

- A. Provide one original of each warranty from Subcontractors, suppliers, and manufacturers.
- B. Provide Table of Contents and assemble warranties in 3-ring/D binder with durable plastic cover.
- C. Submit warranties prior to final Application for Payment.
- D. Warranties shall commence in accordance with the requirements in Document 00700 - General Conditions.

1.07 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual Specification sections.
- B. Deliver to location within the Owner's jurisdiction as directed by Resident Project Representative; obtain receipt prior to final Application for Payment.

PART 2 PRODUCTS - Not Used**PART 3 EXECUTION - Not Used**

END OF SECTION

Section 01785

PROJECT RECORD DOCUMENTS**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Maintenance and Submittal of Project Record Documents and samples.

1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Maintain one record copy of documents at the site in accordance with Document 00700 - General Conditions.
- B. Store Record Documents and samples in Contractor's field office if a field office is required by Contract Documents, or in a secure location. Provide files, racks, and secure storage for Record Documents and samples.
- C. Label each document "PROJECT RECORD" in neat, large, printed letters.
- D. Maintain Record Documents in a clean, dry, and legible condition. Do not use Record Documents for construction purposes.
- E. Keep Record Documents and Samples available for inspection by Resident Project Representative.

1.03 RECORDING

- A. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
- B. Contract Drawings and Shop Drawings: Legibly mark each item to record all actual construction, or "as built" conditions, including:
 - 1. Measured depths of elements of foundation in relation to finish first floor datum.
 - 2. Measured horizontal locations and elevations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Elevations of underground utilities referenced to bench mark utilized for project.
 - 4. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of construction.
 - 5. Field changes of dimension and detail.
 - 6. Changes made by modifications.
 - 7. Details not on original contract drawings.
 - 8. References to related shop drawings and modifications.

- C. Record information with a red felt-tip marking pen on a set of blue or black line opaque drawings, provided by Engineer.

1.04 SUBMITTALS

- A. At contract closeout, deliver Project Record Documents to Engineer.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

Section 02001

BUTTERFLY VALVES**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Butterfly valves Class 150 3"- 20".

1.02 UNIT PRICES

- A. Measurement for butterfly valves is on a per each basis for each size valve installed. Such line item includes material and labor to furnish and install each size valve.
- B. Refer to Section 01270 - Measurement and payment for unit price procedures.

1.03 REFERENCES

- A. AWWA C 111/ANSI 21.11 – Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings
- B. AWWA C 504 – Butterfly Valves
- C. ASTM A 48 - Gray Iron Castings
- D. ASTM A 126 – Gray Iron Castings for Valves, Flanges and Pipe Fittings
- E. ASTM A 536 - Ductile Iron
- F. ASTM A 743 – Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant for General Application

1.04 SUBMITTALS

- A. Submittals shall conform to requirements of Section 01330 - Submittal Procedures.
- B. Submit manufacturer's product data for proposed valves for approval.

1.05 QUALITY CONTROL

- A. Submit manufacturer's affidavit that butterfly valves are manufactured in the United States and conform to stated requirements of AWWA C 504, and this Section, and that they have been satisfactorily tested in accordance with AWWA C 504 as appropriate.

PART 2 PRODUCTS -

2.01 BUTTERFLY VALVES

- A. Butterfly valves: Shall meet or exceed the latest revision of AWWA Standard C504 for Class 150B butterfly valves and shall meet or exceed the requirements of this specification. Valves 12" or smaller shall have a working pressure of 200 psi. All valves are to be tested at and shall be capable of withstanding bi-directional hydrostatic test pressures up to 225 psi without leaking. Valves shall meet NSF/ANSI 61/372. Only nuts and bolts are to be 316 L stainless steel.
- B. Valve Bodies: Shall be of cast iron per ASTM A126 Class B or ductile iron ASTM A536 Grade 65-45-12. Flanged end valves shall be of the short body design with Class 125 flanged ends faced and drilled per ASME B16.1 standard for cast iron flanges. Mechanical Joint end valves shall meet the requirements of AWWA C111/ANSI 21.11.
- C. Discs: Shall be offset to provide an uninterrupted 360 degree seating edge and shall be 316 stainless steel ASTM A743 no other material will be approved. The disc seating edge shall be solid 316 stainless steel. Sprayed mating seating surfaces are not acceptable. The disc shall be securely attached to the valve shaft utilizing a field removable/replaceable 316 stainless steel torque screw on sizes 3-12" (80-300mm) or a tangential pin locked in place with a set screw on sizes 14-20" (350-500mm).
- D. Valve Shaft: shall be type 316 stainless steel. Valve shaft seals shall be self-compensating V-type packing with a minimum of four sealing rings. One-piece molded shaft seals and o-ring shaft seals are not acceptable.
- E. Seat: Shall be of Acrylonitrile-Butadiene (NBR) for water and shall be molded in and vulcanized to the valve body. The seat shall contain an integral shaft seal protecting the valve bearings and packing from any line debris. Seats vulcanized to cartridge inserts in the valve body and seats on the disc are not acceptable.
- F. Valve Shaft Bearings: Shall be non-metallic and permanently lubricated.
- G. Coatings: The exterior and interior metallic surfaces of each valve shall be painted per the latest revision of AWWA C504. The interior of the body shall have a full rubber lining vulcanized to the valve body. Mechanical Joint valves shall be fully rubber lined to point of pipe insertion. Rubber lining on the flange face and boot style seats are not acceptable.

2.02 Manufacturers

- A. Butterfly valves shall be manufactured by DeZURIK or approved equal.

PART 3 EXECUTION**3.01 GENERAL**

- A. Valves, operating units, stem extensions, valve boxes, and accessories shall be installed in accordance with the manufacturer's installation instructions. Valves shall be independently supported to prevent stresses on the pipe.
- B. Valves shall be installed to provide easy access for operation, removal, and maintenance and to prevent interferences between valve operators and structural members or handrails.

- C. Where combinations of valves, sensors, switches, and controls are indicated, the combinations shall be properly assembled and installed to ensure that systems are compatible and operating properly.
- D. All items shall be domestic made.

3.02 TESTING

- A. All valves must pass a leakage test. No visible leaks must be found during normal filter operations. No additional payment will be made for such test.

3.03 WARRANTY

- A. Contractor shall provide a two (2) year warranty for all valves.

END OF SECTION

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SPECIFICATIONS

5000	PNEUMATIC ROTARY VANE C540-08 VALVE ACTUATORS
22 15 13	GENERAL-SERVICE COMPRESSED-AIR PIPING



Jose Antonio Nicanor
10/19/2020



J. Gabriel Hinojosa
10/19/2020

SECTION 5000

PNEUMATIC ROTARY VANE C540-08 VALVE ACTUATORS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Furnish, install, startup, and test pneumatic rotary vane AWWA C540-08 compliant valve actuators and associated valves with required accessories as shown on the Plans and as specified herein. A single manufacturer shall provide the vane type pneumatic valve actuators and valves as one complete system. The valves shall be DeZURIK Butterfly Valves with options and accessories to match existing. Field-verify, existing conditions prior to bid.
- B. The CONTRACTOR shall furnish and install the required air tubing with fittings, connections, taps, pressure switches, electrical devices, wiring, and terminations necessary for a complete system and shall also install the valves with valve actuators. Each actuator shall have an isolation safety exhaust valve with locking handle provided at each branch airline to the actuator. Air tubing shall be furnished and installed from the compressor to the actuators. Air tubing and fittings shall be 316 stainless steel and sized accordingly. Slope air headers to low points and provide moisture traps with drip legs at the low points. Branch connections off main line shall be made off the top of the main line. Furnish taps, isolation valves, and pressure switches on the air piping as shown on the Plans.
- C. The CONTRACTOR shall coordinate between the pneumatic valve actuator/control valve supplier and the control system supplier to provide a complete and fully operational system. It will be the valve/actuator supplier's responsibility to provide actuators that are capable of sending and accepting the necessary signals from the control system. The valve/actuator supplier shall provide any limit switches, smart positioners or other devices necessary to enable the status of the valves (OPEN/CLOSE or position for modulating valves) to be monitored and controlled by the control system.

1.02 QUALITY ASSURANCE

- A. All equipment of each type specified in this section shall be supplied by a single supplier.
- B. The equipment supplier shall furnish a qualified field representative for a minimum of 4 working days total to provide guidance with installation, inspect all equipment described herein after installation, to assist in troubleshooting, to advise the OWNER during startup and testing, and to train Owner's personnel in routine maintenance and troubleshooting procedures. This time period shall consist of a minimum of 8-hour days, and travel to and from the project site shall not be included. CONTRACTOR shall coordinate the scheduling of such training and startup assistance with Owner's personnel. Travel to and from the project site shall be the responsibility of and at the cost of the equipment supplier. OWNER may videotape training session.
- C. Supplier's installation report is required prior to final acceptance.
- D. Supplier shall maintain a complete stock of spare parts commonly needed for the equipment specified at a location, or shall furnish spare parts within 48 hours of request.
- E. All automated valve assemblies shall have an engraved Type 316 stainless steel manufacturer's nameplate securely affixed in a conspicuous place on the equipment showing

the ratings, serial number, model number, manufacturer and other pertinent nameplate data.

1.03 SUBMITTALS

- A. Submittals shall be prepared and submitted in accordance Owner specifications.
- B. The following submittals are required at a minimum in addition to the applicable requirements of Owner specifications.
 - 1. Shop drawings and applicable product data specific to this project shall be supplied in electronic format, adobe-pdf file, with table of contents, organized with engineer's requirements. The following information shall be included as a minimum:
 - a. Part numbers of all equipment within this specification and a schedule showing all operators and valves furnished for this project.
 - b. Design performance characteristics, capacities, sizes, ratings, and other appropriate information.
 - c. Layout drawings including all proposed system components with dimensions, clearances required and sizes indicated, and arrangement and size of connections.
 - d. Listing of materials of construction for all components.
 - e. Complete information on all electric and instrumentation equipment and electric power requirements.
 - f. Complete wiring diagrams and data on controls to be furnished.
 - g. Manufacturer's instructions regarding delivery, storage and handling of equipment.
 - h. Adjustable settings with range provided for valve opening, closing, and emergency closing speeds.
 - 2. Location of nearest stocking distributor of spare parts.
 - 3. Complete operation and maintenance data for all major equipment and ancillary items in accordance with specifications.
 - 4. Startup and test schedule.
 - 5. Equipment installation report with field test data and test records.
 - 6. Warranties and service agreements.
- C. All deviations from Contract Documents shall be clearly identified and submitted to the ENGINEER/Owner through the CONTRACTOR as a Contract Modification Request.
- D. Any other information necessary for ENGINEER/Owner to determine compliance with the specifications.
- E. ENGINEER/Owner will not review Partial or incomplete submittals.

1.04 EXPERIENCE REQUIREMENTS

- A. All equipment shall be furnished by a supplier or manufacturer having at least twenty (20) U.S. installations of the type being proposed, including coordination and assembly responsibility for the valve, actuator and associated devices for a complete package, each with a minimum of 5 years of satisfactory service.
- B. A list of similar installations shall be furnished with the shop drawing submittal, including names and telephone numbers of contacts.

1.05 DELIVERY, STORAGE AND HANDLING

Delivery, storage and handling shall be in full accordance with manufacturer's instructions.

1.06 WARRANTY

All actuator assemblies shall be warranted for a period of three (3) years from date of shipment. A certificate listing actuator serial numbers shall be provided prior to shipment in order to validate the warranty. Valve carries valve manufacturer's standard warranty.

PART 2 - PRODUCTS

2.01 PNEUMATIC ROTARY VANE C540-08 VALVE ACTUATOR DESIGN

- A. The actuator is essentially an integral part of the valve assembly.
- B. Actuator Design: Pneumatic actuators are to be of the vane type design with only one (1) moving part. Actuator shall have a vane position indicator milled into the output shaft. One side of the actuator shall be manufactured to ISO/NAMUR mounting standards for attachment of accessories (limit switches, indicators, positioners). Seals shall be double opposed lip seals with stainless steel expanders. Seal backing plates shall be steel. O-ring seals on vane will not be acceptable.
- C. Actuator Materials of Construction:
1. Housing: Pressure die cast ADC1 or A356 aluminum casting with all surfaces coated with thermosetting polyester powder coat with Ultraviolet Inhibitor. Zinc housing will not be permitted. Actuator housing to include industry-standard NAMUR accessory mount interfaces as an integral part of the housing. The NAMUR VDI/VDE 3845 to be included on top of the actuators and on the solenoid manifold to allow for the easy installation of standard actuator control accessories.
 - (i) For highly corrosive installations and where specified in the Valve Actuator Schedule, the actuator manufacturer shall provide a Fluoropolymer final finish on both the actuator interior and exterior and on the complete vane and output shafts. Exterior-only coating will not be acceptable and manufacturer must have at least 5 years of successful installation history with the Fluoropolymer finish.
 - (ii) The Fluoropolymer coating shall have documented testing to chemical resistance to salt spray, ammonium hydroxide, hydrochloric acid, calcium hypochloride, sodium hypochloride, ferric chloride, among other chemicals for a period of six (6) months with no deterioration.
 - (iii) Vane actuator case halves will have Fluoropolymer coating prior to assembly. The case halves shall be Fluoropolymer coated on all surfaces including all tapped holes, untapped holes, flat face flange, and any other opening or ports.
 - (iv) Actuator vane shall be electro less nickel-plated finish prior to application of the Fluoropolymer coating on vane.
 - (v) All threaded fittings shall have a locking and sealing compound designed for metal tapered threads and fittings. All actuators shall be tested after assembly. Actuators shall not require more than three (3) psig to be cycled a complete stroke in each direction before they are connected to the valve. Test report documenting zero (0) cross vane leakage shall be submitted prior to shipment.
 2. Vane / Output Shaft: Steel ASTM A148 per AWWA C540-2, Grade 115-95, heat treated with electro less nickel plated finish. Ductile Iron vane / output shafts will not be acceptable.
 3. Vane Seals: HBNR highly-saturated Buna Nitrile, rated -5 to +300 degrees F., no exception.
 4. Shaft Seals: Buna N.
 5. Vane Seal Expanders: Stainless spring steel.
 6. Side Plates: Steel with all surfaces coated with thermosetting epoxy powder coat.
 7. Form B, 22mm coil, Class F, cURus, Nema 4X.
 8. 1/2" conduit CSA black connector.

C. Actuator Position-Control Capability:

1. Open/Close Valves: Actuators shall be solenoid operated. Solenoids for smaller size actuators shall be standard ISO/NAMUR VDI/VDE 3845 direct mounted with the option to be remote mounted for increased accessibility. Solenoid coils shall be 120 VAC / 60 Hz, NEMA 4 rated. Speed control devices shall allow independent adjustment of OPEN and CLOSE cycling speed. Each solenoid valve to include manual override to lock-and-hold valve in either the OPEN or CLOSE position in the event of a power outage. Exhaust air mufflers shall be standard. Provide 80 to 150 PSI clean, dry air to solenoid valve. 1/2" conduit CSA black connector. Form B, 22mm coil, Class F, cURus, Nema 4X. Solenoid valves shall be K-TORK 'SIDEWINDER' Series.

Each Open/Close actuator shall include valve position feedback limit switches for remote OPEN and CLOSE indication. Two SPDT switches shall be housed in a NEMA 4/4X nickel plated aluminum enclosure with transparent polycarbonate lid, ensuring a device totally unaffected by corrosion, in salty and humid atmosphere. 3D Dome-style visual valve position indicator that can be seen from above and from the side. The switch box output shaft and fasteners to be stainless steel and shall mount to the actuator per NAMUR VDI/VDE 3845 with a stainless steel bracket. The two electromechanical switch contacts shall be rated 5A@250 VAC, 0.5A@24 VDC, resistive/inductive. Limit switches shall be adjustable by press, turn and release motion requiring the use of no tools. The limit switch assembly to be UL and CUL Listed and approved and shall be manufactured by Rotork / K-TORK 'SOLDO' Series.

The solenoid coil must be pre-wired to spare terminals labeled 'Solenoid Valve' inside the limit switch enclosure and all field connections for both the limit switches and solenoid valves shall be terminated inside the limit switch box.

2. Modulating Valves: The actuator shall be designed to control the valve in all positions from fully open to fully closed, and from fully closed to fully open with control in any intermediate position corresponding to the variable controls system input. Positioner shall consume a MAXIMUM of .070 SCFM while in the resting state. Positioners consuming greater than .070 SCFM will not be acceptable. Modulating actuators shall be supplied with intelligent SMART diagnostics. Positioners shall have ISO/NAMUR VDI/VDE 3845 standard output shaft to allow direct mounting to actuator without need for adaptors. The positioner will receive a 4-20 mA positioning signal from the control system for precision positioning control of the valve in all positions from closed to open. As standard, the positioner shall include an Auto / Manual switch to allow for local actuator control without removing the positioner cover. Additionally, the positioner will have four pushbuttons for local control located inside the enclosure. The positioner shall have auto-stroke / auto-calibration capability as standard for easy commissioning. LCD 0-100% visual indication of valve position will be located in the positioner cover. Where specified in the Valve Actuator Schedule, provide optically-isolated analog 4-20 mA position transmitter, (2) mechanical limit switches or both, mounted inside the positioner housing. Positioner construction shall be of Stainless steel with NEMA 4/4X, IP66 rating and be suitable for -22° F. to +185°. Fasteners to be stainless steel. Provide 80-100 psi clean dry supply air to the positioner. Positioner shall be manufactured and supplied by the actuator manufacturer and shall be intended for use with the actuator provided for modulating application. Positioner shall be as manufactured by Rotork / YTC #3300R.
3. Mechanical Manual Override: Where specified in the Valve Actuator Schedule, actuator shall include a mechanical worm gear manual override de-clutch gearbox

and hand wheel to be mounted between the valve and the actuator. The manual override shall be able move and hold the valve in any position between full OPEN and full CLOSE. When the actuator is in 'AUTO' operation, the gear shall be de-clutched and will 'free wheel'. To use the override, isolate the incoming air supply and bleed all pressure from the actuator, then engage the worm to the segment. The engagement lever shall include a stainless steel legend plate clearly identifying the lever position with "AUTO" and "MANUAL". The manual override shall be capable of remaining on the valve and fully operational with the actuator removed and include two mechanical valve position stops. The manual override shall have a cast iron housing and stainless steel input shaft and fasteners, rated for IP68 / NEMA 4/4X environments. The manual override shall have an EPOXY NZ PRIMER and Polyurethane finish paint, both 40 – 60 microns. Hand wheel diameter to be selected to limit rim pull to a maximum of 80#. Include 3-way actuator vent valve(s) as required to bleed the actuator and isolate the supply air during manual operation. The 3-way vent valve(s) shall include "Auto" and "Manual" legend plate and the hand wheel shall include OPEN and CLOSE designations and directional arrows. The de-clutch manual override shall be manufactured by Rotork / K-TORK, the actuator supplier without exception.

- E. Accessories such as limit switches, positioners, solenoid valves, speed controls, piping and tubing, as required by the specification, shall be mounted and tested by the actuator manufacturer to the actuators prior to shipment to the jobsite.
- F. Torque Capability: The rated torque capability of each actuator shall be sufficient to seat, unseat, and rigidly hold, in any intermediate position, the valve disc it controls under the operating conditions specified herein. Torque safety factors shall conform to AWWA Standards and in no case be less than 1.25 times the valve manufactures specified torques based on operating conditions.
- G. Safety Factor: Actuator housings, supports, and connections to the valve shall be designed with a minimum safety factor of 5, based on the ultimate strength, or a minimum safety factor of 3, based on the yield strength of materials used.
- H. Stop-Limiting Devices: Valve actuators shall be equipped with adjustable mechanical stop-limiting devices to prevent over-travel of the valve disc in the open and closed positions. Position stops shall provide, at minimum, 80 to 100 degrees of adjustable travel.
- I. The pneumatic actuators shall have a working pressure of 150 psig per AWWA C540-2 standards with an overload pressure of 220 psig. Actuators with a published 100 psig maximum operating pressure rated will not be acceptable.
- J. Actuators shall be equipped with adjustable flow-control devices controlling the operating air exhausting from the actuator. The devices shall be located at or near the actuator or on the solenoid valve. The opening and closing speeds shall be nominally set for a range of 30 to 90 seconds, variable with valve sizes. Final adjustments shall be made by the CONTRACTOR to minimize line surges during normal operation.
- K. Actuators shall not require more than three (3) psig to be cycled a complete stroke in each direction before they are connected to the valve.
- L. Actuator Testing:
 - 1. Performance Tests: Each actuator and valve assembly shall be cycled a minimum of three (3) times prior to assembly to the valve and in the field using the start and stop controls from the fully closed to the fully open position to demonstrate that the complete assembly, including controls, operates properly.

2. Test Certification: Certification of tests and copies of test or certificate of conformity reports shall be provided to the ENGINEER/Owner.

P. Bracket and Couplings:

1. Custom fabricated bracket to adapt the actuator to the new or existing (retrofit) valves shall be heavy wall rectangular stainless steel tube and shall retain the valve stem packing or provide for use of the original draw-down packing gland as required.
2. All brackets and couplings shall have electro statically applied fusion bonded polyester powder coated finish.
3. Couplings shall be made of bar stock stainless steel with keyway and stainless steel setscrew.

Q. Acceptable Manufacturers:

1. K-TORK Actuators & Controls, made by Rotork Dallas, 10410 Vista Park Road, Dallas, Texas 75238 Telephone number (214) 343-9980
2. Engineer Pre-Approved equal

2.02 OPERATOR AIR TUBING

Air tubing on valve operators shall be 316 stainless steel. Air tubing shall be sized according to actuator size.

2.03 VALVE ACTUATOR SCHEDULE

Valve Tag / Service	Valve Type	Size	Qty.	Actuator Type	Actuator Finish	Manual O-ride	Fail Position	Limit Switch	Position Transmitter
Effluent ROF	BFV	12"	4	MOD	PC	Y	O	Y	Y
Influent	BFV	12"	4	O/C	PC	Y	O	Y	Y
Backwash Waste	BFV	18"	4	O/C	PC	Y	C	Y	Y
Backwash Supply	BFV	12"	4	O/C	PC	Y	C	Y	Y
Backwash ROF	BFV	14"	1	MOD	PC	Y	C	Y	Y
Surface Wash	BFV	4"	4	O/C	PC	Y	C	Y	Y

Abbreviations:

1. Valve Type: BFV=butterfly valve, EPV=eccentric plug valve, BV=ball valve
2. Actuator Type: O/C=Open-Close, MOD=Modulating
3. Actuator Finish: PC=Powder Coat, FP=Fluoropolymer
4. Manual O-ride: Indicates mechanical manual override declutch gearbox, Y=Yes, N=No
5. Fail Position: Based on loss of power or control signal, C=Close, O=Open
6. Limit Switch: Suitable for O/C or MOD actuators, Y=Yes, N=No
7. Position transmitter: 4-20 mA output, used on MOD actuators only, Y=Yes, N=No

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Complete equipment installation with controls, safety devices and auxiliary support systems necessary to start the equipment and verify that the equipment functions correctly under no load conditions. Turn rotating equipment by hand to check. Complete cleaning and testing of piping systems. Inspect and clean equipment, devices, piping, and structures of debris and foreign material.
- B. Remove temporary bracing supports and other construction debris that may damage equipment.
- C. Remove protective coatings and oils used for protection during shipment and installation.
- D. Flush, fill, and grease lubricated systems in accordance with Manufacturer's instructions.
- E. Install temporary connections and devices required to fill, operate, checkout and drain the system. Provide temporary valves, gauges, piping, test equipment, and other materials and equipment necessary to conduct testing and startup.
- F. Check equipment for correct direction of rotation and freedom of moving parts.
- G. Align equipment to Manufacturer's tolerances. Adjust clearances and torques.
- H. Check installation prior to start-up for conformance to Manufacturer's instructions.
- I. Adjust or modify equipment to ensure proper operation.
- J. Correct any deficiencies or problems noted in Manufacturer's representative's installation reports.

3.02 FIELD QUALITY CONTROL

Verify that structures, equipment, pipes, valves, fittings, and other appurtenances are compatible. Coordinate field devices, voltages, signal types, power needed, and programming with valve operator to provide proper functioning system.

3.03 MANUFACTURER'S REPRESENTATIVE

- A. The services of the manufacturer's technical representative shall be provided for pre-startup installation checks, startup assistance, training of Owner's personnel, troubleshooting, acceptance testing, and other services as required within these Contract Documents.
- B. Manufacturer's representative shall:
 - 1. Approve installation in writing to Engineer/Owner before operation.
 - 2. Verify conformance to all specified requirements.
 - 3. Fully instruct all designated personnel for the plant on proper care, maintenance, and operation of all equipment and appurtenances.
 - 4. Perform specified acceptance tests and operate system to verify satisfactory operation of all equipment in presence of Owner's personnel and Engineer.
 - 5. Check all equipment for excessive noise or vibration, proper alignment, general

- operation, etc.
6. Operate the equipment through the design performance range consistent with available flows. Adjust, balance, and calibrate and verify that the equipment, safety devices, controls, and process system operate within the design conditions. Each safety device shall be tested for proper setting and signal. Response shall be checked for each equipment item and alarm. Simulation signals may be used to check equipment and alarm responses.
 7. Place each piece of equipment in the system in operation until the entire system is functioning. All components shall continue to operate without alarms or shutdowns, except as intended, for 8 consecutive hours to be considered started up.
 8. Submit certified written field reports to the Engineer/Owner.
 9. Provide a certificate by the valve actuator supplier indicating proper installation and start-up procedures have been followed. This certificate shall be required and included as part of the final operation and maintenance manuals in order to validate the specified three (3) year warranty.
 10. Revisit job sites as often as necessary beyond minimum services specified to correct deficiencies to satisfaction of ENGINEER.

3.04 ACCEPTANCE TEST

- A. Upon completion of the installation of each valve actuator, an acceptance test will be conducted to verify the satisfactory operation and performance of each actuator. Each valve shall be opened and closed using the plant control system as applicable (AUTO) and manually. The control valves shall also be tested under power loss to verify proper closure.
- B. The test shall be conducted in a manner approved by and in the presence of the ENGINEER. The equipment and piping will be completely checked for leakage, general operation, etc.
- C. Each valve actuator must perform in a manner acceptable to the ENGINEER/Owner prior to final acceptance.

END OF SECTION

SECTION 221513

GENERAL-SERVICE COMPRESSED-AIR PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes piping and related specialties for general-service compressed-air systems operating at 200 psig (1380 kPa) or less.

1.3 DEFINITIONS

- A. CR: Chlorosulfonated polyethylene synthetic rubber.
- B. EPDM: Ethylene-propylene-diene terpolymer rubber.
- C. NBR: Acrylonitrile-butadiene rubber.
- D. High-Pressure Compressed-Air Piping: System of compressed-air piping and specialties operating at pressures between 150 and 200 psig (1035 and 1380 kPa).
- E. Low-Pressure Compressed-Air Piping: System of compressed-air piping and specialties operating at pressures of 150 psig (1035 kPa) or less.

1.4 SUBMITTALS

- A. Product Data: For the following:
 - 1. Stainless steel pipes, fittings, and valves.
 - 2. Dielectric fittings.
 - 3. Flexible pipe connectors.
 - 4. Safety valves.
 - 5. Pressure regulators. Include rated capacities and operating characteristics.
 - 6. Automatic drain valves.
 - 7. Filters. Include rated capacities and operating characteristics.
 - 8. Lubricators. Include rated capacities and operating characteristics.
 - 9. Quick couplings.
 - 10. Hose assemblies.

- B. Brazing and welding certificates.
- C. Qualification Data: For Installers.
- D. Field quality-control test reports.
- E. Operation and Maintenance Data: For general-service compressed-air piping specialties to include in emergency, operation, and maintenance manuals.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications:
 - 1. Extruded-Tee Outlet Procedure: Qualify operators according to training provided by T-DRILL Industries Inc., for making branch outlets.
 - 2. Pressure-Seal Joining Procedure for Copper Tubing: Qualify operators according to training provided by successful contractor.
 - 3. Pressure-Seal Joining Procedure for Steel Piping. Qualify operators according to training provided by Manufacturer.
- B. Brazing: Qualify processes and operators according to ASME Boiler and Pressure Vessel Code: Section IX, "Welding and Brazing Qualifications," or to AWS B2.2, "Standard for Brazing Procedure and Performance Qualification."
- C. Welding: Qualify processes and operators according to ASME Boiler and Pressure Vessel Code: Section IX.
- D. ASME Compliance:
 - 1. Comply with ASME B31.1, "Power Piping," for high-pressure compressed-air piping.
 - 2. Comply with ASME B31.9, "Building Services Piping," for low-pressure compressed-air piping.

1.6 PROJECT CONDITIONS

- A. Interruption of Existing Compressed-Air Service: Do not interrupt compressed-air service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary compressed-air service according to requirements indicated:
 - 1. Notify Engineer & Owner no fewer than two days in advance of proposed interruption of compressed-air service.
 - 2. Do not proceed with interruption of compressed-air service without Engineer's or Owner's written permission.

PART 2 - PRODUCTS

2.1 PIPES, TUBES, AND FITTINGS

- A. Schedule 40, 316 Stainless Steel Pipe.
- B. Transition Couplings for Metal Piping: Metal coupling or other manufactured fitting same size as, with pressure rating at least equal to and ends compatible with, piping to be joined.

2.2 JOINING MATERIALS

- A. Pipe-Flange Gasket Materials: Suitable for compressed-air piping system contents.
 - 1. ASME B16.21, nonmetallic, flat, asbestos free, 1/8-inch (3.2-mm) maximum thickness unless thickness or specific material is indicated.
 - a. Full-Face Type: For flat-face, Class 125, cast-iron and cast-bronze flanges.
 - b. Narrow-Face Type: For raised-face, Class 250, cast-iron and steel flanges.
- B. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, unless otherwise indicated.
- C. Brazing Filler Metals: AWS A5.8/A5.8M, BCuP Series, copper-phosphorus alloys for general-duty brazing, unless otherwise indicated.
- D. Welding Filler Metals: Comply with AWS D10.12/D10.12M for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.

2.3 VALVES

- A. Metal Ball, Butterfly, Check, Gate, and Globe Valves:

2.4 DIELECTRIC FITTINGS

- A. General Requirements for Dielectric Fittings: Combination fitting of copper alloy and ferrous materials with insulating material; suitable for system fluid, pressure, and temperature. Include threaded, solder-joint, plain, or weld-neck end connections that match piping system materials.
- B. Dielectric Unions: Factory-fabricated union assembly, for 250-psig (1725-kPa) minimum working pressure at 180 deg F (82 deg C).

2.5 FLEXIBLE PIPE CONNECTORS

- A. Available Manufacturers: Subject to compliance with requirements.

- B. Bronze-Hose Flexible Pipe Connectors: Corrugated-bronze tubing with bronze wire-braid covering and ends brazed to inner tubing.
 - 1. Working-Pressure Rating: 200 psig (1380 kPa) minimum.
 - 2. End Connections, NPS 2 (DN 50) and Smaller: Threaded copper pipe or plain-end copper tube.
 - 3. End Connections, NPS 2-1/2 (DN 65) and Larger: Flanged copper alloy.

- C. Stainless-Steel-Hose Flexible Pipe Connectors: Corrugated-stainless-steel tubing with stainless-steel wire-braid covering and ends welded to inner tubing.
 - 1. Working-Pressure Rating: 200 psig (1380 kPa) minimum.
 - 2. End Connections, NPS 2 (DN 50) and Smaller: Threaded steel pipe nipple.
 - 3. End Connections, NPS 2-1/2 (DN 65) and Larger: Flanged steel nipple.

2.6 SPECIALTIES

- A. Safety Valves: ASME Boiler and Pressure Vessel Code: Section VIII, "Pressure Vessels," construction; National Board certified, labeled, and factory sealed; constructed of bronze body with poppet-type safety valve for compressed-air service.
 - 1. Pressure Settings: Higher than discharge pressure and same or lower than receiver pressure rating.

- B. Air-Main Pressure Regulators: Bronze body, direct acting, spring-loaded manual pressure-setting adjustment, and rated for 250-psig (1725-kPa) inlet pressure, unless otherwise indicated.
 - 1. Type: Pilot operated.

- C. Air-Line Pressure Regulators: Diaphragm or pilot operated, bronze body, direct acting, spring-loaded manual pressure-setting adjustment, and rated for 200-psig (1380-kPa) minimum inlet pressure, unless otherwise indicated.

- D. Air-Line Pressure Regulators: Diaphragm operated, aluminum alloy or plastic body, direct acting, spring-loaded manual pressure-setting adjustment, and rated for 200-psig (1380-kPa) minimum inlet pressure, unless otherwise indicated.

- E. Automatic Drain Valves: Stainless-steel body and internal parts, rated for 200-psig (1380-kPa) minimum working pressure, capable of automatic discharge of collected condensate. Include mounting bracket if wall mounting is indicated.

- F. Coalescing Filters: Coalescing type with activated carbon capable of removing water and oil aerosols; with color-change dye to indicate when carbon is saturated and warning light to indicate when selected maximum pressure drop has been exceeded. Include mounting bracket if wall mounting is indicated.

- G. Mechanical Filters: Two-stage, mechanical-separation-type, air-line filters. Equip with deflector plates, resin-impregnated-ribbon-type filters with edge filtration, and drain cock. Include mounting bracket if wall mounting is indicated.
- H. Air-Line Lubricators: With drip chamber and sight dome for observing oil drop entering air stream; with oil-feed adjustment screw and quick-release collar for easy bowl removal. Include mounting bracket if wall mounting is indicated.
 - 1. Provide with automatic feed device for supplying oil to lubricator.

2.7 QUICK COUPLINGS

- A. General Requirements for Quick Couplings: Assembly with locking-mechanism feature for quick connection and disconnection of compressed-air hose.
- B. Automatic-Shutoff Quick Couplings: Straight-through brass body with O-ring or gasket seal and stainless-steel or nickel-plated-steel operating parts.
 - 1. Socket End: With one-way valve and threaded inlet for connection to piping or threaded hose fitting.
 - 2. Plug End: Straight-through type with barbed outlet for attaching hose.
- C. Valveless Quick Couplings: Straight-through brass body with stainless-steel or nickel-plated-steel operating parts.
 - 1. Socket End: With O-ring or gasket seal, without valve, and with barbed inlet for attaching hose.
 - 2. Plug End: With barbed outlet for attaching hose.

2.8 HOSE ASSEMBLIES

- A. Description: Compatible hose, clamps, couplings, and splicers suitable for compressed-air service, of nominal diameter indicated, and rated for **300-psig (2070-kPa)** minimum working pressure, unless otherwise indicated.
 - 1. Hose: Reinforced single- or double-wire-braid, CR-covered hose for compressed-air service.
 - 2. Hose Clamps: Stainless-steel clamps or bands.
 - 3. Hose Couplings: Two-piece, straight-through, threaded brass or stainless-steel O-ring or gasket-seal swivel coupling with barbed ends for connecting two sections of hose.
 - 4. Hose Splicers: One-piece, straight-through brass or stainless-steel fitting with barbed ends for connecting two sections of hose.

PART 3 - EXECUTION

3.1 PIPING APPLICATIONS

- A. Compressed-Air Piping between Air Compressors and Receivers: Use the following piping materials for each size range:
 - 1. **NPS 2 (DN 50)** and Smaller: Schedule 40, stainless-steel pipe and fittings.
- B. Low-Pressure Compressed-Air Distribution Piping: Use the following piping materials for each size range:
 - 1. **NPS 2 (DN 50)** and Smaller: Schedule 40, stainless-steel pipe and fittings.
- C. Drain Piping: Use the following piping materials:
 - 1. **NPS 2** and Smaller: **Type M** copper tube; wrought-copper fittings; and brazed or soldered joints.

3.2 VALVE APPLICATIONS

- A. General-Duty Valves: Use metal valves, unless otherwise indicated.
 - 1. Metal General-Duty Valves:
 - a. Low-Pressure Compressed Air: Valve types specified for low-pressure compressed air.
 - b. High-Pressure Compressed Air: Valve types specified for medium-pressure compressed air.
 - c. Equipment Isolation **NPS 2 (DN 50)** and Smaller: Safety-exhaust, copper-alloy ball valve with exhaust vent and pressure rating at least as great as piping system operating pressure.
 - d. Grooved-end valves may be used with grooved-end piping and grooved joints.

3.3 PIPING INSTALLATION

- A. Drawing plans, schematics, and diagrams indicate general location and arrangement of compressed-air piping. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, air-compressor sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.
- B. Install piping concealed from view and protected from physical contact by building occupants, unless otherwise indicated and except in equipment rooms and service areas.
- C. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited, unless otherwise indicated.

- D. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal and to coordinate with other services occupying that space.
- E. Install piping adjacent to equipment and machines to allow service and maintenance.
- F. Install air and drain piping with 1 percent slope downward in direction of flow.
- G. Install nipples, flanges, unions, transition and special fittings, and valves with pressure ratings same as or higher than system pressure rating, unless otherwise indicated.
- H. Equipment and Specialty Flanged Connections:
 - 1. Use steel companion flange with gasket for connection to steel pipe.
 - 2. Use cast-copper-alloy companion flange with gasket and brazed joint for connection to copper tube. Do not use soldered joints for connection to air compressors or to equipment or machines producing shock or vibration.
- I. Flanged joints may be used instead of specified joint for any piping or tubing system.
- J. Extended-tee outlets with brazed branch connection may be used for copper tubing, within extruded-tee connection diameter to run tube diameter ratio for tube type, according to Extruded Tee Connections Sizes and Wall Thickness for Copper Tube (Inches) Table in ASTM F 2014.
- K. Install eccentric reducers where compressed-air piping is reduced in direction of flow, with bottoms of both pipes and reducer fitting flush.
- L. Install branch connections to compressed-air mains from top of main. Provide drain leg and drain trap at end of each main and branch and at low points.
- M. Install thermometer and pressure gage on discharge piping from each air compressor and on each receiver.
- N. Install piping to permit valve servicing.
- O. Install piping free of sags and bends.
- P. Install fittings for changes in direction and branch connections.
- Q. Install seismic restraints on piping.

3.4 JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.

- C. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
 - D. Welded Joints for Steel Piping: Join according to AWS D10.12/D10.12M.
 - E. Brazed Joints for Copper Tubing: Join according to AWS's "Brazing Handbook," "Pipe and Tube" Chapter.
 - F. Extruded-Tee Outlets for Copper Tubing: Form branches according to ASTM F 2014, with tools recommended by procedure manufacturer, and using operators qualified according to Part 1 "Quality Assurance" Article.
 - G. Flanged Joints: Use asbestos-free, nonmetallic gasket suitable for compressed air. Join flanges with gasket and bolts according to ASME B31.9 for bolting procedure.
 - H. Grooved Joints: Assemble couplings with housing, gasket, lubricant, and bolts. Join according to AWWA C606 for grooved joints. Do not apply lubricant to prelubricated gaskets.
 - I. Pressure-Sealed Joints: Join with tools recommended by fitting manufacturer, using operators qualified according to Part 1 "Quality Assurance" Article.
 - J. Dissimilar Metal Piping Material Joints: Use dielectric fittings.
- 3.5 VALVE INSTALLATION
- A. General-Duty Valves:
 - B. Install shutoff valves and unions or flanged joints at compressed-air piping to air compressors.
 - C. Install shutoff valve at inlet to each automatic drain valve, filter, lubricator, and pressure regulator.
 - D. Install check valves to maintain correct direction of compressed-air flow to and from compressed-air piping specialties and equipment.
- 3.6 DIELECTRIC FITTING INSTALLATION
- A. Install dielectric fittings in piping at connections of dissimilar metal piping and tubing.
 - B. **NPS 2 (DN 50)** and Smaller: Use dielectric unions.

3.7 FLEXIBLE PIPE CONNECTOR INSTALLATION

- A. Install flexible pipe connectors in discharge piping and in inlet air piping from remote air-inlet filter of each air compressor.
- B. Install bronze-hose flexible pipe connectors in copper compressed-air tubing.
- C. Install stainless-steel-hose flexible pipe connectors in steel compressed-air piping.

3.8 SPECIALTY INSTALLATION

- A. Install safety valves on receivers in quantity and size to relieve at least the capacity of connected air compressors.
- B. Install air-main pressure regulators in compressed-air piping at or near air compressors.
- C. Install air-line pressure regulators in branch piping to equipment.
- D. Install automatic drain valves on aftercoolers, receivers, and dryers. Discharge condensate onto nearest floor drain.
- E. Install coalescing filters in compressed-air piping at or near air compressors and upstream from mechanical filters.
- F. Install mechanical filters in compressed-air piping at or near air compressors and downstream from coalescing filters.
- G. Install air-line lubricators in branch piping to machine tools.
- H. Install quick couplings at piping terminals for hose connections.
- I. Install hose assemblies at hose connections.

3.9 CONNECTIONS

- A. Install unions, in piping **NPS 2 (DN 50)** and smaller, adjacent to each valve and at final connection to each piece of equipment and machine.

3.10 HANGER AND SUPPORT INSTALLATION

- A. Vertical Piping: MSS Type 8 or 42, clamps.
- B. Individual, Straight, Horizontal Piping Runs:
 - 1. **100 Feet (30 m)** or Less: MSS Type 1, adjustable, steel clevis hangers.
 - 2. Longer Than **100 Feet (30 m)**: MSS Type 43, adjustable roller hangers.

- C. Multiple, Straight, Horizontal Piping Runs **100 Feet (30 m)** or Longer: MSS Type 44, pipe rolls. Support pipe rolls on trapeze.
- D. Base of Vertical Piping: MSS Type 52, spring hangers.
- E. Support horizontal piping within **12 inches (300 mm)** of each fitting and coupling.
- F. Rod diameter may be reduced 1 size for double-rod hangers, with **3/8-inch (10-mm)** minimum rods.
- G. Install hangers for Schedule 40, steel piping with the following maximum horizontal spacing and minimum rod diameters:
 - 1. **NPS 1/4 to NPS 1/2 (DN 8 to DN 15): 96 inches (2400 mm)** with **3/8-inch (10-mm)** rod.
 - 2. **NPS 3/4 to NPS 1-1/4 (DN 20 to DN 32): 84 inches (2100 mm)** with **3/8-inch (10-mm)** rod.
- H. Install supports for vertical, Schedule 40, steel piping every **15 feet (4.6 m)**.

3.11 LABELING AND IDENTIFICATION

- A. Install identifying labels and devices for general-service compressed-air piping, valves, and specialties.

3.12 FIELD QUALITY CONTROL

- A. Perform field tests and inspections.
- B. Tests and Inspections:
 - 1. Piping Leak Tests for Metal Compressed-Air Piping: Test new and modified parts of existing piping. Cap and fill general-service compressed-air piping with oil-free dry air or gaseous nitrogen to pressure of **50 psig (345 kPa)** above system operating pressure, but not less than **150 psig (1035 kPa)**. Isolate test source and let stand for four hours to equalize temperature. Refill system, if required, to test pressure; hold for two hours with no drop in pressure.
 - 2. Repair leaks and retest until no leaks exist.
 - 3. Inspect filters, lubricators, and pressure regulators for proper operation.
- C. Prepare test reports.

END OF SECTION 221513