April 15, 2025

Notice is hereby given of a Regular Meeting of Nacogdoches City Council to be held on the above date in the City Council Chambers of City Hall, 202 E. Pilar Street, Nacogdoches, Texas, beginning at 5:30 p.m. for the purpose of considering the following agenda items.

Some City Council Members may attend via videoconference but a quorum of the City Council and the Presiding Officer will be present at the above-stated physical location. The meeting will be streamed live at: https://www.nactx.us/21. There will be an opportunity for the public to comment on agenda items in person in Council Chambers.

PLEASE LIMIT PRESENTATIONS TO THREE MINUTES
(UNLESS PRIOR APPROVAL IS OBTAINED)

1. CALL TO ORDER.

2. PLEDGE OF ALLEGIANCE.

3. OPEN FORUM. Open Forum is an opportunity for citizens to address the City Council about items listed on the agenda, as well as on matters that are not specifically listed on the agenda. Alternatively, a citizen may address the City Council about an agenda item when the item comes up for consideration during the meeting. In order to address the City Council, please complete the Public Comment Form and submit it to the City Secretary prior to the start of the meeting. In accordance with the Texas Open Meetings Act, the City Council will not discuss, deliberate, or make any decisions on items not listed on the agenda. Comments are limited to 3 minutes per person.

4. ITEMS TO BE REMOVED FROM CONSENT AGENDA.

5. CONSENT AGENDA: Items included under Consent Agenda require little or no deliberation by Council. Approval of Consent Agenda authorizes the City Manager or his designee to proceed with conclusion of each in accordance with staff recommendations as reflected in the minutes of this meeting.

   A. Consider approval of a contract by and between the City of Nacogdoches and Stokes & Associates, Inc. to provide engineering design services for the replacement or rehabilitation of the grit chamber removal system at the wastewater treatment plant (WWTP) for a not-to-exceed amount of $146,500.00. (Assistant Director of Public Works/Assistant City Engineer)

   B. Consider and approve the rejection of bids received for the CDBG MLK Waterline Construction Project (Assistant Director of Public Works/Assistant City Engineer)

   C. Consider Resolution No. 1390-04-25 authorizing the application submission for Grant No. CRC23-0543 through the Texas Community Development Block Grant program and the Texas Department of Agriculture, Rural Economic Development Fund. (Executive Director of Development & Infrastructure)

D. Consider approval of an amended purchase order with Siddons-Martin Emergency Group for replacement parts and/or repair of fire apparatus in the amount of $70,000. (Fire Chief)

E. Consider approval of minutes for the April 1, 2025, City Council Work Session and the April 1, 2025, City Council Regular Meeting. (City Secretary)

6. REGULAR AGENDA: City Council will receive staff recommendations and public input on the following items, and may deliberate and take formal action on the item.

A. Consider approval of an Interlocal Agreement between the City of Nacogdoches, Nacogdoches County, and Nacogdoches Independent School District for for Sale of Tax-Foreclosed Properties (City Attorney)

B. Consider approval of a contract by and between the City of Nacogdoches and Capital Underground Utilities for the ARPA Collection System Improvements Project for a not-to-exceed amount of $1,305,902.00. (Director of Public Works/City Engineer)

7. EXECUTIVE SESSION: Executive Sessions are for City Council to receive information and deliberate on matters specified in Subchapter D of the Texas Open Meetings Act. Council may reconvene in open session to vote on the matter.

A. Deliberation regarding Real Property under Government Code Section 551.072 is as follows:
A governmental body may conduct a closed meeting to deliberate the purchase, exchange, lease or value of real property if deliberation in an open meeting would have a detrimental effect on the position of the governmental body in negotiations with a third person.

- Acquisition of a portion of 802 E. Main Street (Liberty Hall) by Texas Department of Transportation for construction/renovation of Lanana Creek Bridge.
- Acquisition of a portion of 900 E. Main Street (Master Gardeners Demonstration Garden) by Texas Department of Transportation for construction/renovation of Lanana Creek Bridge.
- Acquisition of a portion of property located on N. Stallings Drive (Westward Subdivision) by Texas Department of Transportation for construction/renovation of US 59 ROW project.

8. ADJOURN.

Rhonda Lewis
City Secretary

This agenda is posted as required under G. C. Section 551.041. For more information or a copy of the Open Meetings Act, please contact Attorney General of Texas at 1-800-252-8011; City Secretary at (936) 559-2506 or visit City of Nacogdoches web site at www.nactx.us.

CERTIFICATION

This meeting will be conducted pursuant to Chapter 551 of the Texas Government Code. The Council reserves the right to adjourn into Executive Session at any time during the meeting to discuss any of the above posted agenda, as authorized by Texas Local Government Code Sections 551.071 [litigation and certain consultation with attorney], 551.072 [acquisition of interest in real property], 551.073 [prospective gift to city], 551.074 [certain personnel deliberations], 551.076 [deployment/implementation of security personnel or devices], or 551.087 [deliberations regarding economic development negotiations]. The City of Nacogdoches is committed to compliance with the Americans with Disabilities Act. Reasonable modifications and equal access to communications may be provided upon request. Please contact the City Secretary at (936) 559-2506 for information. I certify the notice of meeting was posted in the directory outside of City Hall, 202 E. Pilar Street, Nacogdoches, Texas 75961, on April 15, 2025, by 5:00 p.m., pursuant to Chapter 551 of the Texas Government Code.

_____

Rhonda Lewis, City Secretary

PRESENTER: Jason Vickery, Assistant City Engineer

ITEM/SUBJECT: Consider approval of a contract by and between the City of Nacogdoches and Stokes & Associates, Inc. to provide engineering design services for the replacement or rehabilitation of the grit chamber removal system at the wastewater treatment plant (WWTP) for a not-to-exceed amount of $146,500.00. (Assistant Director of Public Works/Assistant City Engineer)

SUMMARY/BACKGROUND: Staff continues to review the need for improvements at the WWTP. We continue to look at ways for WWTP to be cost-effective and provide safe and secure wastewater treatment for our City. Our goal is to extend the life of the equipment at the WWTP for as long as possible.

The grit chamber removal system removes grit, sand, and other inorganic particles from the wastewater at the beginning of the WWTP. Currently, the existing grit chamber removal system is not operable and is in need of replacement. Without this process, these materials pass through to other treatment units, potentially causing additional equipment damage or failure. It also becomes a more significant and costly effort to remove the grit, sand, and other inorganic particles once they have passed through the beginning of the wastewater treatment process. Replacement or rehabilitation of the existing grit chamber removal system is a FY24/25 CIP budgeted project.

Stokes & Associates, Inc. has a long history of designing successful WWTP projects for the City.

Under this proposed contract, Stokes & Associates, Inc. will perform three (3) tasks, including:

Task 1 – Preliminary Evaluation
Stokes & Associates, Inc. shall perform a field inspection of the existing grit chamber system to evaluate the overall condition and shall provide the City with recommendations and an opinion of probable costs associated with those recommendations. The intent is to determine what equipment is available that can utilize the existing influent structure and that is capable of achieving the desired removal results for the WWTP.

Task 2 – Final Design Plans and Specifications
Stokes & Associates, Inc. shall prepare the design plans in accordance with the recommendations provided and approved by the City per the Preliminary Evaluation listed above. The design services shall include the necessary civil, mechanical, and electrical drawings and specifications required for the grit system rehabilitation.

Task 3 – Bidding and Construction Phase
Stokes & Associates, Inc. shall provide the City with the bidding and construction phase services, including but not limited to, bid advertisement, tabulated summary of bids received,

prepare a written recommendation of award to the City, assist in a pre-construction conference, review of material submittals, review contractor pay requests, make periodic inspections of the work on going and assist the City with final inspection and project closeout.

Stokes & Associates, Inc. estimates that this proposed effort will require 120 days to complete after notice to proceed.

FINANCIAL:
Item is budgeted:
Account No.: 30.39 680.97
Account Name: *Wastewater Treatment CIP*
Amount: $146,500.00

COUNCIL PRIORITIES: THIS AGENDA ITEM IS CONSISTENT WITH THE FOLLOWING CITY COUNCIL PRIORITIES
Infrastructure

CITY CONTACT: Jason Vickery, PE
Asst. Dir. of PW/Asst. City Engineer
vickeryj@nactx.us
(936) 559-2515

ATTACHMENTS: 1. 2025 WWTP Grit Chamber Rehabilitation_Stokes Contract

CITY OF NACOGDOCHES
ARCHITECTURAL & ENGINEERING
PROFESSIONAL SERVICES CONTRACT

This Contract is between the **City of Nacogdoches**, a Texas home-rule municipal corporation, (the "City") and **Stokes & Associates, Inc.** (the "Consultant"), whereby the Consultant agrees to provide the City with certain professional services as described herein and the City agrees to pay the Consultant for those services.

ARTICLE I
Scope of Services

1.01 In consideration of the compensation stated in paragraph 2.01 below, the Consultant agrees to provide the City with the professional services as described in **Exhibit A,** the Scope of Services, which is incorporated herein by reference for all purposes, and which services may be more generally described as follows: **2025 WWTP Grit Chamber Rehabilitation Project** (the "Project").

ARTICLE II
Payment

2.01 In consideration of the Consultant's provision of the professional services in compliance with all terms and conditions of this Contract, the City shall pay the Consultant according to the terms set forth in **Exhibit B**. Except in the event of a duly authorized change order, approved by the City as provided in this Contract, the total cost of all professional services provided under this Contract may not exceed **One Hundred Forty-Six Thousand Five Hundred and 00/100 Dollars ($146,500.00)**.

ARTICLE III
Time of Performance and Construction Cost

3.01 The Consultant shall complete the professional services within the times set forth in **Exhibit B**. Consultant expressly agrees that such times are as expeditious as is prudent considering the ordinary professional skill and care of a competent engineer or architect.

3.02 **Time is of the essence of this Contract.** The Consultant shall be prepared to provide the professional services in the most expedient and efficient manner possible in order to complete the work by the times specified. Promptly after the execution of this Contract, the Consultant shall prepare and submit for the City to approve in writing, a detailed schedule for the performance of the Consultant's services to meet the City's project milestone dates which are included in this Contract. The Consultant's schedule shall include allowances for periods of time required for the City's review and for approval of submissions by authorities having jurisdiction over the Project. The schedule will also specify payment milestones associated with design tasks.

3.03 The Consultant's services consist of all of the services required to be performed by Consultant, Consultant's employees and Consultant's sub-consultants under the terms of this Contract. Such services include normal civil, structural, mechanical ~~and electrical~~ engineering services, plumbing, food service, acoustical and landscape services, and any other design services that are normally or customarily furnished and reasonably necessary for the Project. The Consultant shall contract and employ at its expense sub-consultants necessary for the design of the Project, and such sub-consultants shall be licensed as required by the State of Texas and approved in writing by the City.

3.04 The Consultant shall designate a principal of the firm reasonably satisfactory to the City who shall, for so long as acceptable to the City, be in charge of Consultant's services to be performed hereunder through to completion, and who shall be available for general consultation throughout the Project. Any replacement of that principal shall be approved in writing (which shall not be unreasonably withheld) by the City, prior to replacement.

3.05 Consultant shall be responsible for the coordination of all drawings and design documents relating to Consultant's design and used on the Project, regardless of whether such drawings and documents are prepared by Consultant. Consultant shall be responsible for the completeness and accuracy of all drawings and specifications submitted by or through Consultant and for its compliance with all applicable codes, ordinances, regulations, laws and statutes.

3.06 Consultant's evaluations of the City's project budget and the preliminary estimates of construction cost and detailed estimates of construction cost represent the Consultant's best judgment as a design professional familiar with the construction industry.

ARTICLE IV
Conceptual Design

4.01 Consultant shall meet with the City for the purpose of determining the nature of the Project. The Consultant shall inquire in writing as to the information it believes the City may have in its possession that is necessary for the Consultant's performance. The City shall provide the information within its possession that it can make available to the Consultant. The City shall designate a representative to act as the contact person on behalf of the City.

4.02 The Consultant shall determine the Project needs, including, but not limited to, tests, analyses, reports, site evaluations, surveys, comparisons with other municipal projects, review of budgetary constraints and other preliminary investigations necessary for the Project. Consultant shall verify the observable existing conditions of the Project and verify any existing as-built drawings. Consultant shall confirm that the Project can be designed and constructed within the time limits outlined in this Contract. Consultant shall prepare a detailed design phase schedule which includes all review and approval periods during the project phases from Conceptual Design to Construction, design development and construction document phases. Consultant shall confirm that the Project can be designed and constructed for the dollar amount of the Project budget, if applicable. Consultant shall generally review the City's available budget for the Project and provide an early opinion of the adequacy of funds for the intended scope of work.

4.03 The Consultant shall prepare a Conceptual Design that shall include preliminary schematic layouts, alternative ideas, surveys, sketches and exhibits demonstrating the considerations involved in the Project. The Conceptual Design shall contemplate compliance with all applicable laws, statutes, ordinances, codes and regulations. Upon the City's request, the Consultant shall meet with City staff and/or City Council to make a presentation of its report.

ARTICLE V
Preliminary Design

5.01 The City shall direct the Consultant to commence work on the Preliminary Design by sending to the Consultant a letter of authorization to begin work on the Preliminary Design pursuant to this Contract. Upon receipt of the letter of authorization to commence Preliminary Design, the Consultant shall meet with the City for the purpose of determining the extent of any revisions to the Conceptual Design.

5.02 The Consultant shall prepare the Preliminary Design of the Project, including, but not limited to, the preliminary drawings and specifications and other documents to fix and describe the size and character of the Project as to civil, architectural, structural, mechanical and electrical systems, materials and such other elements as may be appropriate. The Consultant shall submit to the City a detailed estimate of the construction costs of the Project, based on current area, volume, or other unit costs. This estimate shall also indicate costs for allowances, contingencies, fees, permits, and all other costs involved in constructing the Project and the time required for construction of the Project from commencement to final completion.

5.03 Upon completion of the Preliminary Design of the Project, the Consultant shall so notify the City. Upon request the Consultant shall provide a Preliminary Engineering Report and meet with the City staff and/or City Council to make a presentation of its Preliminary Design of the Project. The Consultant shall provide an explanation of the Preliminary Design and cost estimate and shall verify that, to the best of Consultant's belief, the Project requirements and construction can be completed within the Project budget and schedule.

ARTICLE VI
Final Design

6.01 The City shall direct the Consultant to commence work on the Final Design of the Project by sending to the Consultant a letter of authorization to begin work on the Final Design phase of the Project. Upon receipt of the Letter of Authorization to proceed with Final Design of the Project, the Consultant shall immediately prepare the Final Design, including, but not limited to, the bid documents, contract, drawings, and specifications, to fix and describe the size and character of the Project as to civil, structural, mechanical, and electrical systems, materials, and such other elements as may be appropriate. The Final Design of the Project shall comply with all applicable laws, statutes, ordinances, codes and regulations.

6.02 Notwithstanding the City's approval of the Final Design, the Consultant warrants that the Final Design will be sufficient and adequate to fulfill the purposes of the Project. Additionally, Consultant will provide technical criteria, written descriptions and design data for the City's use in filing applications for permits from other governmental authorities or entities. Consultant shall assist the City in the preparation of permits and consultations with other entities having jurisdiction over the Project.

6.03 The Consultant shall prepare and separately seal the special provisions, the technical specifications, and bid proposal form(s) in conformance with the City's *current* pre-approved, "Standard Form of Construction Agreement" for the construction contract between the City and the construction contractor. The Consultant hereby agrees that no changes, modifications, supplementations, alterations, or deletions will be made to the City's standard form without the prior written approval of the City.

6.04 The Consultant shall provide the City with complete construction design plans and contract documents sufficient to be advertised for bids by the City. The contract documents shall include the design and specifications and other changes that are required to fulfill the purpose of the Project. Upon completion of the Final Design of the Project, with the submission of the complete contract documents, and upon request of the City, the Consultant shall meet with City staff and/or the City Council to present the Final Design of the Project. The Consultant shall provide an explanation of the Final Design and cost estimate.

ARTICLE VII
Bid Preparations & Evaluation

7.01 The Consultant shall assist the City in advertising for and obtaining bids or negotiating proposals for the construction of the Project. Upon request, the Consultant shall meet with City staff and/or the City Council to present, and make recommendations on, the bids submitted for the construction of the Project.

7.02 The Consultant shall review the construction contractors' bids, including subcontractors, suppliers, and other persons required for completion of the Project. The Consultant shall

evaluate each bid and provide these evaluations to the City along with a recommendation on each bid. The Consultant shall also review the qualifications and references of the lowest responsible bidder. A written evaluation of the bids shall be provided to the City by Consultant and shall include any bidding irregularities subject to waiver. If the lowest bid for the construction of the Project exceeds the final cost estimate set forth in the Final Design of the Project, then the Consultant, at its sole cost and expense, shall revise the construction documents so that the total construction costs of the Project will not exceed the final cost estimate contained in the Final Design of the Project.

7.03 Where substitutions are requested by a construction contractor, the Consultant shall review the substitution requested and shall recommend approval or disapproval of such substitutions.

ARTICLE VIII
Construction Administration

8.01 The Consultant shall be a representative of, and shall advise and consult with, the City (1) during construction, and (2) at the City's direction from time to time during the correction or warranty period described in the construction contract. The Consultant shall have authority to act on behalf of the City only to the extent provided in this Contract unless modified by written instrument.

8.02 The Consultant shall make visits to the site, with a frequency appropriate to the scope of the Project, to inspect the progress and quality of the executed work of the construction contractor and its subcontractors and to determine if such work is proceeding in accordance with the contract documents. Consultant shall periodically review the as-built drawings for accuracy and completeness, and shall report its findings to the City.

~~8.03 Resident Project Representative (RPR): The Consultant shall provide the services of an RPR to support more frequent and extensive observations of the contractor's work. The presence of the RPR will not diminish the responsibilities of the Consultant's design professionals to provide site visits to monitor the progress of the project. Duties and responsibilities of the RPR include:~~

~~a. The RPR will generally deal directly with the contractor and report to the Consultant, who in turn will report to the City. The RPR works under the direction of the Consultant. The RPR may communicate directly with the City, but only with the knowledge of the Consultant.~~

~~b. The RPR will not normally direct the work of the contractor but shall observe its compliance with the plans and specifications and report such directly to the Consultant. The RPR can communicate any concerns directly to the contractor, but all observed conditions will always be given to the Consultant as well.~~

~~c. If the RPR observes unsafe conditions, or other potentially hazardous conditions that might risk life and safety to anyone, he/she will immediately report such to the~~

~~contractor, Consultant and City. In such circumstances, the RPR will have the authority to stop the work of the contractor until the issue can be resolved.~~

~~d. The RPR shall, on behalf of the Consultant, make and keep as-built drawings in the field to record any variances from the original designs shown in plans and specifications.~~

~~e. The RPR shall keep and maintain inspection reports for each day he/she is present on the project site. These reports shall be made available to the City at the end of the project. The daily reports shall include times of observations, activities observed, materials used or delivered to the job, problems encountered and solutions or adjustments made in the field.~~

~~f. The RPR shall review pay estimates from the contractor, on behalf of the Consultant, to verify the quantity and quality of work requested for payment. At no time will the RPR approve pay estimates, contract addendums, modifications, or change orders involving changes in the contract price.~~

~~g. The RPR shall be present to observe and witness all testing of on-site equipment and installed materials under the direction of the Consultant.~~

8.04 The Consultant shall keep the City informed of the progress and quality of the work through periodic project meetings and written monthly status reports. The Consultant shall employ the professional skill and care ordinarily provided by competent engineers or architects practicing in the same or similar locality and under the same or similar circumstances and professional license in discovering and promptly reporting to the City any defects or deficiencies in such work and shall disapprove or reject any work failing to conform to the contract documents.

8.05 The Consultant shall review and approve shop drawings and samples, the results of tests and inspections, and other data that each construction contractor or subcontractor is required to provide. The Consultant's review and approval shall include a determination of whether the work complies with all applicable laws, statutes, ordinances and codes and a determination of whether the work, when completed, will be in compliance with the requirements of the contract documents.

8.06 The Consultant shall determine the acceptability of substitute materials and equipment that may be proposed by construction contractors or subcontractors. The Consultant shall also receive and review maintenance and operating instruction manuals, schedules, guarantees, and certificates of inspection, which are to be assembled by the construction contractor in accordance with the contract documents.

8.07 The Consultant shall issue all instructions of the City to the construction contractor as well as interpretations and clarifications of the contract documents pertaining to the performance of the work. Consultant shall interpret the contract documents and judge the performance thereunder by the contractor constructing the Project, and Consultant shall,

within a reasonable time, render such interpretations and clarifications as it may deem necessary for the proper execution and progress of the work. Consultant shall receive no additional compensation for providing clarification of the drawings and specifications.

8.08 The Consultant shall review the amounts owing to the construction contractor and recommend to the City, in writing, payments to the construction contractor of such amounts. The Consultant's recommendation of payment, being based upon the Consultant's on-site inspections, observations, and its experience and qualifications as a design professional, shall constitute a recommendation by the Consultant to the City that the quality of such work is in accordance with the contract documents and that the work has progressed to the point reflected in Consultant's recommendation for payment.

8.09 Upon notification from the construction contractor that the Project is substantially complete, the Consultant shall conduct an inspection of the site to determine if the Project is substantially complete. The Consultant shall prepare a checklist of items that shall be completed prior to final acceptance. Upon notification by the construction contractor that the checklist items designated by the Consultant for completion have been completed, the Consultant shall inspect the Project to verify final completion.

8.10 The Consultant shall not be responsible for the work of the construction contractor or any of its subcontractors, except that the Consultant shall be responsible for the construction contractor's schedules or failure to carry out the work in accordance with the contract documents if such failures result from the Consultant's negligent acts or omissions. This provision shall not alter the Consultant's duties to the City arising from the performance of the Consultant's obligations under this Contract.

8.11 The Consultant shall conduct at least one on-site inspection during the warranty period and shall report to the City as to the continued acceptability of the work.

8.12 The Consultant shall recommend and prepare change orders, work directives and clarification notices on behalf of the City but shall not execute and issue such documents or otherwise alter the financial scope of the Project without an advance, written authorization from the City.

8.13 The Consultant shall perform all of its duties under this Article VIII so as to not cause any delay in the progress of construction of the Project.

8.14 The Consultant shall assist the construction contractor and City in obtaining a Certificate of Occupancy by accompanying governing officials during inspections of the Project if requested to do so by the City.

ARTICLE IX
Change Orders & Documents & Materials

9.01 No changes shall be made, nor will invoices for changes, alterations, modifications, deviations, or extra work or services be recognized or paid to Consultant except upon the

prior written order from authorized personnel of the City. The Consultant shall not execute change orders on behalf of the City or otherwise alter the financial scope of the Project, except upon the prior written approval from authorized personnel of the City.

9.02 a. When the original contract amount plus all change orders is less than $50,000, the City Manager or his delegate may approve the written change order provided the change order does not increase the total amount set forth in the contract to more than $50,000. For such contracts, when a change order results in a total contract amount that exceeds $50,000, the City Council must approve such change order prior to commencement of the services or work.

b. When the original contract amount plus all change orders is equal to or greater than $50,000, the City Manager or his delegate may approve the written change order ~~provided the change order does not exceed $50,000, and provided the sum of all change orders does not exceed 25% of the original contract amount~~. For such contracts, when a change order exceeds $50,000 ~~or when the sum of all change orders exceeds 25% of the original contract~~, the City Council must approve such change order prior to commencement of the services or work.

c. **Any request by the Consultant for an increase in the Scope of Services and an increase in the amount listed in paragraph two of this Contract shall be made and approved by the City prior to the Consultant providing such services or the right to payment for such additional services shall be waived.** If there is a dispute between the Consultant and the City respecting any service provided or to be provided hereunder by the Consultant, including a dispute as to whether such service is additional to the Scope of Services included in this Contract, the Consultant agrees to continue providing on a timely basis all services to be provided by the Consultant hereunder, including any service as to which there is a dispute.

9.03 The Consultant shall furnish the City **Three** (**3**) sets of plans and specifications. It is hereby agreed that additional copies shall be provided to the City at the City's expense. The Consultant shall provide the City **One** (**1**) set of ~~reproducible, mylar~~ record drawings that clearly show all the changes made during the construction process, based upon the marked-up prints, drawings, and other data furnished by the construction contractor to the Consultant. The Consultant shall provide copies of documents, computer files if available, surveys, notes, and tracings used or prepared by the Consultant. The foregoing documentation, the Consultant's work product, and other information in the Consultant's possession concerning the Project shall be the property of the City from the time of preparation. The Consultant shall furnish one set of digital files representing the final record drawings.

ARTICLE X
Warranty, Indemnification & Release

10.01 Pursuant to Section 271.904(d) of the Texas Local Government Code, the Consultant shall perform the services with the professional skill and care ordinarily provided by competent

engineers or architects practicing under the same or similar circumstances and professional license and as expeditiously as is prudent considering the ordinary skill and care of a competent engineer or architect. The Consultant warrants that the information provided by the Consultant, the design, the preparation of drawings, the designation or selection of materials and equipment, the selection and supervision of personnel, and the performance of all other services under this Contract are performed with the professional skill and care ordinarily provided by competent engineers or architects practicing in the same or similar circumstances and professional license. Approval of the City shall not constitute, or be deemed, a release of the responsibility and liability of the Consultant, its employees, agents, or associates for the exercise of skill and diligence to promote the accuracy and competency of their designs, information, plans, specifications or any other document, nor shall the City's approval be deemed to be the assumption of responsibility by the City for any defect or error in the aforesaid documents prepared by the Consultant, its employees, associates, agents, or subcontractors.

10.02 The Consultant shall promptly correct any defective designs or specifications furnished by the Consultant at no cost to the City. The City's approval, acceptance, use of, or payment for, all or any part of the Consultant's services hereunder or of the Project itself shall in no way alter the Consultant's obligations or the City's rights hereunder.

10.03 In all activities or services performed hereunder, the Consultant is an independent contractor and not an agent or employee of the City. The Consultant and its employees are not the agents, servants, or employees of the City. As an independent contractor, the Consultant shall be responsible for the professional services and the final work product contemplated under this Contract. Except for materials furnished by the City, the Consultant shall supply all materials, equipment, and labor required for the professional services to be provided under this Contract. The Consultant shall have ultimate control over the execution of the services it is to provide under this Contract. The Consultant shall have the sole obligation to employ, direct, control, supervise, manage, discharge, and compensate all of its employees or subcontractors, and the City shall have no control of or supervision over the employees of the Consultant or any of the Consultant's subcontractors.

10.04 The Consultant must at all times exercise reasonable precautions on behalf of, and be solely responsible for, the safety of its officers, employees, agents, subcontractors, licensees, and other persons, as well as its personal property, while in the vicinity of the Project or any of the work being done on or for the Project. It is expressly understood and agreed that the City shall not be liable or responsible for the negligence of the Consultant, its officers, employees, agents, subcontractors, invitees, licensees, and other persons.

10.05 INDEMNITY. THE CONSULTANT SHALL INDEMNIFY, DEFEND, AND HOLD HARMLESS THE CITY, ITS OFFICERS, AGENTS, EMPLOYEES, REPRESENTATIVES, CONTRACTORS, ASSIGNEES AND/OR DESIGNEES (SEPARATELY AND COLLECTIVELY REFERRED TO IN THIS PARAGRAPH AS "INDEMNITEE"), FROM ANY AND ALL LIABILITY, ACTIONS, CLAIMS, DEMANDS OR SUITS, AND ALL RELATED DAMAGES, COSTS, ATTORNEY FEES, AND EXPENSES CAUSED BY, ARISING OUT OF, OR RESULTING

FROM ANY ACTS OF NEGLIGENCE, INTENTIONAL TORTS, WILFULL MISCONDUCT, PERSONAL INJURY OR DAMAGE TO PROPERTY AND OTHERWISE RELATED TO CONSULTANT'S PERFORMANCE, AND/OR FAILURES TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY THE CONSULTANT OR ITS AGENTS, EMPLOYEES, SUB-CONTRACTORS, ORDER FULFILLERS, OR CONSULTANTS UNDER CONTRACT TO CONSULTANT, OR ANOTHER ENTITY OVER WHICH THE CONSULTANT EXERCISES CONTROL, OR SUPPLIERS OF SUBCONTRACTORS IN THE EXECUTION OR PERFORMANCE OF THE CONTRACT.

10.06 CONSULTANT SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE CITY FROM AND AGAINST ANY AND ALL CLAIMS, VIOLATIONS, MISAPPROPRIATIONS OR INFRINGEMENT OF ANY PATENT, TRADEMARK, COPYRIGHT, TRADE SECRET OR OTHER INTELLECTUAL PROPERTY RIGHTS AND/OR OTHER INTANGIBLE PROPERTY, PUBLICITY OR PRIVACY RIGHTS AND/OR IN CONNECTION WITH OR ARISING FROM: (1) THE PERFORMANCE OR ACTIONS OF CONSULTANT PURSUANT TO THIS CONTRACT; (2) ANY DELIVERABLE, WORK PRODUCT, CONFIGURED SERVICE OR OTHER SERVICE PROVIDED HEREUNDER; AND/OR THE CITY'S AND /OR CONSULTANT'S USE OF OR ACQUISITION OF ANY REQUESTED SERVICES OR OTHER ITEMS PROVIDED TO THE CITY BY CONSULTANT OR OTHERWISE TO WHICH THE CITY HAS ACCESS AS A RESULT OF CONSULTANT'S PERFORMANCE UNDER THE CONTRACT.

10.07 CONSULTANT AND THE CITY AGREE TO FURNISH TIMELY WRITTEN NOTICE TO EACH OTHER OF ANY SUCH CLAIM UNDER 10.05 OR 10.06. CONSULTANT SHALL BE LIABLE TO PAY ALL COSTS OF DEFENSE, INCLUDING ATTORNEYS' FEES. THE DEFENSE OF ANY LAWSUIT SHALL BE COORDINATED BY THE CONSULTANT WITH THE CITY ATTORNEY WHEN THE CITY IS NAMED DEFENDANT IN ANY LAWSUIT AND CONSULTANT MAY NOT AGREE TO ANY SETTLEMENT WITHOUT FIRST OBTAINING THE CONCURRENCE FROM THE OFFICE OF THE CITY ATTORNEY. IF THE CITY DETERMINES THAT A CONFLICT EXISTS BETWEEN ITS INTERESTS AND THOSE OF CONSULTANT OR IF THE CITY IS REQUIRED BY LAW TO SELECT SEPARATE COUNSEL, THE CITY WILL BE PERMITTED TO SELECT SEPARATE COUNSEL AND THE CONSULTANT WILL PAY ALL REASONABLE COSTS OF THE CITY'S COUNSEL.

10.08 Release. The Consultant releases, relinquishes, and discharges the City, its officers, agents, employees, and volunteers from all claims, demands, and causes of action of every kind and character, including the cost of defense thereof, for any injury to, sickness or death of the Consultant or its employees and any loss of or damage to any property of the Consultant or its employees that is caused by or alleged to be caused by, arises out of, or is in connection with the Consultant's work to be performed hereunder. Both the City and the Consultant expressly intend that this release shall apply regardless of whether said claims, demands, and causes of action are covered,

in whole or in part, by insurance and in the event of injury, sickness, death, loss, or damage suffered by the Consultant or its employees, but not otherwise, this release shall apply regardless of whether such loss, damage, injury, or death was caused in whole or in part by the City, any other party released hereunder, the Consultant, or any third party.

10.09 It is agreed with respect to any legal limitations now or hereafter in effect and affecting the validity or enforceability of the indemnification, release or other obligations under Paragraphs 10.05, 10.06, 10.07 and 10.08 such legal limitations are made a part of the obligations and shall operate to amend same to the minimum extent necessary to bring the provision(s) into conformity with the requirements of such limitations, and as so modified, the obligations set forth therein shall continue in full force and effect.

ARTICLE XI
Insurance

11.01 The Consultant shall procure and maintain at its sole cost and expense for the duration of this Contract insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Consultant, its agents, representatives, volunteers, employees or subcontractors. The policies, limits and endorsements required are as set forth on **Exhibit C.**

ARTICLE XII
Use of Drawings, Specifications and Other Documents

12.01 The drawings, specifications and other documents prepared by the Consultant and Consultant's sub-consultants for this Project shall become the property of the City whether the Project is completed or not. The City shall be furnished and permitted to retain reproducible copies and electronic versions of Consultant's drawings, specifications and other documents.

12.02 The documents prepared by Consultant may be used as a prototype for other facilities by the City. The City may elect to use the Consultant to perform the site adaptation and other architectural or engineering services involved in reuse of the prototype. If so, the Consultant is obligated to perform the work for an additional compensation that will fairly compensate the Consultant and its sub-consultants only for the additional work involved. It is reasonable to expect that the fair additional compensation will be significantly less than the fee provided for under this Contract. If the City elects to employ a different architect or engineer to perform the site adaptation and other architectural or engineering services involved in reuse of the prototype, that architect or engineer will be entitled to use Consultant's sub-consultants on the same basis that Consultant would have been entitled to use them for the work on the reuse of the prototype, and such architect or engineer will be entitled, to the extent allowed by law, to duplicate the design and review and refer to the construction documents, approved shop drawings and calculations, and change order drawings in performing its work. The Consultant will not be responsible for errors and

omissions of a subsequent architect or engineer. The Consultant shall commit its sub-consultants to the terms of this subparagraph. The provisions of this section shall survive termination of this Contract.

12.03 In the event of termination of this Contract for any reason, the City shall receive all original documents prepared to the date of termination and shall have the right to use those documents and any reproductions in any way necessary to complete the Project.

12.04 Only the details of the drawings relating to this Project may be used by the Consultant on other projects, but they shall not be used as a whole without written authorization by the City. The City-furnished forms, conditions, and other written documents shall not be used on other projects by the Consultant.

ARTICLE XIII
Termination

13.01 The City may terminate this Contract at any time upon **thirty (30)** calendar days' written notice. Upon the Consultant's receipt of such notice, the Consultant shall cease work immediately. To the extent of funds appropriated or otherwise legally available for such purposes, the Consultant shall be compensated only for the services satisfactorily performed prior to the termination date.

13.02 If, through any cause, the Consultant fails to fulfill its obligations under this Contract, or if the Consultant violates any of the agreements of this Contract, the City has the right to terminate this Contract by giving the Consultant **five (5)** calendar days written notice to the Consultant. The Consultant will be compensated for the services satisfactorily performed prior to the termination date.

13.03 No term or provision of this Contract shall be construed to relieve the Consultant of liability to the City for damages sustained by the City because of any breach of contract and/or negligence by the Consultant. The City may withhold payments to the Consultant for the purpose of setoff until the exact amount of damages due the City from the Consultant is determined and paid.

ARTICLE XIV
Miscellaneous Terms

14.01 This Contract has been made under and shall be governed by the laws of the State of Texas. The parties agree that performance and all matters related thereto shall be in Nacogdoches County, Texas.

14.02 The City, or if State funds are used to pay any part of this contract, the State Auditor, may conduct an audit or investigation of any entity receiving funds directly under this contract or indirectly through a subcontract under the contract. Acceptance of funds under the contract or through a subcontract under the contract acts as acceptance of the authority of the City or the State Auditor to conduct an audit or investigation. Consultant agrees to

cooperate and must provide the City and/or State Auditor with access to any information the City and/or State Auditor considers relevant to the investigation or audit. The Consultant agrees to refund to the City any overpayments disclosed by any such audit.

14.03 The Consultant shall retain all such records for a period of four (4) years after final payment on this Contract or until all audit and litigation matters that the City has brought to the attention of the Consultant are resolved, whichever is longer.

14.04 Consultant hereby assigns to the City any and all claims for overcharges associated with this Agreement which arise under the antitrust laws of the United States, 15 USCA Section 1 et seq., and/or which arise under the antitrust laws of the State of Texas, Business and Commerce Code Ann., Section 15.01, et seq.

14.05 Notices shall be mailed to the addresses designated herein or as may be designated in writing by the parties from time to time and shall be deemed received when sent postage prepaid U.S. Mail to the following addresses:

City of Nacogdoches
Attn: City Manager
202 East Pilar Street
P.O. Box 635030
Nacogdoches, Texas 75961

Consultant:
Stokes & Associates, Inc.
Attn: Neal Holland, President
205 S. Marshall Street
Henderson, Texas 75654

14.06 No waiver by either party hereto of any term or condition of this Contract shall be deemed or construed to be a waiver of any other term or condition or subsequent waiver of the same term or condition.

14.07 This Contract represents the entire and integrated agreement between the City and the Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. This Contract may only be amended by written instrument approved and executed by the parties.

14.08 This Contract and all rights and obligations contained herein may not be assigned by the Consultant without the prior written approval of the City.

14.09 If any provision of this Contract shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court of competent jurisdiction finds that any provision of this Contract is invalid or unenforceable, but that by limiting such provision it may become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

14.10 The Consultant, its agents, employees, and subcontractors must comply with all applicable federal and state laws, the charter and ordinances of the City of Nacogdoches, and with all applicable rules and regulations promulgated by local, state, and national boards, bureaus, and agencies. The Consultant must obtain all necessary permits and licenses required in completing the work and providing the services required by this Contract.

14.11 **Contractor Affirmations:** If this contract is funded in whole or in part by money from the State of Texas, State law requires the following certifications, representations and/or warranties. Regardless of funding by the State, by signature hereon affixed, the Contractor hereby certifies that:

(a) Contractor has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with this Contract.

(b) Contractor represents and warrants that it has no actual or potential conflicts of interest in the goods and or services described in the scope of work to this contract.

(c) **Antitrust**. Pursuant to 15 U.S.C. §1, et seq. and Tex. Bus. & Comm. Code §15.01, et seq. neither the contractor nor the firm, corporation, partnership, or institution represented by the contractor, or anyone acting for such a firm, corporation or institution has violated the antitrust laws of this state, federal antitrust laws, nor communicated directly or indirectly the bid made to any competitor or any other person engaged in such line of business.

(d) **Debarment**. Contractor certifies that Contractor and its principals are eligible to participate in this transaction and have not been subjected to suspension, debarment, or similar ineligibility determined by any federal, state or local governmental entity and that Contractor is in compliance with the State of Texas statutes and rules relating to procurement. Entities ineligible for state procurement are listed on the State of Texas Debarred Vendor List maintained by the Texas Comptroller of Public Accounts and the System for Award Management (SAM) maintained by the General Services Administration. Entities ineligible for federal procurement are listed at http://www.sam.gov/content/exclusions .

(e) **Terrorism Watch List.** Contractor represents and warrants that it does not do business with Iran, Sudan or a foreign terrorist organization as prohibited by Texas Government Code 2252.152. Contractor certifies that it is not listed on the federal government's terrorism watch list as described in Executive Order 13224.

(f) **Convictions**. Under Sections 2155.006, 2155.0061 and 2261.053 of the Texas Government Code, Contractor certifies that it is not ineligible to receive the specified contract and may be terminated and payment withheld if this certification is inaccurate. These sections prohibit contracts that include proposed financial participation by an individual or business entity who has been convicted in the past five years of (a) violating a federal law or assessed a penalty in connection with a contract involving

relief for Hurricane Rita, Hurricane Katrina, or any other disaster, as defined by §418.004, Gov't Code, occurring after September 24, 2005; and (b) of any offense related to the direct support or promotion of human trafficking.

(g) **COVID Vaccinations**. Contractor certifies that it does not require its customers to provide any documentation certifying the Customer's COVID-19 vaccination or post-transmission recovery on entry to, or to receive service from the Contractor's business.

(h) **Boycotts.** (a) To the extent this Contract is considered a Contract for goods or services subject to § 2270.002 Texas Government Code, Contractor verifies that it: (i) does not boycott Israel; and (ii) will not boycott Israel during the term of this Contract.

(b) To the extent this Contract has a value of $100,000 or more and Contractor is an organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or limited liability company, including a wholly owned subsidiary, majority-owned subsidiary, parent company, or affiliate of those entities or business associations, that exists to make a profit that employs 10 or more full time employees, Contractor certifies that it: (i) does not and will not boycott energy companies during the term of the contract (*See Texas Government Code 2274.002, et seq.*); and (ii) does not and will not discriminate against a firearm entity or firearm trade association (*See Texas Government Code 2274.002, et seq.*).

14.12 The parties acknowledge that they have read, understood, and intend to be bound by the terms and conditions of this Contract. If there is a conflict between a provision in any documents provided by Consultant made a part of this Contract and any other provision in this Contract, the latter controls.

14.13 This Contract will be effective when signed by the last party whose signing makes the Contract fully executed. The parties may execute this Contract in duplicate originals, each of equal dignity.

14.14 **Notice of Indemnification. City and Consultant hereby acknowledge and agree that this Contract contains certain indemnification obligations and covenants.**

STOKES & ASSOCIATES, INC.
205 S. Marshall Street
Henderson, Texas 75654

By: _____
Printed Name:_____
Title:_____
Date:_____
Firm Registration No.:_____

CITY OF NACOGDOCHES
P. O. Box 635030
Nacogdoches, Texas 75963-5030

By: _____
Printed Name: _____
Title: City Manager
Date:_____

APPROVED AS TO CONTENT:

_____
Director of Public Works

APPROVED AS TO FORM:

_____
City Attorney

Exhibit A
Scope of Services

In general, the work will involve the rehabilitation or replacement of the existing grit chamber system at the City of Nacogdoches Wastewater Treatment Plant.

Preliminary Evaluation

1. The Engineer shall obtain copies of all plans, reports, permits or other pertinent information relating to the project from the City.

2. The Engineer shall perform a field inspection of the grit system to evaluate the overall layout, determine operational parameters, review the condition of the existing channels, verify the depth and width of each chamber and perform a cursory review of the electrical controls. In addition, the Engineer shall discuss with the plant operators how the original system was intended to be operated as well as discuss any deficiencies with the existing design that was noted when the system was fully operable.

3. The Engineer shall provide the City with recommendations on the rehabilitation of the grit system. The intent is to determine what equipment is available that can utilize the existing influent structure and that is capable of achieving the desired removal results for the WWTP. The Engineer shall also prepare an Opinion of Probable Costs for these recommended improvements. After discussions with engineering staff and plant operators, the Engineer shall proceed with the Final Design Phase services as directed by the City.

Final Design Plans & Specifications

1. The Engineer shall prepare the design plans in accordance with the recommendations made to the City and per the Preliminary Evaluation listed above.

2. The Engineer's design services shall include the necessary civil, mechanical, and electrical drawings required for the grit system rehabilitation.

3. The Engineer shall conduct a 90% plan review with the City for comments and recommendations prior to the Engineer completing the final construction plans and specifications.

4. The Engineer shall prepare the final design plans incorporating the results of all mutually agreed changes requested by the City.

5. The Engineer shall prepare the technical specifications for the project which shall include the detailed descriptions of the various items to be incorporated into the project along with the bid documents and construction contract.

6. The Engineer shall submit the final design plans, specifications and bid documents to the City for review and acceptance.

Bidding and Construction Phase

1. The Engineer shall provide the City with the bid advertisement, assist with plan/specification copies for contractors, prepare any necessary addenda and provide a tabulated summary of the bids received.

2. The Engineer shall review the bids and prepare a written recommendation to the City.

3. The Engineer shall assist the City with contract award.

4. The Engineer shall assist the City in conducting a pre-construction conference with the Contractor detailing the various aspects of the project and contract requirements.

5. The Engineer shall review any material submitted by the Contractor in accordance with the technical specification that is to be incorporated into the project.

6. The Engineer shall review and recommend monthly pay requests submitted by the contractor. Each pay request shall be forwarded to the City for payment.

7. The Engineer shall make periodic inspections of the work to verify that the project is being constructed in accordance with the Plans, Specifications and Contract Documents.

8. The Engineer shall prepare any change order that affects the project. Change orders that alter the Scope of Work shall be considered as additional work and the Engineer shall be compensated at the hourly rate specified in said contract. All change orders shall be approved by the City prior to issuance to the Contractor.

9. The Engineer shall assist the City with final inspection and project closeout.

Exhibit B
Payment Terms and Schedule

Compensation for services shall be as outlined below:

Lump Sum Services		
Preliminary Evaluation		$ 30,000
Final Design Plans & Specifications		$ 109,000
	Subtotal	$ 139,000
Time and Materials Services (hourly, rate schedule attached)		
Bidding and Construction Phase Services		
	Subtotal	$ 7,500 (Not to Exceed)

Unless amended by a duly authorized written change order, the total payment for all invoices on this job, including both salary and non-salary expenses, shall not exceed the amount set forth in paragraph 2.01 of this Contract **($146,500**).

The Consultant must submit ***monthly*** invoices to the City, accompanied by an explanation of charges, professional fees, services, and expenses. The City will pay such invoices according to its normal payment procedures.

Exhibit C
Insurance Requirements

During the term of this Contract all Consultants' insurance policies shall meet the following requirements:

I. Standard Insurance Policies Required:

A. Commercial General Liability
B. Business Automobile Liability
C. Workers' Compensation
D. Professional Liability

II. For each of these policies, the Consultant's insurance coverage shall be primary insurance with respect to the City, its officials, agents, employees and volunteers. Any self-insurance or insurance policies maintained by the City, its officials, agents, employees or volunteers, shall be considered in excess of the Consultant's insurance and shall not contribute to it. No term or provision of the indemnification provided by the Consultant to the City pursuant to this Contract shall be construed or interpreted as limiting or otherwise affecting the terms of the insurance coverage. All Certificates of Insurance and endorsements shall be furnished to the City's Representative at the time of execution of this Contract, attached hereto as **Exhibit D,** and approved by the City before any letter of authorization to commence planning will issue or any work on the Project commences.

III. General Requirements Applicable to All Policies

A. Only insurance carriers licensed and authorized to do business in the State of Texas will be accepted.
B. Deductibles shall be listed on the Certificate of Insurance.
C. "Claims made" policies will not be accepted, except for Professional Liability insurance.
D. Coverage shall not be suspended, voided, canceled, or reduced in coverage or in limits except after thirty (30) calendar days prior written notice has been given to the City of Nacogdoches.
E. The Certificates of Insurance shall be prepared and executed by the insurance company or its authorized agent on the most current State of Texas Department of Insurance-approved forms.
F. The City of Nacogdoches, its officials, employees and volunteers, are to be named as "Additional Insured" to the Commercial General, Umbrella and Business Automobile Liability policies. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officials, employees or volunteers.
G. Waiver of subrogation in a form at least as broad as ISO form 2404 shall be provided in favor of the City on all policies obtained by the Contractor in compliance with the terms of this Agreement.

IV. Commercial (General) Liability requirements:

A. Coverage shall be written by a carrier rated "A:VIII" or better in accordance with the current A. M. Best Key Rating Guide.
B. Minimum Limit of $1,000,000 per occurrence for bodily injury and property damage with a $2,000,000 annual aggregate.
C. No coverage shall be excluded from the standard policy without notification of individual exclusions being attached for review and acceptance.
D. The coverage shall not exclude premises/operations; independent contracts, products/completed operations, contractual liability (insuring the indemnity provided herein), and where exposures exist, Explosion Collapse and Underground coverage.
E. The City shall be included as an additional insured and the policy shall be endorsed to waive subrogation and to be primary and non-contributory.

V. Business Automobile Liability requirements:

A. Coverage shall be written by a carrier rated "A:VIII" or better in accordance with the current. A. M. Best Key Rating Guide.
B. Minimum Combined Single Limit of $1,000,000 per occurrence for bodily injury and property damage.
C. The Business Auto Policy must show Symbol 1 in the Covered Autos portion of the liability section in Item 2 of the declarations page.
D. The coverage shall include owned autos, leased or rented autos, non-owned autos, any autos and hired autos.

VI. The worker's compensation insurance requirements:

1. Employer's Liability shall be no less than the required statutory minimum limits for each accident, each disease and cover all employees of Consultant, the Consultant, and all employees of any and all subconsultants or subcontractors of Consultant providing services on the Project.

2. "Texas Waiver of Our Right to Recover From Others Endorsement, WC 42 03 04" shall be included in this policy.

3. Texas must appear in Item 3A of the Workers Compensation coverage or Item 3C must contain the following: All States except those listed in Item 3A and the States of NV, ND, OH, WA, WV, and WY.

VII. Professional Liability requirements:

A. Coverage shall be written by a carrier rated "A:VIII" or better in accordance with the current A.M. Best Key Rating Guide.
B. Minimum of $1,000,000 per claim and $2,000,000 aggregate, with a maximum deductible of $100,000.00. Financial statements shall be furnished to the City of Nacogdoches when requested.

C. Policy must include availability of a two-year extended reporting period.
D. Retroactive date must be shown on certificate.

Exhibit D
Certificates of Insurance

PRESENTER: Jason Vickery, Assistant City Engineer

ITEM/SUBJECT: Consider and approve the rejection of bids received for the CDBG MLK Waterline Construction Project (Assistant Director of Public Works/Assistant City Engineer)

SUMMARY/BACKGROUND: On April 1, 2025, the City received bids for the Community Development Block Grant (CDBG) MLK Waterline Construction Project. Six (6) contractors submitted bids as follows:

McKinney & Moore of Texas, LLC	$ 394,962.53
S-Co Incorporated	$ 448,077.50
John Wright Construction, Inc.	$ 480,749.85
Duplichain Contractors, LLC	$ 491,807.00
Horton Excavating	$ 518,185.00
Capital Underground Utilities, LLC	$ 556,120.00

McKinney & Moore of Texas, LLC was found to be the low bidder; however, our design consultant missed a step in the grant requirements that requires a 10-day call to confirm the prevailing wage decision during the bidding process. It is a procedural step in the grant policies that requires a review to be done 10 days before the bid opening between the Texas Department of Agriculture (TDA) and the Department of Labor. Consequently, the city has to officially reject the bids before we can rebid. Staff recommends dismissing all bids received for this solicitation. The 10-day call to confirm the prevailing wage decisions can take place during the standard notification timeline, which is a public notification at least once a week for two consecutive weeks in a newspaper of general circulation, with the first publication at least 14 days before the bid opening timeframe. Staff, along with our design consultant and our grant consultant, have met to ensure the City is following all the grant procedural bid processes in order to rebid and receive bids that meet all the grant requirements.

FINANCIAL:
No financial impact associated with this item

COUNCIL PRIORITIES: THIS AGENDA ITEM IS CONSISTENT WITH THE FOLLOWING CITY COUNCIL PRIORITIES
Infrastructure

CITY CONTACT: Jason Vickery, PE
Asst. Dir. PW/Asst. City Engineer
vickeryj@nactx.us
(936) 559-2518

ATTACHMENTS:

PRESENTER:

ITEM/SUBJECT: Consider Resolution No. 1390-04-25 authorizing the application submission for Grant No. CRC23-0543 through the Texas Community Development Block Grant program and the Texas Department of Agriculture, Rural Economic Development Fund. (Executive Director of Development & Infrastructure)

SUMMARY/BACKGROUND: The proposed resolution will support the City's application to utilize existing funds retained from previous Texas Department of Agriculture (TDA) Revolving Loan Fund payments toward capital improvements under Texas Community Development Block Grant (TxCDBG) No. CRC23-0543. Proposed projects include the construction of sidewalks along certain portions of Martin Luther King Jr. Boulevard (S. University Drive to Shawnee Street), the construction of sidewalks along certain portions of Park Street (University Drive to Summit Street and Tower Road to Hope Lane), and a new restroom facility at Pioneer Park. Funds will be used in accordance with all applicable federal, state, local, and programmatic criteria as directed by TDA.

In 2017, TDA authorized the City to convert the use of its remaining Revolving Loan Fund assets, which totaled approximately $1,167,000 at the time, from an economic development activity to a community development activity. The community development projects initially proposed were improvements to Pioneer Park, construction of sidewalks along certain portions of University Drive, and construction of sidewalks along certain portions of Pearl Street. Sometime later, the sidewalk projects were modified to include certain portions of Martin Luther King Jr. Boulevard, certain portions of Park Street, and certain portions of West Starr Avenue.

In October 2018, the City contracted with KSA Engineers for professional services specific to the proposed sidewalk improvements. In January 2019, TDA approved the City's environmental assessments of the proposed park and sidewalk site locations, which authorized the City's use of funds for these projects. Sidewalk site plans were completed in August 2019, and probable cost estimates were updated in October 2024 to show $647,123 for Park Street sidewalk construction and $193,456 for Martin Luther King Jr. Boulevard sidewalk construction, not including contingencies.

In June 2019, the City contracted with Curtis Architecture for professional services specific to park restroom facility design and site planning. Plans were completed in September 2022, and restroom facility construction was approved for Pecan Park, Maroney Park, Festival Park, and Pilgrim's Sportsplex. All construction costs for these park restrooms, which totaled approximately $990,000, or roughly $247,500 per facility, were funded by the City's general fund. The City intends to use the same facility design for Pioneer Park restroom construction.

As of March 2025, the City's remaining Revolving Loan Fund assets total approximately $1,304,915.90 due to accruing interest. If authorized by TDA, the entirety of this amount will be committed to funding the construction of capital improvement projects proposed in the CRC23-

0543 grant application.

Prior to the City's submission of the CRC23-0543 grant application to TDA, the complete application must be available for public review for no less than five (5) days after the local resolution is passed, after the notice of availability, and prior to the application submittal deadline of April 30, 2025.

FINANCIAL:
No financial impact associated with this item

COUNCIL PRIORITIES: THIS AGENDA ITEM IS CONSISTENT WITH THE FOLLOWING CITY COUNCIL PRIORITIES
Infrastructure

CITY CONTACT: Mike Neu, Executive Director of Development and Infrastructure
neum@nactx.us
(936) 559-2522

ATTACHMENTS: 1. CDBG Resolution No. 1390-04-25

RESOLUTION NO. 1390-04-25

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF NACOGDOCHES, TEXAS AUTHORIZING THE SUBMISSION OF A TEXAS COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM APPLICATION TO THE TEXAS DEPARTMENT OF AGRICULTURE FOR THE RURAL ECONOMIC DEVELOPMENT FUND; AND AUTHORIZING THE EXECUTIVE DIRECTOR OF DEVELOPMENT AND INFRASTRUCTURE AND/OR THE ACCOUNTING MANAGER TO ACT AS THE CITY'S EXECUTIVE OFFICER AND AUTHORIZED REPRESENTATIVE IN ALL MATTERS PERTAINING TO THE CITY'S PARTICIPATION IN GRANT NO. CRC23-0543 OF THE TEXAS COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM.

WHEREAS, the City Council of the City of Nacogdoches (City) desires to develop a viable community, including decent housing and a suitable living environment and expanding economic opportunities, principally for persons of low-to-moderate income; and

WHEREAS, it is necessary and in the best interests of the City to apply for and receive funding under the Texas Community Development Block Grant (TxCDBG) Program; and

WHEREAS, the Texas Department of Agriculture notified the City that the Revolving Loan Fund payments may be retained by the City and applied to Grant No. CRC23-0543; and

WHEREAS, the City, in consideration by the Texas Department of Agriculture for authorization to use applied funding, is committed to compliance with federal, state, and TxCDBG program rules and regulations.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NACOGDOCHES, TEXAS:

SECTION 1. That a TxCDBG program application for the Rural Economic Development Fund is hereby authorized to be filed on behalf of the City with the Texas Department of Agriculture.

SECTION 2. That the City is committing to provide $1,304,915.90 in matching funds toward TxCDBG program activities specific to the application for Grant No. CRC23-0543, of which $1,304,915.90 will be provided through Revolving Loan Fund program income.

SECTION 3. That provided funds will be used in accordance with all applicable federal, state, local and programmatic requirements, including but not limited to, procurement, environmental review, labor standards, real property acquisition, and civil rights requirements.

SECTION 4. That the City Council directs and designates the following to act in all matters in connection with this application and the City's participation in the TxCDBG program:

- The Executive Director of Development and Infrastructure and/or the Accounting Manager shall serve as the City's Chief Executive Officer and Authorized Representative to execute this application and any subsequent contractual documents; and

- The Executive Director of Development and Infrastructure and/or the Accounting Manager is authorized to execute environmental review documents between the Texas Department of Agriculture and the City; and

- If this application is funded, the Executive Director of Development and Infrastructure and/or the Accounting Manager is authorized to execute the Request for Payment Form documents and/or other forms required for requesting funds specific to project costs.

SECTION 5. The meeting at which this Resolution was approved was in all things conducted in compliance with the Texas Open Meetings Act, Texas Government Code, Chapter 551, and this Resolution shall be effective immediately upon its passage.

APPROVED AND ADOPTED at a regular meeting of the Nacogdoches City Council on this 15th day of April 2025.

CITY OF NACOGDOCHES

_____
Randy Johnson, Mayor

ATTEST:

_____
Rhonda Lewis, City Secretary

APPROVED AS TO FORM:

_____
Jerry Baker, City Attorney

PRESENTER: Michael Brown, Fire Chief

ITEM/SUBJECT: Consider approval of an amended purchase order with Siddons-Martin Emergency Group for replacement parts and/or repair of fire apparatus in the amount of $70,000. (Fire Chief)

SUMMARY/BACKGROUND: At or near the beginning of this fiscal year, a blanket purchase order was created for payment of projected expenses at Siddons-Martin Emergency Group for fleet fire apparatus replacement parts and/or repair. The original purchase order was in the amount of $40,000.00. Parts replacement and repair costs have exceeded the original amount of the purchase order, and it is predicted that costs for the remainder of the fiscal year will exceed $50,000.00. While the purchases and repairs at Siddons-Martin Group have been incurred individually and are considered to be competitively exempt, the year-end total payments to this provider will exceed $50,000.00. It is in the spirit of financial transparency that this item is brought forward for the awareness and approval of Council.

FINANCIAL:
Item is budgeted:
Account No.: 01.17.620.20
Account Name: Vehicle Maintenance
Amount: $70,000

COUNCIL PRIORITIES: THIS AGENDA ITEM IS CONSISTENT WITH THE FOLLOWING CITY COUNCIL PRIORITIES

CITY CONTACT: Mike Brown, Fire Chief
brownm@nactx.us
(936) 559-2541

ATTACHMENTS:

City Council Meeting

Date: April 15, 2025

Agenda Item: 5.E.

PRESENTER:

ITEM/SUBJECT: Consider approval of minutes for the April 1, 2025, City Council Work Session and the April 1, 2025, City Council Regular Meeting. (City Secretary)

SUMMARY/BACKGROUND:

FINANCIAL:

COUNCIL PRIORITIES: THIS AGENDA ITEM IS CONSISTENT WITH THE FOLLOWING CITY COUNCIL PRIORITIES

CITY CONTACT: Rhonda Lewis, City Secretary
lewisr@nactx.us
(936) 559-2506

ATTACHMENTS:
1. City Council Work Session Noise Ordinance Minutes 04.01.25
2. City Council Meeting Minutes 04.01.25

Work Session – Noise Ordinance Amendments
Nacogdoches City Council
April 1, 2025 – 4:00 p.m.
City Council Chambers
202 E. Pilar Street, Nacogdoches, TX

City Council present: Mayor Randy Johnson; Council Members Kathleen Belanger**;** Blane Williams; Brad Maule; and Chad Huckaby

1. City Council Work Session on The City of Nacogdoches' Noise Ordinances - Called to order at 4:00 p.m.

2. Pledge of Allegiance.

3. Open Forum:

There were no comments in Open Forum for the Work Session.

4. **WORK SESSION: NOISE ORDINANCE AMENDMENTS**

Jerry Baker, City Attorney, came before the City Council and presented this work session for their consideration. He distinguished between Chapters 34 and 118 and moved forward with a discussion on possibly revising and amending the ordinances brought before them. Mr. Baker presented proposed amendments to the Chapters, and also other revisions that would reference new sections to the noise ordinance.

He described the removal of section 118-504 and relocating the sections under Chapter 34, which was the most significant change to expect to the ordinance. He also discussed the addition of section 34-158, which incorporated provisions that are currently in section 118-504, moving under Chapter 34. Additionally, a new section would retain the decibel levels that are currently stated in 118-50.

Mr. Baker stated that Section 34-158 incorporates and amends noise measurement processes that were outlined in Section 118-504. These amendments would add decibel levels for non-residential areas and add requirements for measuring decibel levels with sound meters.

Mayor Johnson asked if concert sound levels and permits would be considered. Mr. Baker answered yes, that there would be opportunities to apply for a permit at that level.

Councilwoman Belanger asked if the NPD would have more authority to enforce the regulations on noise using the new decibel tool. Chief Weems approached and informed Council that the clarification of the ordinances would certainly help with enforcement.

Councilman Maule asked if locations such as fraternity houses in residential areas would be held to the decibel level guidelines. Mr. Baker answered yes.

12. **ADJOURNED:** 5:05 p.m.

A full recording of the City Council Work Session on Noise Ordinance Amendments for April 1, 2025, may be viewed here: City Council Work Session - Noise Ordinance Amendments

_____
Randy Johnson, Mayor
City Council
City of Nacogdoches

ATTEST:

_____
Rhonda Lewis, City Secretary

Regular Session
Nacogdoches City Council
April 1, 2025 – 5:30 p.m.
City Council Chambers
202 E. Pilar Street, Nacogdoches, TX

City Council present: Mayor Randy Johnson; Council Members, Kathleen Belanger**;** Blane Williams; Brad Maule; and Chad Huckaby

1. Called to order at 5:30 p.m.

2. Pledge of Allegiance.

3. Open Forum:

Ben Lackey addressed Council regarding the subject of cybersecurity and how the City of Nacogdoches can protect against cyber-crimes.

4. **ITEMS TO BE REMOVED FROM THE CONSENT AGENDA:**

Councilwoman Belanger asked to remove Item 5.B. from the Consent Agenda.

5. **CONSENT AGENDA:**

Councilman Huckaby made a motion to approve the balance of the Consent Agenda. Councilman Maule duly seconded the motion, and the approval of the balance of the Consent Agenda carried unanimously.

5.B. Consider approval of a resolution of support for Community Project Funding requests in federal appropriations bills for the upcoming fiscal year 2026.

Mike Neu, Executive Director of Development and Infrastructure, stated that this resolution of support is for two local projects, the storm drainage improvements and potential funding for a parking garage.

Councilwoman Belanger made a motion to approve Item 5.B. as outlined. Councilman Williams duly seconded the motion and the motion carried unanimously.

6. **REGULAR AGENDA:**

A. Consider acceptance of the Fiscal Year 2025 Solid Waste Rate Study results and recommendations prepared by NewGen Strategies and Solutions LLC.

Matthew Garrett of NewGen Strategies asked Council to consider approval of the FY2025 Solid Waste Rate Study, which was heard and approved by the Capital Needs Advisory Committee. Mr. Garrett presented rate study results and recommendations for the City.

Councilman Huckaby mentioned that the CNAC team recommended that the City meet expenses sooner rather than later, and that NewGen did make those adjustments.

Councilman Maule made a motion to accept the FY2025 Solid Waste Rate Study results. Councilman Huckaby duly seconded the motion and the motion carried unanimously.

B. Discuss and consider a contract by and between Brown Reynolds Watford Architects, Inc. (BRW) and the City of Nacogdoches, to provide professional architectural and engineering services for the design and construction of three (3) fire stations for a total amount of $1,792,500.00.

Mike Brown, Fire Chief, stated that his item would move the projects forward for the fire station design, professional architecture, and engineering services for construction of three (3) new fire

stations. Chief Brown asked Council to approve the final contract, which was already approved by Administration and Legal staff.

Councilman Huckaby moved to approve the contract. Mayor Johnson duly seconded the motion, and the motion carried unanimously.

C. Discuss and consider a contract with HGT Group, LP, for the purchase of real property to be utilized for the construction of a new fire station.

Mike Brown, Fire Chief, brought this contract before Council for approval for the purchase of three (3) acres of land on the southwest section of the City.

Councilman Huckaby made a motion to approve Item 6.C. Councilman Maule duly seconded the motion and the motion carried unanimously.

D. Consider approval of an ordinance of the City of Nacogdoches, Texas, Amending Chapter 98 – “Telecommunications”, Article II. - "Use of Rights-of-Way", Division 1. - "Generally", of the Code of Ordinances of the City of Nacogdoches, Texas; Providing a Severability Clause; Providing a Continuation Clause; Providing a Repeal Clause; and Providing an Effective Date

Jerry Baker, City Attorney, presented this item to Council for amendments to Chapter 98 in regard to adding sections to the Chapter. He stated that the amendments here were to address the issues with the locations of some telecommunications utilities in public rights-of-way and installation. Mr. Baker stated that there were some added definitions to aid with enforcement.

Councilwoman Belanger made a motion to approve Item 6.D. of the agenda. Councilman Maule duly seconded the motion, and the motion carried unanimously.

7. **EXECUTIVE SESSION:**

Council concluded the regular agenda and convened in Executive Session at 6:25 p.m.

Council reconvened in regular session at 6:49 p.m. with no action taken

8. **ADJOURNED:** 6:50 p.m.

A full recording of the Regular City Council Meeting for April 1, 2025, may be viewed here:
Regular City Council Meeting - 20250401

_____
Randy Johnson, Mayor
City Council
City of Nacogdoches

ATTEST:

_____
Rhonda Lewis, City Secretary

PRESENTER: Jerry Baker, City Attorney

ITEM/SUBJECT: Consider approval of an Interlocal Agreement between the City of Nacogdoches, Nacogdoches County, and Nacogdoches Independent School District for for Sale of Tax-Foreclosed Properties (City Attorney)

SUMMARY/BACKGROUND: The City of Nacogdoches has requested that the Nacogdoches Independent School District and Nacogdoches County enter into an Interlocal Agreement related to the sale of tax foreclosed properties "struck-off" to the City of Nacogdoches, as Trustee, pursuant to Texas Property Tax Code §34.05. The purpose of this agreement is to use tax-delinquent properties for property sales within the City of Nacogdoches in compliance with Texas Tax Code §34.05. The properties that are subject to this Agreement will then be used for a purpose consistent with the City's affordable housing/neighborhood revitalization plan.

At a tax foreclosure sale, often properties that do not sell are "struck-off" to a taxing jurisdiction as Trustee. Currently, Nacogdoches ISD is the default Trustee for properties struck off within the district. Under the Agreement, the City of Nacogdoches will take all right, title, and interest in each property as Trustee, for properties that lie within the city limits of Nacogdoches and for which no bid was received from the public at a tax foreclosure sale. The deed by the City pursuant to such a sale shall convey all rights, title, and interest acquired by each taxing unit, subject to any right of redemption, and shall restrict the tax-foreclosed property be used in a manner consistent with the City's revitalization plan.

The City shall select the properties that will be considered for sale and notify Nacogdoches ISD and Nacogdoches County of its intent to sell each property pursuant to the Agreement. Pursuant to this Agreement, all parties agree, the properties can be sold for less than the market value specified in the Judgment or less than the total amount of the Judgment against the property.

FINANCIAL:
No financial impact associated with this item

COUNCIL PRIORITIES: THIS AGENDA ITEM IS CONSISTENT WITH THE FOLLOWING CITY COUNCIL PRIORITIES
Neighborhood Revitalization and Attainable Housing

CITY CONTACT: Jerry Baker, City Attorney
(936) 559-2503
bakerj@nactx.us

ATTACHMENTS: 1. ILA City of Nacogdoches_Sec 34.05

STATE OF TEXAS	**§**	**INTERLOCAL AGREEMENT FOR SALE OF**
	§	**TAX-FORECLOSED PROPERTIES**
COUNTY OF NACOGDOCHES	**§**	

This Interlocal Agreement for Sale of Tax-Foreclosed Properties ("Agreement") is entered into this ____ day of _____, 2025, between the City of Nacogdoches, Texas (the "City"), a home-rule municipal corporation of the State of Texas, principally situated in Nacogdoches County, Texas; the County of Nacogdoches, a political subdivision of the State of Texas, on its own behalf and on behalf of other political subdivisions, Nacogdoches County Hospital District, whose taxes are collected by the Nacogdoches Central Appraisal District; and the Nacogdoches Independent School District ("NISD") an independent district and political subdivision organized under the laws of the State of Texas. Each party may be referred to individually as "Party" or jointly as "Parties."

RECITALS

WHEREAS, Texas Government Code Chapter 791 (Interlocal Cooperation Act) authorizes local governments to contract with one another to perform governmental functions under the terms of the act in order to increase their efficiency and effectiveness; and

WHEREAS, the Parties seek to work together in intergovernmental cooperation to return tax delinquent unproductive properties back to productive use and back to producing tax revenue; and

WHEREAS, Texas Tax Code Chapter 34 permits the foreclosure of a tax lien and sale of real property in order to collect delinquent taxes; and

WHEREAS, following the tax-foreclosure sale, certain properties remain unsold and Texas Tax Code §34.01(j)-(k) allows them to be struck off to the City on its behalf and/or on behalf of one or more of the other Parties to this Agreement; and

WHEREAS, such property has been struck off to the City, the City acts as Trustee for the other Parties having established a tax lien against the respective property; and

WHEREAS, Texas Tax Code §34.051 specifically authorizes the City to enter into an interlocal agreement with other taxing units to obtain consent to the terms and conditions governing the City's resale of certain tax-foreclosed properties for less than the market value specified in the judgment of foreclosure or less than the total amount of judgment against the property for the purpose stated herein; and

WHEREAS, the Parties desire to enter into this Agreement for the purpose of compliance with Texas Tax Code §34.051 that authorizes the Parties to enter into an in interlocal agreement governing the resale of certain tax-foreclosed properties; and

WHEREAS, the principal goal of this Agreement, pursuant to subsection (b)(4) of Texas Tax Code §34.051(the "Statute"), is to provide an efficient mechanism for returning deteriorated or unproductive properties to the tax rolls enhancing the value of ownership to surrounding properties and improving safety and quality of life in deteriorating neighborhoods; and

WHEREAS, the properties that are subject to this Agreement will be used for a purpose consistent with the City's urban revitalization plan or affordable housing policy, as applicable.

NOW THEREFORE, this Agreement for the sale of tax-foreclosed properties is hereby made and entered into by the Parties for the mutual promises and covenants contained herein:

1. Purpose and Incorporation of Recitals. The purpose of this Agreement is to use tax-delinquent properties to increase to volume of affordable housing within the City of Nacogdoches, Nacogdoches County, Texas, in compliance with Texas Tax Code §34.05 for the reasons set forth above. The Parties agree that the recitals above are true and correct and are hereby incorporated into the body of this Agreement as set forth fully herein.

2. Tax-Foreclosed Property or Properties. The Parties agree that the tax-foreclosed property or properties, ("Property" or "Properties," as appropriate), as used in this Agreement, means only those real properties where the City takes title as trustee taxing unit to the Property, and the Property is either vacant or distressed and has a tax delinquency of six years or more. The City shall submit to the Parties a proposed list of the Properties that the City intends to be subject to the terms of this Agreement.

3. Conveyance of Tax-Foreclosed Properties. By execution of this Agreement, the Parties hereby consent to the sale of Properties at less than the market value specified in the judgment of the foreclosure or less than the total amount of the judgment(s) against the Property in accordance with the Statute and this Agreement and authorize the City to convey the Property to the purchaser selected by the City as set forth in Paragraph 4 below. The deed by the City pursuant to such consent conveys all right, title, and interest acquired by each such taxing units, subject to any right of redemption, and shall restrict the Property to be used by the purchaser in a manner consistent with the City's plan.

4. Mechanism. The City shall select the tax-foreclosed properties that will be conveyed in accordance with the Statute and this Agreement and notify the other Parties of its Interlocal Agreement for Sale of Tax-Foreclosed Properties and the intent to sell each Property pursuant to this Agreement. City or its designee shall sell the Properties under the terms and conditions established by the City to a qualified buyer, a qualified non-profit or for-profit housing developer or to a qualified community development housing organization for development and construction of affordable houses on the selected Properties in accordance with the Statute and this Agreement. The Parties agree that any proceeds from the sale of each Property subject to this Agreement by the City shall be first paid to the City to reimburse its costs, if any, pursuant to Texas

Tax Code §34.06(c). After retaining the amounts authorized by this subsection, the proceeds of the sale, if any, shall be distributed pursuant to Texas Tax Code §34.06(d) and (e).

5. Period/Term and Termination. This Agreement shall become effective on the final date of execution, as indicated below, and shall be in effect for a period of five (5) years, and shall remain in effect until terminated by mutual consent of the Parties or by any Party for any reason with an effective written thirty (30) day notice to the other Parties. Upon termination, the City agrees to sell any Property that has not yet been sold by the City pursuant to this Agreement in compliance with Texas Tax Code §34.05.

6. Notice. Any notice required or permitted between the Parties under this Agreement must be in writing, addressed to the attention of each respective designated representative, and shall be delivered in person or sent by certified mail, return receipt requested, to the address set below for each Party.

To Nacogdoches:
Nacogdoches City Attorney
City of Nacogdoches
P.O. Box 635030
Nacogdoches, TX 75963

To Nacogdoches County:
Nacogdoches County Judge
101 W Main St, Ste 170
Nacogdoches, TX 75961

To Nacogdoches Independent School District:
Superintendent
Nacogdoches ISD
4632 NE Stallings Drive
Nacogdoches, Texas 75965

7. Indemnification. Parties agree that each shall be responsible for its own negligent acts or omissions or other tortious conduct in the course of performance of this Agreement, without waiving any governmental immunity available to Parties or their respective officials, officers, employees, or agents under Texas or other law and without waiving any available defenses under Texas or other law. Nothing in this paragraph shall be construed to create or grant any rights, contractual, or otherwise, in or to any third persons or entities.

8. Written Amendment. This Agreement may be amended only by the mutual written agreement of the Parties.

9. Severability. If any part of or provision contained in this Agreement is held to be invalid for any reason, such part shall be deemed severable and the remaining parts shall remain binding to their full force and effect as if the invalid provision was never included in the Agreement.

10. Validity and Enforceability. If any current or future legal limitations affect the validity or enforceability of a provision of this Agreement, then the legal limitations are made a part of this Agreement and shall operate to amend this Agreement to the minimum extent necessary to bring this Agreement into conformity with the requirements of the limitations, and so modified, this Agreement shall continue in full force and effect.

11. No Waiver of Immunity. No Party waives or relinquishes any immunity or defense on behalf of itself, its officers, employees, and/or agents as a result of its execution of this Agreement and performance of the terms contained herein.

12. Entire Agreement. This Agreement constitutes the entire agreement between the parties under Texas Tax Code §34.05, and any other prior understandings, or agreements, whether written or oral, between them are merged into this Agreement.

13. Governing Law and Venue. This Agreement and all of the rights and obligations of the Parties hereto and all of the terms and conditions hereof shall be construed, interpreted, and applied in accordance with and governed by and enforced under the laws of the State of Texas, and the Parties hereto agree that venue shall be in Nacogdoches County, Texas.

14. NEITHER THIS AGREEMENT, NOR ANY PART THEREOF, NOR ANY DISPUTE ARISING HEREINUNDER, IS SUBJECT TO ARBITRATION.

15. Headings. The headings of any section of this Agreement have be included for convenience only and are not to be used in the interpretation of any provision to enlarge or limit the terms thereof.

16. No Third-Party Beneficiaries. The terms and provisions of this Agreement are for the benefit of the Parties hereto and not for the benefit of any third party. It is the express intention of City, County, and NISD that any entity other than City, County, and NISD receiving services or benefits under this Agreement shall be deemed an incidental beneficiary only. This Agreement is intended only to set forth the contractual right and responsibilities of the parties hereto.

17. Assignment. This Agreement may not be assigned or transferred by the Parties without prior written consent of the other Parties.

18. Binding Agreement; Parties Bound. Upon execution by the Parties, this Agreement shall constitute a legal valid, and binding obligation of the Parties, their successors, and permitted assigns.

19. Authority. The undersigned represent that they have authority to sign this Agreement on behalf of their entity and that such binding authority has been granted by proper order, resolution, ordinance, or other authorization of the governing body of each Party.

20. Counterparts. This Agreement may be executed in counterparts, each taken together to represent the full and valid agreement of the Parties.

21. Effective Date. The Agreement shall commence on the Effective Date. The Effective Date of this Agreement shall be the date it is executed by the last of the parties. Reference to the date of execution shall mean the Effective Date.

22. No Joint Enterprise/Venture. The Parties agree that no Party is an agent, servant, or employee of the other Parties. The Parties, including their agents, servants, or employees, are independent contractors, and not an agent, servant, joint enterprise/venture, or employee of any other party, and are responsible for their own acts, forbearance, negligence, and deeds, and for those of their agents, servants, or employees in conjunction with this Agreement. No joint enterprise/venture exists between the Parties.

[Signatures on following page.]

STATE OF TEXAS	**§**	**INTERLOCAL AGREEMENT FOR SALE OF**
	§	**TAX-FORECLOSED PROPERTIES**
COUNTY OF NACOGDOCHES	**§**	

Executed this _____ day of _____, 2025, by the **City of Nacogdoches**, signing by and through its City Manager, duly authorized to execute same by City Resolution No. _____ on _____, 2025.

CITY OF NACOGDOCHES:

By: _____
Rick Beverlin, City Manager

APPROVED AS TO FORM:

By: _____
Jerry Baker, City Attorney

ATTESTED:

By: _____
City Secretary

STATE OF TEXAS	**§**	**INTERLOCAL AGREEMENT FOR SALE OF**
	§	**TAX-FORECLOSED PROPERTIES**
COUNTY OF NACOGDOCHES	**§**	

Executed this _____ day of _____, 2025, by the **County of Nacogdoches**, signing by and through its County Judge, duly authorized to execute same by Commissioners Court Order No. _____ on _____, 2025.

COUNTY OF NACOGDOCHES:

By: _____

Greg Sowell
Nacogdoches County Judge

***APPROVED AS TO FORM:**

By: _____
John Fleming
County Attorney

STATE OF TEXAS	**§**	**INTERLOCAL AGREEMENT FOR SALE OF**
	§	**TAX-FORECLOSED PROPERTIES**
COUNTY OF NACOGDOCHES	**§**	

Executed this _____ day of _____, 2025, by **Nacogdoches Independent School District**, signing by and through its Board President, duly authorized to execute same by Board Resolution No. _____ on _____, 2025.

NACOGDOCHES INDEPENDENT SCHOOL DISTRICT:

By: _____
Dr. Gabriel Trujillo, Superintendent

APPROVED AS TO FORM:

By: _____
Legal Counsel

ATTESTED:

By: _____
Secretary of the Board

PRESENTER: Case Opperman, Director of Public Works

ITEM/SUBJECT: Consider approval of a contract by and between the City of Nacogdoches and Capital Underground Utilities for the ARPA Collection System Improvements Project for a not-to-exceed amount of $1,305,902.00. (Director of Public Works/City Engineer)

SUMMARY/BACKGROUND: The City of Nacogdoches received $8,162,558 from the American Rescue Plan Act (ARPA) and $1,511,000 of that is budgeted toward sanitary sewer improvements. The City previously contracted with Schaumburg & Polk (SPI) for bidding and construction phase services on previously designed sanitary sewer line improvements, leaving $1,420,440 for construction of these lines. The base bid for this project is for a pipe bursting of approx. 4,400 linear feet of existing 6" sewer line with a new 8" sewer on North Street from Ellington Street to Austin Street. Three alternate bids were also included for pipe bursting additional locations (approx. 2,400 linear feet total) near Chestnut Street, Crestview Drive and Kent Street.

On March 27, 2025, the City received bids for this work. Six (6) contractors submitted bids, as follows:

Contractor	Base Bid	Alternate 1	Alternate 2	Alternate 3	Total
Capital Underground	$799,634.00	$192,034.00	$148,955.00	$165,279.00	$1,305,902.00
Texas Pride	$931,940.00	$218,862.00	$191,215.00	$221,947.00	$1,563,964.00
Renoworks	$939,906.90	$344,184.60	$322,860.00	$377,628.60	$1,984,580.10
Bull G Construction	$1,261,264.00	$213,506.00	$147,700.00	$168,761.00	$1,791,231.00
Horseshoe Const.	$1,761,295.00	$332,398.00	$249,285.00	$274,363.00	$2,617,341.00
John Wright Const.	$1,951,778.00	$502,704.00	$478,280.00	$583,824.00	$3,516,586.00

Capital Underground Utilities was found to be the lowest bidder. They are a Houston-based contractor who has not worked for the City in the past. Our engineering consultant on this project, SPI, has reviewed their qualifications and recommends an award for this project for the base bid and all alternatives in the total amount of $1,305,902.00. There is an adequate budget available for this contract from ARPA funds.

FINANCIAL:
Item is budgeted:
Account No.: 30.39 680.96
Account Name: *Wastewater Treatment - ARPA*
Amount: $ 1,305,902.00

COUNCIL PRIORITIES: THIS AGENDA ITEM IS CONSISTENT WITH THE FOLLOWING CITY COUNCIL PRIORITIES

Infrastructure

CITY CONTACT: Case Opperman, PE – Director of Public Works/City Engineer
oppermanc@nactx.us
(936) 559-2515

ATTACHMENTS:

1. SPI Recommendation of Award
2. Bid Tab
3. Contract Documents

SCHAUMBURG & POLK, INC.
ENGINEERING A BETTER FUTURE

April 1, 2025

City Council
City of Nacogdoches
202 E. Pilar
Nacogdoches, TX, 75961

Re: Recommendation of Award for the "ARPA Collection System Improvements"

As you are aware, bids for the above-referenced project were solicited and opened on Thursday, March 27, 2025. A total of six bids were received and are summarized below. A complete bid tabulation is also attached. This project generally consists of sanitary sewer line improvements along North St. as well as three other locations that were bid as alternates.

Contractor	Base Bid	Alternate 1	Alternate 2	Alternate 3	Total
Capital Underground Utilities	$ 799,634.00	$ 192,034.00	$ 148,955.00	$ 165,279.00	$ 1,305,902.00
Texas Pride Utilities	$ 931,940.00	$ 218,862.00	$ 191,215.00	$ 221,947.00	$ 1,563,964.00
Renoworks LLC	$ 939,906.90	$ 344,184.60	$ 322,860.00	$ 377,628.60	$ 1,984,580.10
Bull G Construction	$ 1,261,264.00	$ 213,506.00	$ 147,700.00	$ 168,761.00	$ 1,791,231.00
Horseshoe Construction	$ 1,761,295.00	$ 332,398.00	$ 249,285.00	$ 274,363.00	$ 2,617,341.00
John Wright Construction	$ 1,951,778.00	$ 502,704.00	$ 478,280.00	$ 583,824.00	$ 3,516,586.00

The lowest bidder for the project is:

Capital Underground Utilities
918 Tassell St.
Houston, TX 77076
281-827-2133
email: hl_capitalunderground@yahoo.com

Our office has reviewed the qualifications of Capital Underground Utilities. Based on these qualifications, it is the recommendation of Schaumburg & Polk, Inc. that the City of Nacogdoches, award the ARPA Collection System Improvements for the total project amount of $1,305,902.00. This amount includes the base bid as well as the three alternate bids.

Sincerely,
Schaumburg & Polk, Inc.

Travis Reed

Travis Reed, P.E.
Project Manager

City of Nacogdoches Texas
ARPA Collection System Improvements
March 27, 2025 at 2:00pm - City Hall - 202 E. Pilar, Nacogdoches, TX 75961

Base Bid - Segment 31				Capital Underground Utilities		Texas Pride Utilities		Renoworks LLC		Bull G Construction		Horseshoe Construction		John Wright Construction	
Bid No.	Quantity	Unit	Item Description	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
1	1	LS	Mobilization, Bonds & Insurance	$ 45,000.00	$ 45,000.00	$ 50,000.00	$ 50,000.00	$ 4,050.00	$ 4,050.00	$ 40,000.00	$ 40,000.00	$ 75,000.00	$ 75,000.00	$ 150,000.00	$ 150,000.00
2	1	LS	TRAFFIC CONTROL	35,000.00	35,000.00	46,000.00	46,000.00	3,240.00	3,240.00	50,000.00	50,000.00	250,000.00	250,000.00	80,000.00	80,000.00
3	1	LS	CONSTRUCTION STAKING	7,500.00	7,500.00	1,000.00	1,000.00	3,600.00	3,600.00	5,000.00	5,000.00	100.00	100.00	5,000.00	5,000.00
4	1	LS	EROSION CONTROL	2,500.00	2,500.00	1,000.00	1,000.00	2,250.00	2,250.00	2,000.00	2,000.00	200.00	200.00	15,000.00	15,000.00
5	1	LS	UTILITY LOCATES	2,500.00	2,500.00	20,000.00	20,000.00	6,300.00	6,300.00	10,000.00	10,000.00	1,000.00	1,000.00	80,000.00	80,000.00
6	4,384	LF	PRE CONSTRUCTION TV INSPECTION	6.00	26,304.00	4.00	17,536.00	9.00	39,456.00	6.00	26,304.00	15.00	65,760.00	15.00	65,760.00
7	1	LS	BYPASS PUMPING	25,500.00	25,500.00	38,000.00	38,000.00	22,500.00	22,500.00	10,000.00	10,000.00	100.00	100.00	110,000.00	110,000.00
8	4,384	LF	PIPE BURST EXISTING 6" SANITARY SEWER LINE WITH NEW 8" SANNITARY SEWER LINE	42.00	184,128.00	54.00	236,736.00	53.10	232,790.40	60.00	263,040.00	135.00	591,840.00	120.00	526,080.00
9	1	EA	NEW 4' DIA. CONCRETE MANHOLE	10,500.00	10,500.00	8,000.00	8,000.00	12,600.00	12,600.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
10	16	EA	REMOVE EXISTING CONCRETE MANHOLE AND REPLACE WITH NEW 4' DIA. CONCRETE MANHOLE	10,500.00	168,000.00	9,000.00	144,000.00	14,017.50	224,280.00	10,000.00	160,000.00	10,000.00	160,000.00	16,000.00	256,000.00
11	20	LF	REMOVE EXISTING STEEL LINE AND REPLACE WITH 8" D2241 PR 160 SDR-26 PVC IN 14" STEEL CASING	720.00	14,400.00	500.00	10,000.00	990.00	19,800.00	6,000.00	6,000.00	1,200.00	24,000.00	400.00	8,000.00
12	80	EA	SANITARY SEWER RECONNECT	1,250.00	100,000.00	1,800.00	144,000.00	1,597.50	127,800.00	5,000.00	400,000.00	2,500.00	200,000.00	5,000.00	400,000.00
13	835	SY	REPAIR OF HMAC PAVEMENT	90.00	75,150.00	140.00	116,900.00	157.50	131,512.50	200.00	167,000.00	325.00	271,375.00	150.00	125,250.00
14	4,384	LF	POST CONSTRUCTION TV INSPECTION	3.00	13,152.00	2.00	8,768.00	4.50	19,728.00	5.00	21,920.00	5.00	21,920.00	7.00	30,688.00
15	1	LS	OWNER'S ALLOWANCE FOR MATERIALS TESTING	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00
16	1	LS	OWNER'S ALLOWANCE FOR FIELD CHANGES	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00
Total Base Bid (Items 1 - 16):					$ 799,634.00		$ 931,940.00		$ 939,906.90		$ 1,261,264.00		$ 1,761,295.00		$ 1,951,778.00

Alternate Bid 1 - Segment 19				Capital Underground Utilities		Texas Pride Utilities		Renoworks LLC		Bull G Construction		Horseshoe Construction		John Wright Construction	
Bid No.	Quantity	Unit	Item Description	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
1	1	LS	Mobilization, Bonds & Insurance	$ 12,500.00	$ 12,500.00	$ 10,000.00	$ 10,000.00	$ 4,500.00	$ 4,500.00	$ 3,000.00	$ 3,000.00	$ 15,000.00	$ 15,000.00	$ 50,000.00	$ 50,000.00
2	1	LS	TRAFFIC CONTROL	1,200.00	1,200.00	2,000.00	2,000.00	6,480.00	6,480.00	800.00	800.00	1,000.00	1,000.00	20,000.00	20,000.00
3	1	LS	CONSTRUCTION STAKING	1,000.00	1,000.00	1,000.00	1,000.00	2,250.00	2,250.00	966.00	966.00	100.00	100.00	5,000.00	5,000.00
4	1	LS	EROSION CONTROL	1,200.00	1,200.00	1,000.00	1,000.00	3,600.00	3,600.00	2,000.00	2,000.00	100.00	100.00	5,000.00	5,000.00
5	1	LS	UTILITY LOCATES	1,200.00	1,200.00	1,000.00	1,000.00	6,300.00	6,300.00	500.00	500.00	500.00	500.00	25,000.00	25,000.00
6	966	LS	PRE CONSTRUCTION TV INSPECTION	4.00	3,864.00	3.00	2,898.00	9.00	8,694.00	5.00	4,830.00	5.00	4,830.00	12.00	11,592.00
7	0.28	AC	SITE CLEARING AND GRUBBING	7,500.00	2,100.00	10,000.00	2,800.00	24,300.00	6,804.00	10,000.00	2,800.00	10,000.00	2,800.00	20,000.00	5,600.00
8	1	STA	SURFACE WATER MANAGEMENT	2,500.00	2,500.00	4,000.00	4,000.00	36,000.00	36,000.00	4,000.00	4,000.00	10,000.00	10,000.00	10,000.00	10,000.00
9	1	STA	DESIGN INSTALLATIN AND OPERATION OF WELL POITN SYSTEM	7,500.00	7,500.00	1,000.00	1,000.00	49,500.00	49,500.00	28,980.00	28,980.00	20,000.00	20,000.00	15,000.00	15,000.00
10	1	LS	BYPASS PUMPING	4,500.00	4,500.00	16,000.00	16,000.00	24,300.00	24,300.00	2,000.00	2,000.00	100.00	100.00	25,000.00	25,000.00
11	966	LF	PIPE BURST EXISTING 6" SANITARY SEWER LINE WITH NEW 8" SANNITARY SEWER LINE	42.00	40,572.00	52.00	50,232.00	53.10	51,294.60	50.00	48,300.00	145.00	140,070.00	120.00	115,920.00
12	1	EA	NEW 4' DIA. CONCRETE MANHOLE	10,500.00	10,500.00	8,000.00	8,000.00	12,600.00	12,600.00	6,000.00	6,000.00	10,000.00	10,000.00	10,000.00	10,000.00
13	3	EA	REMOVE EXISTING CONCRETE MANHOLE AND REPLACE WITH NEW 4' DIA. CONCRETE MANHOLE	10,500.00	31,500.00	9,000.00	27,000.00	14,017.50	42,052.50	6,000.00	18,000.00	10,000.00	30,000.00	16,000.00	48,000.00
14	15	EA	SANITARY SEWER RECONNECT	2,100.00	31,500.00	1,600.00	24,000.00	1,597.50	23,962.50	3,500.00	52,500.00	4,000.00	60,000.00	5,000.00	75,000.00
15	1	EA	REMOVE AND REPLACE AERIAL CREEK CROSSING	7,500.00	7,500.00	36,000.00	36,000.00	31,500.00	31,500.00	4,000.00	4,000.00	5,000.00	5,000.00	40,000.00	40,000.00
16	966	LF	POST CONSTRUCTION TV INSPECTION	3.00	2,898.00	2.00	1,932.00	4.50	4,347.00	5.00	4,830.00	3.00	2,898.00	12.00	11,592.00
17	1	LS	OWNER'S ALLOWANCE FOR MATERIALS TESTING	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
18	1	LS	OWNER'S ALLOWANCE FOR FIELD CHANGES	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00
Total Alternate Bid 1 (Items 1 - 18):					$ 192,034.00		$ 218,862.00		$ 344,184.60		$ 213,506.00		$ 332,398.00		$ 502,704.00

Alternate Bid 2 - Segment 20				Capital Underground Utilities		Texas Pride Utilities		Renoworks LLC		Bull G Construction		Horseshoe Construction		John Wright Construction	
Bid No.	Quantity	Unit	Item Description	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
1	1	LS	Mobilization, Bonds & Insurance	$ 7,800.00	$ 7,800.00	$ 10,000.00	$ 10,000.00	$ 4,500.00	$ 4,500.00	$ 3,000.00	$ 3,000.00	$ 10,000.00	$ 10,000.00	$ 30,000.00	$ 30,000.00
2	1	LS	TRAFFIC CONTROL	1,450.00	1,450.00	1,000.00	1,000.00	3,600.00	3,600.00	500.00	500.00	100.00	100.00	20,000.00	20,000.00
3	1	LS	CONSTRUCTION STAKING	1,200.00	1,200.00	1,000.00	1,000.00	3,600.00	3,600.00	700.00	700.00	100.00	100.00	5,000.00	5,000.00
4	1	LS	EROSION CONTROL	2,500.00	2,500.00	1,000.00	1,000.00	2,250.00	2,250.00	700.00	700.00	100.00	100.00	5,000.00	5,000.00
5	1	LS	UTILITY LOCATES	1,500.00	1,500.00	1,000.00	1,000.00	3,600.00	3,600.00	1,500.00	1,500.00	500.00	500.00	25,000.00	25,000.00
6	695	LF	PRE CONSTRUCTION TV INSPECTION	4.00	2,780.00	3.00	2,085.00	9.00	6,255.00	5.00	3,475.00	5.00	3,475.00	12.00	8,340.00
7	0.66	AC	SITE CLEARING AND GRUBBING	17,500.00	11,550.00	10,000.00	6,600.00	24,300.00	16,038.00	10,000.00	6,600.00	10,000.00	6,600.00	20,000.00	13,200.00
8	1	STA	SURFACE WATER MANAGEMENT	4,500.00	4,500.00	1,000.00	1,000.00	36,000.00	36,000.00	2,500.00	2,500.00	10,000.00	10,000.00	10,000.00	10,000.00
9	1	STA	DESIGN INSTALLATIN AND OPERATION OF WELL POITN SYSTEM	4,500.00	4,500.00	1,000.00	1,000.00	49,500.00	49,500.00	21,000.00	21,000.00	20,000.00	20,000.00	17,000.00	17,000.00
10	1	LS	BYPASS PUMPING	2,500.00	2,500.00	16,000.00	16,000.00	24,300.00	24,300.00	2,000.00	2,000.00	100.00	100.00	98,000.00	98,000.00
11	695	LF	PIPE BURST EXISTING 6" SANITARY SEWER LINE WITH NEW 8" SANNITARY SEWER LINE	42.00	29,190.00	52.00	36,140.00	53.10	36,904.50	50.00	34,750.00	155.00	107,725.00	120.00	83,400.00
12	5	EA	REMOVE EXISTING CONCRETE MANHOLE AND REPLACE WITH NEW 4' DIA. CONCRETE MANHOLE	7,800.00	39,000.00	9,000.00	45,000.00	14,017.50	70,087.50	6,000.00	30,000.00	10,000.00	50,000.00	16,000.00	80,000.00
13	1	EA	SANITARY SEWER RECONNECT	900.00	900.00	2,000.00	2,000.00	1,597.50	1,597.50	3,500.00	3,500.00	3,500.00	3,500.00	5,000.00	5,000.00
14	1	EA	REMOVE AND REPLACE AERIAL CREEK CROSSING	7,500.00	7,500.00	36,000.00	36,000.00	31,500.00	31,500.00	4,000.00	4,000.00	5,000.00	5,000.00	40,000.00	40,000.00
15	695	LF	POST CONSTRUCTION TV INSPECTION	3.00	2,085.00	2.00	1,390.00	4.50	3,127.50	5.00	3,475.00	3.00	2,085.00	12.00	8,340.00
16	1	LS	OWNER'S ALLOWANCE FOR MATERIALS TESTING	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
17	1	LS	OWNER'S ALLOWANCE FOR FIELD CHANGES	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00
Total Alternate Bid 2 (Items 1 - 17):					$ 148,955.00		$ 191,215.00		$ 322,860.00		$ 147,700.00		$ 249,285.00		$ 478,280.00

Alternate Bid 3 - Segment 27				Capital Underground Utilities		Texas Pride Utilities		Renoworks LLC		Bull G Construction		Horseshoe Construction		John Wright Construction	
Bid No.	Quantity	Unit	Item Description	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price
1	1	LS	Mobilization, Bonds & Insurance	$ 7,800.00	$ 7,800.00	$ 10,000.00	$ 10,000.00	$ 4,500.00	$ 4,500.00	$ 3,000.00	$ 3,000.00	$ 10,000.00	$ 10,000.00	$ 36,000.00	$ 36,000.00
2	1	LS	TRAFFIC CONTROL	1,450.00	1,450.00	1,000.00	1,000.00	3,600.00	3,600.00	800.00	800.00	100.00	100.00	40,000.00	40,000.00
3	1	LS	CONSTRUCTION STAKING	1,200.00	1,200.00	1,000.00	1,000.00	3,600.00	3,600.00	1,500.00	1,500.00	100.00	100.00	9,000.00	9,000.00
4	1	LS	EROSION CONTROL	1,500.00	1,500.00	1,000.00	1,000.00	2,250.00	2,250.00	800.00	800.00	100.00	100.00	28,800.00	28,800.00
5	1	LS	UTILITY LOCATES	1,500.00	1,500.00	6,000.00	6,000.00	3,600.00	3,600.00	771.00	771.00	500.00	500.00	25,000.00	25,000.00
6	771	LF	PRE CONSTRUCTION TV INSPECTION	4.00	3,084.00	3.00	2,313.00	9.00	6,939.00	5.00	3,855.00	5.00	3,855.00	12.00	9,252.00
7	0.70	AC	SITE CLEARING AND GRUBBING	18,500.00	12,950.00	10,000.00	7,000.00	24,300.00	17,010.00	10,000.00	7,000.00	10,000.00	7,000.00	20,000.00	14,000.00
8	1	STA	SURFACE WATER MANAGEMENT	2,800.00	2,800.00	4,000.00	4,000.00	40,500.00	40,500.00	4,000.00	4,000.00	10,000.00	10,000.00	17,000.00	17,000.00
9	1	STA	DESIGN INSTALLATIN AND OPERATION OF WELL POITN SYSTEM	2,800.00	2,800.00	1,000.00	1,000.00	49,500.00	49,500.00	23,130.00	23,130.00	20,000.00	20,000.00	21,000.00	21,000.00
10	1	LS	BYPASS PUMPING	2,500.00	2,500.00	16,000.00	16,000.00	40,500.00	40,500.00	2,000.00	2,000.00	100.00	100.00	95,000.00	95,000.00
11	771	LF	PIPE BURST EXISTING 6" SANITARY SEWER LINE WITH NEW 8" SANNITARY SEWER LINE	42.00	32,382.00	52.00	40,092.00	53.10	40,940.10	50.00	38,550.00	145.00	111,795.00	120.00	92,520.00
12	7	EA	REMOVE EXISTING CONCRETE MANHOLE AND REPLACE WITH NEW 4' DIA. CONCRETE MANHOLE	7,800.00	54,600.00	9,000.00	63,000.00	14,017.50	98,122.50	6,000.00	42,000.00	10,000.00	70,000.00	16,000.00	112,000.00
13	1	EA	SANITARY SEWER RECONNECT	900.00	900.00	2,000.00	2,000.00	1,597.50	1,597.50	3,500.00	3,500.00	3,500.00	3,500.00	5,000.00	5,000.00
14	1	EA	REMOVE AND REPLACE AERIAL CREEK CROSSING	7,500.00	7,500.00	36,000.00	36,000.00	31,500.00	31,500.00	4,000.00	4,000.00	5,000.00	5,000.00	40,000.00	40,000.00
15	771	LF	POST CONSTRUCTION TV INSPECTION	3.00	2,313.00	2.00	1,542.00	4.50	3,469.50	5.00	3,855.00	3.00	2,313.00	12.00	9,252.00
16	1	LS	OWNER'S ALLOWANCE FOR MATERIALS TESTING	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00
17	1	LS	OWNER'S ALLOWANCE FOR FIELD CHANGES	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00
Total Alternate Bid 3 (Items 1 - 17):					$ 165,279.00		$ 221,947.00		$ 377,628.60		$ 168,761.00		$ 274,363.00		$ 583,824.00

Total Base & Alt. 1, Alt. 2, and Alt. 3	$ 1,305,902.00	$ 1,563,964.00	$ 1,984,580.10	$ 1,791,231.00	$ 2,617,341.00	$ 3,516,586.00

BIDDING
and
CONTRACT DOCUMENTS

FOR

CONSTRUCTION SERVICES
FOR
ARPA Collection System Improvements

Bid #: 25-10-120

DUE DATE
March 27, 2025 @ 2:00 PM

City of Nacogdoches, Texas
City Hall
202 E. Pilar
Nacogdoches, TX 75961
936-559-2516

www.nactx.us

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INSTRUCTIONS TO BIDDERS

1.0 NOTICE

Sealed bids addressed to the City of Nacogdoches Engineering Office, 202 Pilar St., Suite 239, Nacogdoches, TX 75961, will be received for **Construction Services for ARPA Collection System Improvements** until **2:00 PM, March 27, 2025** after which time all qualified bids will be publicly opened and read aloud at City Hall Conference Room 203. Bids received after that time will be returned unopened. No fax or email bids will be accepted.

LOCATION AND DESCRIPTION OF PROJECT

North Street from Ellington to Austin including 4,384 LF Pipe Bursting of Existing 6" Sewer Line with New 8" Sewer Line, 17 EA Remove and Replace 4' Dia. Conc. Manholes, 75 EA Service Reconnections, 800 SY of HMAC repair, and other miscellaneous items of construction. Three alternated bids will also be included for pipe bursting additional locations, totaling 2432 LF of sewer line and 16 manholes.

COPIES OF BIDDING DOCUMENTS

A complete set of Bidding and Contract Documents will be made available for no charge on a flash drive (or other electronic means) at:

City of Nacogdoches City Hall
Engineering Office
202 Pilar Street, Suite 239
Nacogdoches, TX 75961

The successful bidder will be required to furnish a Payment Bond and Performance Bond in the amount of the contract. Bidders may not withdraw their Bid Proposal within 60 calendar days of the bid opening date.

Sealed bids shall be clearly marked with the words "Sealed Bid, ARPA Collection System Improvements" and addressed to the City of Nacogdoches. Bids shall be delivered using one of the following methods:

Hand-deliver to:	**Mail to:**	**Ship to (FedEx, UPS, DHL, etc.):**
Engineering Office 202 Pilar Street, Suite 239 Nacogdoches, TX 75961	Attn: Engineering PO Box 635030 Nacogdoches, Texas 75963	Attn: Engineering 202 East Pilar, Suite 239 Nacogdoches, Texas 75961

A Certified Cashier's Check or an acceptable Bid Bond in an amount of not less than five (5) percent of the total amount bid shall accompany each bid proposal.

2.0 DEFINITION OF TERMS

In order to simplify the language throughout this bid, the following definitions and those defined in the Contract Documents shall apply:

BIDDER - A contractor who submits a Bid directly to the City.
BIDDING DOCUMENTS - the Advertisement, Instructions to Bidders, the Proposal, Special Provisions, Technical Specifications and the proposed Contract Documents (including all Addenda issued prior to the receipt of Bids).
CITY – Same as City of Nacogdoches.
CITY COUNCIL – The elected officials of the City of Nacogdoches, Texas given the authority to exercise such powers and jurisdiction of all City business as conferred by the State Constitution and Laws.
CONTRACT – An agreement between the City and a Supplier to furnish supplies and/or services over a designated period of time during which repeated purchases are made of the commodity specified.
CONTRACTOR – The successful Bidder(s) of this bid request.
CITY – The government of the City of Nacogdoches, Texas.
OWNER – City of Nacogdoches.
SUB-CONTRACTOR – Any contractor hired by the Contractor or Supplier to furnish materials and services specified in this bid request.
SUCCESSFUL BIDDER - the lowest, qualified, responsible and responsive Bidder to whom the City (on the basis of the City's evaluation as hereinafter provided) makes an award.
SUPPLIER – Same as Contractor.

3.0 COPIES OF BIDDING DOCUMENTS

A complete set of Bidding Documents are available for no charge on a flash drive (or other electronic means) by contacting the following:

City of Nacogdoches City Hall
Engineering Office
202 Pilar Street, Suite 239
Nacogdoches, TX 75961

Complete sets of Bidding Documents must be used in preparing Bids; the City assumes no responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

4.0 COMMUNICATION

The Owner’s Representative for all communication regarding the Bidding and Contract Documents, including specifications and drawings is:

Travis Reed, P.E.
treed@spi-eng.com
903-595-3913

No oral questions and other interpretations or clarification will be considered official or binding.

5.0 PRE-BID CONFERENCE

~~A Pre-bid Meeting will be held at **{Location, Address}, Nacogdoches, Texas** at **10:00 a.m. on {Month, Day, Year}**. This meeting is not mandatory, but attendance is highly recommended.~~

~~Representatives of the Owner will be present to discuss the project. Bidders are highly encouraged to attend and participate in the conference. Owner's Representative will transmit to all prospective bidders of record such Addenda as he considers necessary in response to questions arising at the conference.~~

6.0 GENERAL BID PROVISIONS

a. The Invitation to Bid as advertised will be considered an inclusion of the specifications and conditions.
b. Bid proposals will be submitted on the forms provided by Owner. All figures must be written in ink or typewritten. However, mistakes may be crossed out, corrections inserted adjacent thereto and initiated in ink by the person signing the proposal. Do not use a whiteout or other cover products on mistakes.
c. Formal advertised bids indicate date and time by which the bids must be received at the designated location. Bids received after that time will be returned unopened to the bidder.
d. The bidder will note any exceptions to the conditions of this bid. If no exceptions are stated, it will be understood that all general and specific conditions will be complied with, without exception.
e. Bidders may request withdrawal of a posted sealed proposal prior to the scheduled bid opening time, provided the request for withdrawal is submitted to the City of Nacogdoches in writing. Owner reserves the right to reject any and all bids by reason of this request.
f. If it becomes necessary to revise any part of this bid, a written addendum will be provided to all bidders. Owner is not bound by any oral representations, clarifications, or changes made in the written specifications by Owner's employees, unless such clarification of change is provided to bidders in written addendum form from the City of Nacogdoches.
g. Pursuant to Local Government Code 271.9051, if the bid is less than $100,000 and the City Council determines that a local bidder whose principal place of business is in the City offers the City the best combination of contract price and additional economic development opportunities for the City created by the contract award, including the employment of residents of the municipality and increased tax revenues to the municipality, the city **may** award the bid to the local bidder whose bid is within 5% of the lowest bid. Otherwise, all bids will be awarded to the lowest responsible bidder. The determination of the lowest responsible bidder may involve all or some of the following factors: price, conformity to specifications, financial ability to perform the contract, previous performance, facilities and equipment, availability of repair parts, qualifications and experience, delivery promise, payment terms, compatibility as required, other costs, and other objectives and accountable factors which are reasonable.
h. Owner may give an environmental preference to products or services that have a lesser or reduced effect on human health and the environment when compared with competing products and services that serve the same purpose. This comparison may consider raw materials acquisition, product, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service;
i. Bidders may be disqualified and rejection of proposals may be recommended to the Owner for any (but not limited to) of the following causes: 1) Failure to use the proposal form furnished by the Owner; 2) Lack of signature by an authorized representative on the proposal form; 3) Failure to properly complete the proposal; 4) Evidence of collusion among proposers; 5)

Omission of a certified Cashier's Check or Bid Bond (if required) proposal guarantee; 6) Unauthorized alteration of bid form; 7) Lack of appropriate qualifications and experience relative to the size and scope of the work proposed; 8) Unsatisfactory performance; 9) Failure to complete projects or 10) Loaded or unbalanced bids. Owner reserved the right to waive any minor informality or irregularity.

j. Whenever in this invitation, any particular materials, process and/or equipment are indicated or specified by patent, proprietary or brand name, or by name of manufacture, such wording will be deemed to be used for the purpose of facilitating description of the material, process and/or equipment desired and will be deemed to be followed by the words "or equal." Contractor shall provide exactly such items in his bid as described, unless approved pursuant to Paragraph 12.0 herein.
k. Samples of items shall be furnished, if requested by the Owner, without charge, and if not destroyed, shall be returned upon request at the bidder's expense.
l. It is agreed that the successful bidder will not assign, transfer, convey or otherwise dispose of the contract or its right, title or interest in or to the same, or any part thereof, without previous written consent of Owner and any sureties.
m. Contractor must provide audited financial statements, if requested, to the City.
n. Prices in the Bid Proposal shall be presented in the format requested (Unit Price, Lump Sum, etc.)
o. No freight or delivery charges will be accepted unless shown on bid.
p. Owner is exempt from State Retail Tax and Federal Excise Tax. The price bid must be net, exclusive of taxes.
q. All bidders will comply with all Federal, State, and local laws relative to conducting business in the City of Nacogdoches. The laws of the State of Texas will govern as to the interpretation, validity, and effect of this bid, its award and any contract entered into.
r. Advanced disclosures of any information to any particular bidder which gives that particular bidder any advantage over any other interested bidder in advance of the opening of bids, whether in response to advertising or an informal request for bids, made or permitted by a member of the governing body or an employee or representative thereof, will operate to void all proposals of that particular bid solicitation or request.
s. Minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, creed, sex, or national origin in consideration for an award.

7.0 QUALIFICATIONS OF BIDDERS

To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit within five days of City's request, written evidence, such as financial data, previous experience, present commitments and other such data as may be called for below. Each Bid must contain evidence of the Bidder's qualifications to do business in the State of Texas or covenant to obtain such qualification prior to award of the contract.

In determining a bidder's qualifications, the following factors will be considered:

A. Work previously completed by the bidder and whether the bidder:
   a. maintains a permanent place of business;
   b. has adequate plant and equipment to do the work properly and expeditiously;
   c. has paid or settled all claims for payment promptly;
   d. has appropriate technical experience;

e. has job references for work of similar size and scope to the project; and
f. satisfactory performance and completion of public, or comparable, projects.

B. The safety record of the Bidder, of the corporation, partnership, or institution represented by the Bidder, or of any one acting for such firm, corporation, or partnership.

Each Bidder may be required to show that he has properly completed similar type work and that no claims are now pending against such work. No bid will be accepted from any bidder who is engaged in any work that would impair his ability to fully execute, perform or finance this work. The General/Subcontractors Experience Data Sheet following the proposal must be filled out and submitted with the bid for consideration. Failure to include a completed Data Sheet may result in the rejection of the bid.

8.0 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

A. It is the responsibility of each Bidder before submitting a Bid to:

a. examine the Contract Documents thoroughly;
b. visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the Work;
c. consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work;
d. study and carefully correlate Bidder's observations with the Contract Documents;
e. notify the Owner's Representative of all conflicts, errors or discrepancies in the Contract Documents; and
f. visit with local utilities, including cable companies, and other entities that may have underground or above-ground infrastructure in the work area for infrastructure location.

B. Information and data reflected in the Contract Documents with respect to underground facilities at or contiguous to the site is based upon information and data from the Owner's files for its underground facilities and information and data furnished by owners of other underground facilities. Owner does not assume responsibility for the accuracy or completeness thereof.

C. Before submitting a Bid each Bidder will be responsible to make or obtain such explorations, at bidders expense and not to be added into cost of bid if accepted (tests and data concerning physical conditions - surface, subsurface and underground facilities - at or contiguous to the site, or otherwise) which may affect cost, progress, performance or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

D. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment or disposal of spoil are to be provided by the Contractor. Contractor is responsible for obtaining all permits required for any of the before mentioned purposes prior to beginning work in accordance with the Standard Form Of Agreement, Paragraph 35 Permits and Licenses.

E. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this section, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

9.0 INTERPRETATIONS and ADDENDA

All questions about the meaning or intent of the Contract Documents are to be directed to the Owner. Interpretations or clarification considered necessary by the Owner's Representative in response to such questions will be issued by Addenda and mailed or otherwise delivered to all parties recorded by the Owner's Representative as having received the Bidding Documents. Questions received less than 48 hours prior to opening of Bids will not be answered. Only questions answered by formal written Addenda will be binding. No oral and other interpretations or clarification will be considered official or binding.

Addenda may also be issued to modify the Bidding Documents as deemed advisable by the City.

To properly qualify his bid, each Bidder shall, prior to filing his Bid, check the receipt of all Addenda or letters of clarification issued and acknowledge such receipt on the Proposal Form or on a separate attachment to the bid. Bids without such acknowledgment of all issued Addenda and letters of clarification may cause your bid to be considered non-responsive. Such Addenda and letters of clarification shall become a part of the executed contract and modify the contract documents accordingly.

10.0 BID SECURITY

Bidders must submit with their Bids a Cashier's Check or a Certified Check in the amount of five (5%) percent of the maximum amount of Bid payable without recourse to the City of Nacogdoches, Texas, or a bid bond in the same amount from a surety company holding permit from the State of Texas to act as a surety, as a guarantee that Bidder will enter into a contract and execute bond and guarantee forms within fifteen (15) days after notice of award of contract. Bids without checks, as stated above, or acceptable bid bond may not be considered.

Bid Security shall be in effect from the opening of the Bid and will be retained until a Bidder has executed the Agreement and furnished the required contract security, whereupon the Bid Security will be returned. A Bidder may withdraw its Bid at any time until the Agreement is signed. However, it will forfeit its Bid Security in doing so if no material mistake was made in the Bid.

The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required contract security, whereupon the Bid Security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within fifteen (15) days after the Notice of Award, the Owner may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until 5 days after the Agreement is executed whereupon Bid Security furnished by such Bidders will be returned. Bid Security with Bids which are not competitive will be returned within seven days after the Bid opening.

11.0 CONTRACT TIME

The times for Substantial Completion and Final Completion are set forth in the Special Provisions and will be included in the Agreement. It will be necessary for the Successful Bidder to satisfy the City of the Bidder's ability to achieve Substantial Completion and Final Completion within the times designated in the Special Provisions.

12.0 SUBSTITUTE OR "OR EQUAL" ITEMS

The materials and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitution will be considered unless a written request for approval has been submitted by the Bidder and has been received by the Owner's Representative at least five (5) working days prior to the date for receipt of Bids or until after the contract for the work has been signed. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. The burden of proof of the merit of the proposed substitute is upon the Bidder. The Owner's Representative's decision of approval or disapproval of a proposed substitution shall be final. If the Owner's Representative approves any proposed substitution before the date for receipt of bids, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

13.0 BID FORM

All blanks on the Bid Form must be completed in ink or by typewriter. Unfilled blanks may result in the bid being disqualified.

Any financial amounts written in words will supersede amounts written by numbers in the Bid Form.

Bids by corporations must be executed in the corporate name by the corporate officer authorized to sign for the corporation, accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown below the signature.

Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and accompanied by evidence of authority to sign. The fiscal address of the partnership must be shown below the signature.

All names must be typed or printed below the signature.

The Bid shall contain an acknowledgment of receipt of all Addenda. The numbers and dates of which must be filled in on the Bid Form or on a separate attachment to the Bid.
The address and telephone number(s) for communication regarding the Bid must be shown.

All of the data on the GENERAL/SUBCONTRACTORS EXPERIENCE AND DATA INFORMATION sheet must be completely filled in.

14.0 SUBMISSION OF BIDS

A Bid shall be submitted at the time and place indicated in the Advertisement. It shall be enclosed in an opaque sealed envelope, marked with the project title, name and address of the Bidder. The Bid shall be accompanied by the Bid Security and other required documents. If the Bid is sent

through the mail or other delivery system the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.

Each Bidder should, prior to filing his Bid, check the receipt of all Addenda or letters of clarification issued and acknowledge such receipt on the outside of the envelope containing his Bid proposal.

15.0 MODIFICATION AND WITHDRAWAL OF BIDS

Bids may be modified or withdrawn by an appropriate document duly executed, in the described manner that a Bid must be executed and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

If prior to the award of the contract by the City Council, any Bidder files a duly signed, written notice with Owner's Representative and promptly thereafter demonstrates to the reasonable satisfaction of Owner's Representative that there was a material mistake in the preparation of his Bid, that Bidder may withdraw his Bid and the Bid Security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

16.0 OPENING OF BIDS

Properly prepared Bids will be opened publicly and read aloud. A summary of the amounts of the base Bids and major alternates (if any) will be made available to Bidders after the opening of Bids. A tabulation of the Bids which are read will be available upon request as soon as it has been assembled and verified.

Bids received after the specified time of the opening will be returned unopened.

17.0 BIDS TO REMAIN SUBJECT TO ACCEPTANCE

All bids will remain subject to acceptance, for 60 days after the date of the Bid opening, but the Owner may, in its sole discretion, release any Bid and return the Bid Security prior to that date.

18.0 AWARD OF CONTRACT

Owner reserves the right to reject any and all Bids, to waive any and all informalities and irregularities not involving price, time, or changes in the Work and to disregard all non-conforming, non-responsive, unbalanced or conditional Bids. Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

In evaluating Bids, the Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, time of construction, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

Owner may consider the qualifications and experience of subcontractors, suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of

subcontractors, suppliers, and other persons and organizations must be submitted as provided. Owner may also consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed subcontractors, suppliers and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

Pursuant to Local Government Code 271.9051, if the bid is less than $100,000 and the City Council determines that a local bidder whose principal place of business is in the City offers the City the best combination of contract price and additional economic development opportunities for the City created by the contract award, including the employment of residents of the municipality and increased tax revenues to the municipality, the city **may** award the bid to the local bidder whose bid is within 5% of the lowest bid.

Otherwise, all bids will be awarded to the lowest responsible bidder. The determination of the lowest responsible bidder may involve all or some of the following factors: price, conformity to specifications, financial ability to perform the contract, previous performance, facilities and equipment, availability of repair parts, qualifications and experience, delivery promise, payment terms, compatibility as required, other costs, and other objectives and accountable factors which are reasonable.

If the contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within 60 days after the day of the Bid opening.

Bid prices may be compared after adjusting for differences in the time designated in the Bid for Substantial Completion. The adjusting amount will be determined at the rate set forth in the Standard Form of Agreement for liquidated damages indicated for Substantial Completion for each day after the desired date appearing in the City's Standard Form of Agreement, Paragraph 23.

19.0 CONTRACT SECURITY

Paragraph 28 BOND PROVISIONS of the Standard Form of Agreement set forth Owner's requirements as to performance and payment Bonds. When the Successful Bidder delivers the executed Agreement to the Owner, it must be accompanied by the required performance and payment Bonds.

20.0 SIGNING OF AGREEMENT

The Successful Bidder shall execute the Contract and provide proof of insurance as detailed in the Standard Form of Agreement based on Staff recommendation prior to Council action. Within 15 days of Award, all required Bonds shall be delivered to the Owner. A fully executed contract will be presented to the Successful Bidder.

21.0 PERSONAL INTEREST

Bidders shall comply with all applicable ordinances and with state law pertaining to conflict of interest and required disclosures, including, but not limited to, TEXAS LOCAL GOVERNMENT CODE, Chapter 171.

22.0 DISCLOSURE OF INTERESTED PARTIES

Contracting hereunder may require compliance with §2252.908 Texas Government Code/Disclosure of Interested Parties for contracts that (1) require an action or vote by the City Council before the contract may be signed; or (2) has a value of at least $1 million. The law provides that a governmental entity may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties to the governmental entity at the time the business entity submits the signed contract to the governmental entity or state agency.

For purposes of this section, the following definitions apply:

“Interested party” means a person who has a controlling interest in a business entity with whom the City contracts or who actively participates in facilitating the contract or negotiating the terms of the contract, including a broker intermediary, advisor, or attorney for the business entity.

"Controlling interest" means: (1) an ownership interest or participating interest in a business entity by virtue of units, percentage, shares, stock, or otherwise that exceeds 10 percent; (2) membership on the board of directors or other governing body of a business entity of which the board or other governing body is composed of not more than 10 members; or (3) service as an officer of a business entity that has four or fewer officers, or service as one of the four officers most highly compensated by a business entity that has more than four officers.

"Intermediary," means a person who actively participates in the facilitation of the contract or negotiating the contract, including a broker, adviser, attorney, or representative of or agent for the business entity who:

1. Receives compensation from the business entity for the person's participation;
2. Communicates directly with the City on behalf of the business entity regarding the contract; and
3. Is not an employee of the business entity.

The process as implemented by the Texas Ethics Commission (“TEC”) is as follows:

1. The disclosure of interested parties must be performed using the Texas Ethics Commission’s electronic filing application listing each interested party of which the business entity is aware of Form 1295, obtaining a certification of filing number for this form from the TEC, and printing a copy of it to submit to the City.
2. The copy of Form 1295 submitted to the City must be notarized and contain the unique certification number from the TEC. The form must be filed with the City pursuant to §2252.908 Texas Government Code, “at the time the business entity submits the signed contract” to the City.

The City, in turn, will submit a copy of the disclosure form to the TEC not later than the 30th day after the date the City receives the disclosure of interested parties from the business entity.

CONTRACTOR'S PROPOSAL

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE

Base Bid Items - Segment 31

1. 1 LS **CONTRACTOR MOBILIZATION, BONDS AND INSURANCE** ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF

Forty Five Thousand DOLLARS &
Zero CENTS $45,000.00

Per Unit
($ 45,000.00)

2. 1 LS **TRAFFIC CONTROL PLANNING AND ACTIVITIES,** INCLUDING PROVIDING AND IMPLEMENTING OVERALL TRAFFIC CONTROL PLAN, COORDINATION AND SCHEDULING, IN ACCORDANCE WITH PLANS, SPECS, TXDOT PERMITTING, AND TMUTCD, THE SUM OF

Thirty Five Thousand Dollars DOLLARS &
Zero CENTS $35,000.00

Per Unit
($ 35,000.00)

3. 1 LS **CONSTRUCTION STAKING** INCLUDING LOCATION, CONFIRMATION, AND TIE-IN OF PRE-ESTABLISHED BENCHMARKS, PROPERTY LINES, EASEMENTS, AND RIGHT OF WAYS, AS DESCRIBED IN PLANS, THE SUM OF

Seven Thousand Five Hundred DOLLARS &
Zero CENTS $7,500.00

Per Unit
($ 7,500.00)

4. 1 LS **EROSION CONTROL** INCLUDING SWP3 SUBMISSION OF NOI AND NOT, INSTALLATION, INSPECTION, AND MAINTENANCE OF CONTROLS, AND SWP3 DOCUMENTATION THE SUM OF

Two Thousand Five Hundred DOLLARS &
Zero CENTS $2,500.00

Per Unit
($ 2,500.00)

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
5.	1	LS	**PRE-CONSTRUCTION LOCATION & CONFIRMATION OF EXISTING UTITILIES** INCLUDING COORDINATION WITH TEXAS 811, FRANCHISE UTILITY COMPANIES, AND THE CITY OF NACOGDOCHES, LOCATION AND VERFICATION OF EXACT DEPTH, LOCATION, SIZE, AND MATERIALS OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION ACTVITIES, ALL EQUIPMENT, MATERIALS, LABOR & SUPERINTENDENCE, ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Two Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 2,500.00)	$2,500.00
6.	4384	LF	**PRE CONSTRUCTION TV INSPECTION OF EXISTING SANITARY SEWER LINE**, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Six Dollars DOLLARS & Zero CENTS Per Unit ($ 6.00)	26,304.00
7.	1	LS	**BYPASS PUMPING,** PUMPING OR PIPING TO KEEP LINE IN SERVICE, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE 24/7 SUPERVISION, AND BACKUP PUMP, EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Twenty Five Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 25,500.00)	$25,500.00
8.	4384	LF	**PIPE BURST EXISTING 6" SANITARY SEWERLINE WITH NEW 8" SANITARY SEWERLINE**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, BACKFILLING, SURFACE RESTORATION, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Forty Two DOLLARS & Zero CENTS Per Unit ($ 42.00)	$184,128.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
9.	1	EA	**NEW 4' DIA. CONCRETE MANHOLE**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, FOUNDATION, BACKFILLING, SURFACE RESTORATION, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Ten Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 10,500.00)	$10,500.00
10.	16	EA	**REMOVE EXISTING CONCRETE MANHOLE, AND REPLACE WITH NEW 4' DIA. CONCRETE MANHOLE**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, FOUNDATION, BACKFILLING, SURFACE RESTORATION, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Ten Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 10,500.00)	$168,000.00
11.	20	LF	**REMOVE EXISTING STEEL LINE AND REPLACE WITH 8" D2241 PR 160 SDR 26 PVC INSTLLED IN 14" STANDARD WEIGHT STEEL CASING (5/16")**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, BACKFILLING, SURFACE RESTORATION, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Seven Hundred and Twenty DOLLARS & Zero CENTS Per Unit ($ 720.00)	$14,400.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
12.	80	EA	**SANITARY SEWER SERVICE RECONNECT**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, BACKFILLING, SURFACE RESTORATION, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF One Thousand Two Hundred and Fifty DOLLARS & Zero CENTS Per Unit ($ 1,250.00)	$100,000.00
13.	835	SY	**REPAIR OF HMAC PAVEMENT**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, INCLUDING, ALL EQUIPMENT, INCIDENTALS, MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Ninety DOLLARS & Zero CENTS Per Unit ($ 90.00)	$75,150.00
14.	4384	LF	**POST CONSTRUCTION TV INSPECTION OF COMPLETED SANITARY SEWER LINE**, PAID FOR ONLY ON ENGINEER/OWNER APPROVAL, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Three DOLLARS & Zero CENTS Per Unit ($ 3.00)	$13,152.00
15.	1	LS	**OWNER'S ALLOWANCE FOR MATERIALS TESTING**. CONTRACTOR SHALL PAY ALL NECESSARY LAB FEES, TO BE REIMBURSED THROUGH THIS BID ITEM. ONLY DIRECT INVOICES FROM THE LAB WILL BE REIMBURSED, THE SUM OF Fifteen Thousand DOLLARS & Zero CENTS Per Unit ($ 15,000.00)	$15,000.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
16.	1	LS	**OWNER'S ALLOWANCE FOR FIELD CHANGES** - TO BE DISBURSED ONLY WITH SPECIFIC WRITTEN APPROVAL OF OWNER, THE SUM OF Seventy Five Thousand DOLLARS & Zero CENTS Per Unit ($ 75,000.00)	$75,000.00
			Total Base Bid - Segment 31 (Sum of Items 1-16)	$799,634.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE

Alternate Bid 1 Items - Segment 19

1. 1 LS **CONTRACTOR MOBILIZATION, BONDS AND INSURANCE** ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF

Twelve Thousand Five Hundred DOLLARS &
Zero CENTS $12,500.00
Per Unit
($ 12,500.00)

2. 1 LS **TRAFFIC CONTROL PLANNING AND ACTIVITIES,** INCLUDING PROVIDING AND IMPLEMENTING OVERALL TRAFFIC CONTROL PLAN, COORDINATION AND SCHEDULING, IN ACCORDANCE WITH PLANS, SPECS, TXDOT PERMITTING, AND TMUTCD, THE SUM OF

One Thousand Two Hundred DOLLARS &
Zero CENTS $1,200.00
Per Unit
($ 1,200.00)

3. 1 LS **CONSTRUCTION STAKING** INCLUDING LOCATION, CONFIRMATION, AND TIE-IN OF PRE-ESTABLISHED BENCHMARKS, PROPERTY LINES, EASEMENTS, AND RIGHT OF WAYS, AS DESCRIBED IN PLANS, THE SUM OF

One Thousand DOLLARS &
Zero CENTS $1,000.00
Per Unit
($ 1,000.00)

4. 1 LS **EROSION CONTROL** INCLUDING SWP3 SUBMISSION OF NOI AND NOT, INSTALLATION, INSPECTION, AND MAINTENANCE OF CONTROLS, AND SWP3 DOCUMENTATION THE SUM OF

One Thousand Two Hundred DOLLARS &
Zero CENTS $1,200.00
Per Unit
($ 1,200.00)

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
5.	1	LS	**PRE-CONSTRUCTION LOCATION & CONFIRMATION OF EXISTING UTITILIES** INCLUDING COORDINATION WITH TEXAS 811, FRANCHISE UTILITY COMPANIES, AND THE CITY OF NACOGDOCHES, LOCATION AND VERFICATION OF EXACT DEPTH, LOCATION, SIZE, AND MATERIALS OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION ACTVITIES, ALL EQUIPMENT, MATERIALS, LABOR & SUPERINTENDENCE, ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF One Thousand Two Hundred DOLLARS & Zero CENTS Per Unit ($ 1,200.00)	$1,200.00
6.	966	LF	**PRE CONSTRUCTION TV INSPECTION OF EXISTING SANITARY SEWER LINE**, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Four DOLLARS & Zero CENTS Per Unit ($ 4.00)	$3,864.00
7.	0.28	AC	**SITE CLEARING AND GRUBBING**, MAX. 40' WIDTH ALONG ALIGNMENT, NO BURNING OR ON-SITE MULCH DISPOSAL TO BE ALLOWED, COMPLETE IN PLACE, READY FOR CONSTRUCTION, ALL MATERIALS, LABOR & SUPERINTENDENCE, ALL IN ACCORDANCE WITH THE PLANS AND SPECS, THE SUM OF Seven Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 7,500.00)	$2,100.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
8.	1	STA	**SURFACE WATER MANAGEMENT**, LOCATION TO BE DETERMINED IN FIELD AS NEEDED, CONTINGENT ON OWNERS FIELD REVIEW AND APPROVAL, COMPLETE IN PLACE, READY FOR SERVICE, INCLUDING SCHEDULING, IMPOUNDMENT, DIVERSION, DRAINING, OR OTHER METHODS OF SURFACE WATER CONTROL TO FACILITATE CONSTRUCTION OF IMPROVEMENTS, INCLUDING COMPLIANCE WITH SW3P, EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Two Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 2,500.00)	$2,500.00
9.	1	STA	**DESIGN INSTALLATION AND OPERATION OF WELL POINT SYSTEM OR OTHER APPROVED METHOD OF GROUND WATER CONTROL**, LOCATION TO BE DETERMINED IN FIELD AS NEEDED, CONTINGENT ON OWNERS FIELD REVIEW AND APPROVAL, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Seven Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 7,500.00)	$7,500.00
10.	1	LS	**BYPASS PUMPING**, PUMPING OR PIPING TO KEEP LINE IN SERVICE, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE 24/7 SUPERVISION, AND BACKUP PUMP, EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Four Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 4,500.00)	$4,500.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
14.	15	EA	**SANITARY SEWER SERVICE RECONNECT**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, BACKFILLING, SURFACE RESTORATION, PAVEMENT REPAIR, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Two Thousand One Hundred DOLLARS & Zero CENTS Per Unit ($ 2,100.00)	$31,500.00
15.	1	EA	**REMOVE AND REPLACE AERIAL CREEK CROSSING, INCLUDING CONCRETE PIPE ANCHORS**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, BACKFILLING, SURFACE RESTORATION, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Seven Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 7,500.00)	$7,500.00
16.	966	LF	**POST CONSTRUCTION TV INSPECTION OF COMPLETED SANITARY SEWER LINE**, PAID FOR ONLY ON ENGINEER/OWNER APPROVAL, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Three DOLLARS & Zero CENTS Per Unit ($ 3.00)	$2,898.00
17.	1	LS	**OWNER'S ALLOWANCE FOR MATERIALS TESTING**. CONTRACTOR SHALL PAY ALL NECESSARY LAB FEES, TO BE REIMBURSED THROUGH THIS BID ITEM. ONLY DIRECT INVOICES FROM THE LAB WILL BE REIMBURSED, THE SUM OF Five Thousand DOLLARS & Zero CENTS Per Unit ($ 5,000.00)	$5,000.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
18.	1	LS	**OWNER'S ALLOWANCE FOR FIELD CHANGES** - TO BE DISBURSED ONLY WITH SPECIFIC WRITTEN APPROVAL OF OWNER, THE SUM OF Twenty Five Thousand DOLLARS & Zero CENTS Per Unit ($ 25,000.00)	$25,000.00
			Total Alternate Bid 1 - Segment 19 (Sum of Items 1-18)	$192,034.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE

Alternate Bid 2 Items - Segment 20

1. 1 LS **CONTRACTOR MOBILIZATION, BONDS AND INSURANCE** ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF

Seven Thousand Eight Hundred DOLLARS &
Zero CENTS $7,800.00
Per Unit
($ 7,800.00)

2. 1 LS **TRAFFIC CONTROL PLANNING AND ACTIVITIES,** INCLUDING PROVIDING AND IMPLEMENTING OVERALL TRAFFIC CONTROL PLAN, COORDINATION AND SCHEDULING, IN ACCORDANCE WITH PLANS, SPECS, TXDOT PERMITTING, AND TMUTCD, THE SUM OF

One Thousand Four Hundred & Fifty DOLLARS &
Zero CENTS $1,450.00
Per Unit
($ 1,450.00)

3. 1 LS **CONSTRUCTION STAKING** INCLUDING LOCATION, CONFIRMATION, AND TIE-IN OF PRE-ESTABLISHED BENCHMARKS, PROPERTY LINES, EASEMENTS, AND RIGHT OF WAYS, AS DESCRIBED IN PLANS, THE SUM OF

One Thousand Two Hundred DOLLARS &
Zero CENTS $1,200.00
Per Unit
($ 1,200.00)

4. 1 LS **EROSION CONTROL** INCLUDING SWP3 SUBMISSION OF NOI AND NOT, INSTALLATION, INSPECTION, AND MAINTENANCE OF CONTROLS, AND SWP3 DOCUMENTATION THE SUM OF

Two Thousand Five Hundred DOLLARS &
Zero CENTS $2,500.00
Per Unit
($ 2,500.00)

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
5.	1	LS	**PRE-CONSTRUCTION LOCATION & CONFIRMATION OF EXISTING UTITILIES** INCLUDING COORDINATION WITH TEXAS 811, FRANCHISE UTILITY COMPANIES, AND THE CITY OF NACOGDOCHES, LOCATION AND VERFICATION OF EXACT DEPTH, LOCATION, SIZE, AND MATERIALS OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION ACTVITIES, ALL EQUIPMENT, MATERIALS, LABOR & SUPERINTENDENCE, ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF One Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 1,500.00)	$1,500.00
6.	695	LF	**PRE CONSTRUCTION TV INSPECTION OF EXISTING SANITARY SEWER LINE**, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Four DOLLARS & Zero CENTS Per Unit ($ 4.00)	$2,780.00
7.	0.66	AC	**SITE CLEARING AND GRUBBING**, MAX. 40' WIDTH ALONG ALIGNMENT, NO BURNING OR ON-SITE MULCH DISPOSAL TO BE ALLOWED, COMPLETE IN PLACE, READY FOR CONSTRUCTION, ALL MATERIALS, LABOR & SUPERINTENDENCE, ALL IN ACCORDANCE WITH THE PLANS AND SPECS, THE SUM OF Seventeen Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 17,500.00)	$11,550.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
8.	1	STA	**SURFACE WATER MANAGEMENT**, LOCATION TO BE DETERMINED IN FIELD AS NEEDED, CONTINGENT ON OWNERS FIELD REVIEW AND APPROVAL, COMPLETE IN PLACE, READY FOR SERVICE, INCLUDING SCHEDULING, IMPOUNDMENT, DIVERSION, DRAINING, OR OTHER METHODS OF SURFACE WATER CONTROL TO FACILITATE CONSTRUCTION OF IMPROVEMENTS, INCLUDING COMPLIANCE WITH SW3P, EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Four Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 4,500.00)	$4,500.00
9.	1	STA	**DESIGN INSTALLATION AND OPERATION OF WELL POINT SYSTEM OR OTHER APPROVED METHOD OF GROUND WATER CONTROL**, LOCATION TO BE DETERMINED IN FIELD AS NEEDED, CONTINGENT ON OWNERS FIELD REVIEW AND APPROVAL, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Four Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 4,500.00)	$4,500.00
10.	1	LS	**BYPASS PUMPING,** PUMPING OR PIPING TO KEEP LINE IN SERVICE, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE 24/7 SUPERVISION, AND BACKUP PUMP, EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Two Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 2,500.00)	$2,500.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
11.	695	LF	**PIPE BURST EXISTING 6" SANITARY SEWERLINE WITH NEW 8" SANITARY SEWERLINE**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, BACKFILLING, SURFACE RESTORATION, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Forty Two DOLLARS & Zero CENTS Per Unit ($ 42.00)	$29,190.00
12.	5	EA	**REMOVE EXISTING CONCRETE MANHOLE, AND REPLACE WITH NEW 4' DIA. CONCRETE MANHOLE**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, FOUNDATION, BACKFILLING, SURFACE RESTORATION, PAVEMENT REPAIR ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Seven Thousand Eight Hundred DOLLARS & Zero CENTS Per Unit ($ 7,800.00)	$39,000.00
13.	1	EA	**SANITARY SEWER SERVICE RECONNECT**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, BACKFILLING, SURFACE RESTORATION, PAVEMENT REPAIR, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Nine Hundred DOLLARS & Zero CENTS Per Unit ($ 900.00)	$900.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
Alternate Bid 3 Items - Segment 27				
1.	1	LS	**CONTRACTOR MOBILIZATION, BONDS AND INSURANCE** ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Seven Thousand Eight Hundred DOLLARS & Zero CENTS Per Unit ($ 7,800.00)	$7,800.00
2.	1	LS	**TRAFFIC CONTROL PLANNING AND ACTIVITIES,** INCLUDING PROVIDING AND IMPLEMENTING OVERALL TRAFFIC CONTROL PLAN, COORDINATION AND SCHEDULING, IN ACCORDANCE WITH PLANS, SPECS, TXDOT PERMITTING, AND TMUTCD, THE SUM OF One Thousand Four Hundred & Fifty DOLLARS & Zero CENTS Per Unit ($ 1,450.00)	$1,450.00
3.	1	LS	**CONSTRUCTION STAKING** INCLUDING LOCATION, CONFIRMATION, AND TIE-IN OF PRE-ESTABLISHED BENCHMARKS, PROPERTY LINES, EASEMENTS, AND RIGHT OF WAYS, AS DESCRIBED IN PLANS, THE SUM OF One thousand Two Hundred. DOLLARS & Zero CENTS Per Unit ($ 1,200.00)	$1,200.00
4.	1	LS	**EROSION CONTROL** INCLUDING SWP3 SUBMISSION OF NOI AND NOT, INSTALLATION, INSPECTION, AND MAINTENANCE OF CONTROLS, AND SWP3 DOCUMENTATION THE SUM OF One Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 1,500.00)	$1,500.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
5.	1	LS	**PRE-CONSTRUCTION LOCATION & CONFIRMATION OF EXISTING UTITILIES** INCLUDING COORDINATION WITH TEXAS 811, FRANCHISE UTILITY COMPANIES, AND THE CITY OF NACOGDOCHES, LOCATION AND VERFICATION OF EXACT DEPTH, LOCATION, SIZE, AND MATERIALS OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION ACTVITIES, ALL EQUIPMENT, MATERIALS, LABOR & SUPERINTENDENCE, ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF One Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 1,500.00)	$1,500.00
6.	771	LF	**PRE CONSTRUCTION TV INSPECTION OF EXISTING SANITARY SEWER LINE**, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Four DOLLARS & Zero CENTS Per Unit ($ 4.00)	$3,084.00
7.	0.70	AC	**SITE CLEARING AND GRUBBING**, MAX. 40' WIDTH ALONG ALIGNMENT, NO BURNING OR ON-SITE MULCH DISPOSAL TO BE ALLOWED, COMPLETE IN PLACE, READY FOR CONSTRUCTION, ALL MATERIALS, LABOR & SUPERINTENDENCE, ALL IN ACCORDANCE WITH THE PLANS AND SPECS, THE SUM OF Eighteen Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 18,500.00)	$12,950.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
8.	1	STA	**SURFACE WATER MANAGEMENT,** LOCATION TO BE DETERMINED IN FIELD AS NEEDED, CONTINGENT ON OWNERS FIELD REVIEW AND APPROVAL, COMPLETE IN PLACE, READY FOR SERVICE, INCLUDING SCHEDULING, IMPOUNDMENT, DIVERSION, DRAINING, OR OTHER METHODS OF SURFACE WATER CONTROL TO FACILITATE CONSTRUCTION OF IMPROVEMENTS, INCLUDING COMPLIANCE WITH SW3P, EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Two Thousand Eight Hundred DOLLARS & Zero CENTS Per Unit ($ 2,800.00)	$2,800.00
9.	1	STA	**DESIGN INSTALLATION AND OPERATION OF WELL POINT SYSTEM OR OTHER APPROVED METHOD OF GROUND WATER CONTROL,** LOCATION TO BE DETERMINED IN FIELD AS NEEDED, CONTINGENT ON OWNERS FIELD REVIEW AND APPROVAL, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Two Thousand Eight Hundred DOLLARS & Zero CENTS Per Unit ($ 2,800.00)	$2,800.00
10.	1	LS	**BYPASS PUMPING,** PUMPING OR PIPING TO KEEP LINE IN SERVICE, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE 24/7 SUPERVISION, AND BACKUP PUMP, EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Two Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 2,500.00)	$2,500.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
11.	771	LF	**PIPE BURST EXISTING 6" SANITARY SEWERLINE WITH NEW 8" SANITARY SEWERLINE**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, BACKFILLING, SURFACE RESTORATION, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Forty Two DOLLARS & Zero CENTS Per Unit ($ 42.00)	$32,382.00
12.	7	EA	**REMOVE EXISTING CONCRETE MANHOLE, AND REPLACE WITH NEW 4' DIA. CONCRETE MANHOLE**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, FOUNDATION, BACKFILLING, SURFACE RESTORATION, PAVEMENT REPAIR ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Seven Thousand Eight Hundred DOLLARS & Zero CENTS Per Unit ($ 7,800.00)	$54,600.00
13.	1	EA	**SANITARY SEWER SERVICE RECONNECT**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, BACKFILLING, SURFACE RESTORATION, PAVEMENT REPAIR, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Nine Hunded DOLLARS & Zero CENTS Per Unit ($ 900.00)	$900.00

ITEM	QUANTITY	UNIT	DESCRIPTION & UNIT PRICE (FILL IN UNIT PRICE IN SCRIPT & NUMBERS)	TOTAL PRICE
14.	1	EA	**REMOVE AND REPLACE AERIAL CREEK CROSSING, INCLUDING CONCRETE PIPE ANCHORS**, FURNISHED & INSTALLED, COMPLETE IN PLACE, READY FOR SERVICE, ALL FITTINGS, EQUIPMENT, INCIDENTALS, BACKFILLING, SURFACE RESTORATION, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING ALL IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Seven Thousand Five Hundred DOLLARS & Zero CENTS Per Unit ($ 7,500.00)	$7,500.00
15.	771	LF	**POST CONSTRUCTION TV INSPECTION OF COMPLETED SANITARY SEWER LINE**, PAID FOR ONLY ON ENGINEER/OWNER APPROVAL, COMPLETE IN PLACE, READY FOR SERVICE, TO INCLUDE EQUIPMENT, INCIDENTALS, ALL MATERIALS, LABOR & SUPERINTENDENCE, AND TESTING IN ACCORDANCE WITH THE PLANS & SPECS, THE SUM OF Three DOLLARS & Zero CENTS Per Unit ($ 3.00)	$2,313.00
16.	1	LS	**OWNER'S ALLOWANCE FOR MATERIALS TESTING.** CONTRACTOR SHALL PAY ALL NECESSARY LAB FEES, TO BE REIMBURSED THROUGH THIS BID ITEM. ONLY DIRECT INVOICES FROM THE LAB WILL BE REIMBURSED, THE SUM OF Five Thousand DOLLARS & Zero CENTS Per Unit ($ 5,000.00)	$5,000.00
17.	1	LS	**OWNER'S ALLOWANCE FOR FIELD CHANGES** - TO BE DISBURSED ONLY WITH SPECIFIC WRITTEN APPROVAL OF OWNER, THE SUM OF Twenty Five Thousand DOLLARS & Zero CENTS Per Unit ($ 25,000.00)	$25,000.00
			Total Alternate Bid 3 - Segment 27 (Sum of Items 1-17)	$165,279.00

BID FORM
City of Nacogdoches
ARPA Collection System Improvements

Awarded project may include base bid, alternate bids, or any combination of individual projects therein.

Final bid pricing will be tabulated by the Engineer. Bidder will be notified of errors or discrepancies in final bid tabulation.

Bid bond, and completed Bid Form with attachments must be included with bid.

Addenda Acknowledged (list numbers) Addenda No. 1 Acknowledge

TOTAL BASE BID – Segment 31 $799,634.00

Name of Bidder: Capital Underground Utilities, LLC

Address: 918 Tassell St Houston, TX 77076

Phone: 281-827-2133

Email: hl_capitalunderground@yahoo.com

Signature:

SCHAUMBURG & POLK, PC

ADDENDUM NO. 1

DATE: 03/19/2025

PROJECT: City of Nacogdoches, Texas
ARPA Collection System Improvements

The following addendum to the Contract Documents is hereby incorporated into the project and shall be equally as binding as the original Contract Documents.

The contract documents, plans, and specifications for the above project are modified as follows:

Plans and Specifications.

1. SDR 21 Certa-Flo PVC pipe is allowed pipe material in addition to IPS SDR – 17 HDPE.

If you have questions concerning this Addendum No. 1, please contact Travis Reed, P.E. of Schaumburg & Polk, Inc., 320 S Broadway Ave Suite 200, Tyler, Texas 75702 (903) 595-3913.

All bidders shall acknowledge receipt of this Addendum No. 1 by indicating in the appropriate space on the bid proposal and/or including a copy with your submitted bid.

End of Addendum No. 1
(1 Page Addendum)

320 S. Broadway Ave, Ste 200 | Tyler, TX 75702
P: 903.595.3913 | F: 903.595.2093
www.SPI-ENG.com
TBPE Firm No. 000520

MERCHANTS BONDING COMPANY™
MERCHANTS NATIONAL BONDING, INC. P.O. BOX 14498, DES MOINES, IOWA 50306-3498
PHONE: (800) 678-8171 FAX: (515) 243-3854

BID BOND
PUBLIC WORK

KNOW ALL PERSONS BY THESE PRESENTS:

That Capital Underground Utilities

(hereinafter called the Principal) as Principal, and the Merchants National Bonding, Inc.

(hereinafter called Surety), as Surety, are held and firmly bound to

City of Nacogdoches

(hereinafter called the Obligee) in the full and just sum of (5% G.A.B.)

Five Percent of the Greatest Amount Bid Dollars

good and lawful money of the United States of America, to the payment of which sum of money well and truly to be made, the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Signed and dated this 27th day of March, 2025.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Obligee shall make any award to the Principal for

City of Nacogdoches ARPA Collection System Improvements Bid No. 25-10-120

according to the terms of the proposal or bid made by the Principal therefore, and the Principal shall duly make and enter into a contract with the Obligee in accordance with the terms of said proposal or bid and award, and shall give bond for the faithful performance thereof with the Merchants National Bonding, Inc., as Surety, or with other Surety or Sureties approved by the Obligee; or if the Principal shall, in case of failure to do so, pay to the Obligee the damages which the Obligee may suffer by reason of such failure, not exceeding the penalty of this bond, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect.

IN TESTIMONY WHEREOF, the Principal and Surety have caused these presents to be duly signed and sealed.

Witness:

Capital Underground Utilities
Principal

By

Attest:

Merchants National Bonding, Inc.

By

Mireli Stanford, Surety Witness

Megan Liescheski, Attorney-in-Fact

CON 0333 (2/15)

MERCHANTS BONDING COMPANY™

POWER OF ATTORNEY

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa, d/b/a Merchants National Indemnity Company (in California only) (herein collectively called the "Companies") do hereby make, constitute and appoint, individually,

Brian P Herrera; Jacob Strader; Jordan Henderson; Justin McQuain; Megan Liescheski; Mireli Stanford

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and April 27, 2024 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015 and amended on April 27, 2024.

"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and aut hority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 29th day of July , 2024 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) INCORPORATED -o- 1933

MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.
d/b/a MERCHANTS NATIONAL INDEMNITY COMPANY

By Larry Taylor

President

STATE OF IOWA
COUNTY OF DALLAS ss.

On this 29th day of July 2024 , before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.

NOTARIAL SEAL IOWA

Penni Miller
Commission Number 787952
My Commission Expires
January 20, 2027

Notary Public

(Expiration of notary's commission does not invalidate this instrument)

I, Elisabeth Sandersfeld, Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 27th day of March , 2025 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) INCORPORATED -o- 1933

Secretary

POA 0018 (6/24)

MERCHANTS BONDING COMPANY℠
MERCHANTS NATIONAL BONDING, INC. • P.O. BOX 14498 • DES MOINES, IOWA 50306-3498
PHONE: (800) 678-8171 • FAX: (515) 243-3854

Have a complaint or need help?

If you have a problem with a claim or your premium, call your insurance company or HMO first. If you can't work out the issue, the Texas Department of Insurance may be able to help.

Even if you file a complaint with the Texas Department of Insurance, you should also file a complaint or appeal through your insurance company or HMO. If you don't, you may lose your right to appeal.

To get information or file a complaint with your insurance company or HMO:

Merchants National Bonding, Inc.
Call: Compliance Officer at (800) 671-8171
Toll-free: (800) 671-8171
Email: regulatory@merchantsbonding.com
Mail: P.O. Box 14498, Des Moines, Iowa 50306-3498

To get insurance information you may also contact your agent:

M Surety Services
Call: (832) 567-8906
Mail: 5728 Root Rd, Spring, TX 77389

The Texas Department of Insurance
To get help with an insurance question or file a complaint with the state:
Call with a question: 1-800-252-3439
File a complaint: www.tdi.texas.gov
Email: ConsumerProtection@tdi.texas.gov
Mail: Consumer Protection, MC: CO-CP, Texas Department of Insurance,
PO Box 12030, Austin, TX 78711-2030

¿Tiene una queja o necesita ayuda?

Si tiene un problema con una reclamación o con su prima de seguro, llame primero a su compañía de seguros o HMO. Si no puede resolver el problema, es posible que el Departamento de Seguros de Texas (Texas Department of Insurance, por su nombre en inglés) pueda ayudar.

Aun si usted presenta una queja ante el Departamento de Seguros de Texas, también debe presentar una queja a través del proceso de quejas o de apelaciones de su compañía de seguros o HMO. Si no lo hace, podría perder su derecho para apelar.

Para obtener información o para presentar una queja ante su compañía de seguros o HMO: Merchants National Bonding, Inc.

Llame a: Compliance Officer al (800) 671-8171
Teléfono gratuito: (800) 678-8171
Correo electrónico: regulatory@merchantsbonding.com
Dirección postal: P.O. Box 14498 , Des Moines, Iowa, 50306-3498

El Departamento de Seguros de Texas
Para obtener ayuda con una pregunta relacionada con los seguros o para presentar una queja ante el estado:

Llame con sus preguntas al: 1-800-252-3439
Presente una queja en: www.tdi.texas.gov
Correo electrónico: ConsumerProtection@tdi.texas.gov
Dirección postal: Consumer Protection, MC: CO-CP, Texas Department of Insurance, PO Box 12030, Austin, TX 78711-2030

CONTRACTOR DATA SHEET

GENERAL/SUB-CONTRACTOR'S EXPERIENCE
AND
DATA INFORMATION

Name of Company: Capital Underground Utilities, LLC

Company Years in Business: Two Years & Five Months

List Municipal Projects
(Similar Projects in Size and Scope Completed in Last Five Years)

Project	Municipality	$ Amount	Type	Date
Quail Creek MUD	Quail Creek MUD	$215,713.50	Pipe Bursting	10/24
2021 ARPA Sewer Improve.	City of Garrison	$173,779.00	Pipe Bursting	12/24
Utility Improvements For Cardinal Ln	City of Harker Heights	$679,345.00	Pipe Bursting	12/24
CDBG Sagebrush Sanitary	City of Magnolia	$115,195.00	Pipe Bursting	08/24
SS Phase 7 Rehab	Malcolmson	$262,261.00	Pipe Bursting	05/24
Newport MUD SS Phase 3	Newport MUD	$389,370.50	Pipe Bursting	07/23

Superintendent & Project Manager Information
Include Superintendent proposed for the project, years of experience as superintendent, project manager proposed for the project, and years experience as project manager

Superintendent	Years Experience	Projects
Raymundo Roque		
Please See Attached For Resume		

Project Manager	Years Experience	Projects
Hugo Salazar		
Please See Attached For Resume		

Hugo Salazar

Project Manager

832-396-5750
hs_capitalunderground@yahoo.com
918 Tassell St, Houston, TX 77076

Experience

General Labor *Lopez Utilities Contractor, LLC*
January 2014- October 2016

Basic Genaral Labor Duties

Leadman/ Assistant Project Manager *MMG Contractors, LLC*
October 2016- September 2020

Coordinating with foreman/ superintendent over daily construction activities.

Safety Manager Texas *Pride Utilities, LLC*
January 2021- June 2021

Daily visitations of jobsite to see if the follow safety procedures. Daily toolbox meetings.

Operations Manager *Pm Construction*
August 2021- July 2023

Coordinate with project manager, foreman's, superintendents, Dispatcher for daily construction needs.

Project Manager *Capital Underground Utilities, LLC*
July- 2023- Present

Daily observations of job, maintaining daily communication with inspectors, engineers.

Education

January 2016- May 2019
Associate degree, Construction Management, San Jacinto College

Skills

Project management	Data analysis	Communication
Organization	Problem-solving	Management

Raymundo Roque

Construction Foreman

832-866-4862
Rr_capitalunderground@yahoo.com
918 Tassell St
Houston, TX 77076

Experience

Foreman *Horseshoe Construction, LLC*
January 2018- September 2020

In charge of a pipe bursting crew. Did projects in Arkansas, Louisiana and Texas.

Superintendent Texas Pride Utilities, LLC
September 2020- October 2021

Supervise 3 pipe bursting crews around the State of Texas. In communication with project managers and inspectors.

Education

July 2012- July 2014
Instituto Tecnologico Superior De Iraupuato

Skills

Machine Operator	Bilingual	Communication
Basic Labor Duties	Problem-solving	Management

References: Name 5 projects of similar work, giving owner's name, representative's name, project engineer's name, and telephone numbers for each

1. Daniel Jimenez		Matt Glaze
Quail Creek MUD		Urban Engineering
Public Works Director		Engineer
(361) 550-9760		(979) 637-1536

2. Jack Brown		Jim Owens
City of Garrison		GLS Engineering
City Inspector		Engineer
(936) 645-3328		(936) 637-4900

3. Dwyane Pope		Travis Davis
City of Carthage		Two Fifteen Consulting
City Inspector		Engineer
(903) 754-7101		(903) 658-0171

4. Todd Maxx		Anthony Luke
City of Harker Heights		Walker Partners
City Inspector		Engineer
(254) 291-5239		(254) 910-6750

5. Daniel Chapa		Darren Ridge
City of Wharton		Quiddity Engineering
City Inspector		Engineer
(979) 533-4575		(979) 239-7190

CERTIFICATION OF BID

The undersigned affirms that they are duly authorized to execute this Contract, that this bid has not been prepared in collusion with any other Bidder, and that the contents of this bid have not been communicated to any other Bidder prior to the official opening of this bid. To the extent this Contract is considered a Contract for goods or services subject to § 2270.002 Texas Government Code, Bidder certifies that it: i) does not boycott Israel; and ii) will not boycott Israel during the term of the Agreement. Additionally, the undersigned affirms that the firm is willing to sign the enclosed Standard Form of Agreement (if applicable).

Signed By: _____ Title: Horacio Luna

Typed Name: Horacio Luna Company Name: Capital Underground Utilities, LLC

Phone No: 281-827-2133 Fax No: _____

Email: hl_capitalunderground@yahoo.com

Bid Address:	202 Pilar St Suite 239	Nacogdoches	TX	75961
	P.O. Box or Street	City	State	Zip
Remit Address:	918 Tassell St	Houston	TX	77076
	P.O. Box or Street	City	State	Zip

Federal Tax ID No: 92-0578615

DUNS No: _____

Date: 03/27/2025

CONDITIONS OF AGREEMENT

CONDITIONS OF AGREEMENT

CONTRACT DOCUMENTS

STANDARD SPECIFICATIONS FOR CONSTRUCTION--CITY OF NACOGDOCHES

FACILITIES: All building construction and related installations shall conform to the City's latest adopted editions of the International Building Code, National Electric Code, and the Uniform Plumbing Code and the Nacogdoches Standards for the Design and Construction of Public Improvements. All other City of Nacogdoches codes and ordinances shall also apply.

CIVIL CONSTRUCTION: These specifications shall be used in conjunction with the City of Nacogdoches' Standard Specifications of Water and Sewer Construction and Street Construction and is hereby incorporated by reference. All City of Nacogdoches codes and ordinances shall apply.

Any discrepancies between the City standards and these specifications shall be clarified per the instructions in Paragraph 9.0, "INTERPRETATIONS AND ADDENDA" in the instructions to Bidders.

GENERAL CONDITIONS OF AGREEMENT

The Standard Form of Agreement between Owner and Contractor shall be governing conditions of this contract.

SPECIAL PROVISIONS OF AGREEMENT

A. MEASUREMENTS: All work not specifically set forth as a pay item in the Proposal shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the various unit prices listed in the Proposal.

B. QUANTITIES: Where unit quantities are shown on each bid item of the Proposal, they shall be construed to represent approximate quantities of Work to be completed. Final quantities will be determined by measurement on the site of the completed Work. Work performed outside of specified limits will not be included in final measurement. Bidders are hereby notified that no incidental items of the Work will be paid for unless it is listed in the Proposal form as a pay item.

C. EXPLOSION, COLLAPSE AND UNDERGROUND HAZARDS (XCU): Contracts where trenching depths exceed twelve (12) feet shall require additional coverage for the following General Liability hazards:

Explosion	Applies to blasting operations
Collapse	Applies to excavation and grading work adjacent to structure

Underground	Applies to excavation, burrowing, trenching, tunneling, etc. For example, severing an electrical line during excavation operations.

An additional premium may be assessed by contractor's insurance provider. Successful contractor is responsible for assessing depth based on plans and specifications contained herein.

D. TRAFFIC CONTROL: When work is performed in or immediately adjacent to a public street right-of-way, the Contractor shall submit to the City Engineer a traffic control plan for each public right-of-way he enters prior to the pre-construction meeting. This plan shall be in conformance to the Texas Manual on Uniform Traffic Control Devices. Once reviewed, the plans will be returned to the Contractor with comments.

Approved Traffic Control Plans shall be in the possession of the contractor on site during all work within the designated right of way.

E. MATERIAL STAGING: Contractor is responsible for identifying and securing a suitable site for the storage of materials and other construction related items unless such a site is specifically identified in the plans.

F. PERMITS: Contractor will be required to get permits pursuant to contract documents; however, the city will waive the fees.

G. STORM WATER PERMIT: For construction areas disturbing more than one (1) acre of land, Contractor shall provide a Storm Water Pollution Prevention Plan and all related inspections, rain gages, signage, subsidiary to the contract.

H. SURVEY: The Owner will provide a one-time survey staking of key construction points, bench marks, horizontal controls, building corners, or utility appurtenances as deemed necessary by the City Engineer. Additional construction staking, or replacement staking, will be at the contractor's expense.

I. CONTRACTOR PARKING and BATHROOMS: Unless noted otherwise in the bid documents and plans, the installation of temporary bathroom facilities on the site will not be allowed. Parking for construction related vehicles, worker vehicles, and other equipment may be limited at the construction site. The Contractor should anticipate the need to provide an off-site parking subsidiary to the bid price in the contract.

J. FIELD OFFICES: The Contractor will not be required to maintain a field office at the construction site. In the event that the Contractor wishes to have a temporary project office, approval will be required by the Owner. The cost for the installation of all utilities will be paid by the Contractor.

K. DRAINAGE AND EROSION CONTROLS: The contractor will be responsible for designing, installing and maintaining interim drainage and erosion controls for the construction site.

Surface drainage channels, culverts, or other features will be maintained by the contractor in such a way to minimize the impacts from storm water to offsite properties.

L. CONTRACT FORMS, BONDS AND CERTIFICATES: The Standard Form of Agreement bond forms listed below will be made a part of the executed contract documents and are made a part of these specifications:

CITY OF NACOGDOCHES STANDARD FORM OF AGREEMENT BETWEEN THE OWNER AND THE CONTRACTOR

PERFORMANCE BOND

PAYMENT BOND

These forms are not to be filled in by the bidder at the time of submitting his proposal.

STANDARD FORM OF AGREEMENT FOR CONSTRUCTION

CITY OF NACOGDOCHES
CONSTRUCTION AGREEMENT

This Agreement is entered into by and between the **City of Nacogdoches**, a Texas home-rule municipal corporation (the "City") and **Capital Underground Utilities** (the "Contractor"), for **Construction Services for ARPA Collection System Improvements Project** located in Nacogdoches, Texas (the "Project").

1. DEFINITIONS

1.01. Calendar Day. A "calendar day" is any day of the week or month, no days being excepted.

1.02. City. Whenever the word "City" is used, it shall mean and be understood as referring to the City of Nacogdoches, Texas.

1.03. City's Representative. Whenever the words "City's Representative" or "Representative" are used, it shall mean and be understood as referring to the City Manager or his delegate, who shall act as City's agent. The City's Representative may inspect and issue instructions but shall not directly supervise the Contractor.

1.04. Contract Amount. The term "Contract Amount" shall mean the amount of Contractor's lump sum base bid proposal, together with all alternates, as accepted by the City in accordance with the Contractor's Proposal. In the case of a unit price contract, Contract Amount shall mean the sum of the product of all unit prices times the respective estimated final quantities of work, for all base bid and alternates, as accepted by the City.

1.05. Contract Documents. The term "Contract Documents" shall mean those documents listed in Paragraph 2.01.

1.06. Contractor. Whenever the word "Contractor" is used, it shall mean the person(s), partnership, or corporation who has agreed to perform the work embraced in this Agreement and the other Contract Documents.

1.07. Extra Work. The term "Extra Work" shall mean and include work that is **not** covered or contemplated by the Contract Documents but that may be required by City's Representative and approved by the City in writing ***prior*** to the work being done by the Contractor.

1.08. Final Completion. The term "Final Completion" shall mean that all the work has been completed, all final punch list items have been inspected and satisfactorily completed, all payments to materialmen and subcontractors have been made, all documentation and warranties have been submitted, and all closeout documents have been executed and approved by the City.

1.09. Interpretation of Phrases. Whenever the words "directed", "permitted", "designated", "required", "considered necessary", "prescribed", or words of like import are used, it is understood that the direction, requirement, permission, order, designation, or prescription of City's Representative is intended. Similarly, the words "approved", "acceptable", "satisfactory", or words of like import shall mean approved by, accepted by, or satisfactory to City's Representative.

1.10. Nonconforming work. The term "nonconforming work" shall mean work or any part thereof that is rejected by City's Representative as not conforming with the Contract Documents.

1.11. Parties. The "parties" are the City and the Contractor.

1.12. Project. The term "Project" shall mean and include all that is required to obtain a final product that is acceptable to the City. The term "work" shall have like meaning.

1.13. Subcontractor. The term "subcontractor" shall mean and include only those hired by and having a direct contact with Contractor for performance of work on the Project. The City shall have no responsibility to any subcontractor employed by a Contractor for performance of work on the Project, and all subcontractors shall look exclusively to the Contractor for any payments due.

1.14. Substantially Completed. The term "Substantially Completed" means that in the opinion of the City's Representative the Project, including all systems and improvements, is in a condition to serve its intended purpose but still may require minor miscellaneous work and adjustment. Final payment of the Agreement Price, including retainage, however, shall be withheld until Final Completion and acceptance of the work by the City. Acceptance by the City shall not impair or waive any warranty obligation of Contractor.

1.15. Work. The term "work" as used in this Agreement shall mean and include all that is required herein to obtain a final product that is acceptable to the City. The term "Project" shall have like meaning. This Project includes the following: **Construction Services for ARPA Collection System Improvements Project** located in Nacogdoches, Texas.

1.16. Working Day. A "working day" means any day not including Saturdays, Sundays, or legal holidays.

2. CONTRACT DOCUMENTS

2.01. The Contract Documents and their priority shall be as follows:

2.01.01. This signed Agreement
2.01.02. Addendum to this Agreement
2.01.03. General Conditions
2.01.04. Special Conditions
2.01.05. Technical specifications
2.01.06. Drawings
2.01.07. Instructions to Bidders and any other notices to Bidders or Contractor
2.01.08. Performance bond, Payment bonds, Bid bonds and Special bonds
2.01.09. Contractor's Proposal

2.02. Where applicable, the Contractor will be furnished three (3) sets of plans, drawings, specifications, and related Contract Documents for its use during construction. Plans and specifications provided for use during construction shall be furnished directly to the Contractor only.

2.03. The Contractor shall distribute copies of the plans and specifications to suppliers and subcontractors as necessary. The Contractor shall keep one (1) copy of the plans and specifications accessible at the work

site with the latest revisions noted thereon. For proper execution of the work contemplated by this Agreement, additional sets of drawings, plans and specifications may be purchased by the Contractor.

2.04. All drawings, specifications, and copies thereof furnished by the City shall not be re-used on other work, and with the exception of one (1) copy of the signed Contract Documents, all documents, including sets of the plans and specifications and "as built" drawings, are to be returned to the City on request at the completion of the work. All Contract Documents, models, mockups, or other representations are the property of the City. In the event of inconsistencies within or between parts of the Contract Documents, the Contractor shall (1) provide the better quality or greater quantity of Work, or (2) comply with the more stringent requirement, either or both in accordance with the City's interpretation. The terms and conditions of this Clause 2.04, however, shall not relieve the Contractor of any of the obligations set forth in Paragraphs 8.01. and 8.02.

3. AWARD OF CONTRACT

3.01. Upon the award of the contract by the City Council, the parties shall execute this Agreement, and the Contractor shall deliver to City's Representative all documents, bonds, and certificates of insurance required herein.

3.02. **Time is of the essence in this Agreement.** Accordingly, the Contractor shall be prepared to perform the work in the most expedient and efficient possible manner in order to complete the work by the times specified in this Agreement for Substantial Completion and Final Completion. In addition, the Contractor's work on the Project shall be commenced on the date to be specified in the notice to proceed. The notice to proceed may be given by oral notification or set by City's Representative at the post-contract award conference. **The notice to proceed may not be given, nor may any work be commenced, until this Agreement is fully executed and complete, including all required exhibits and other attachments, particularly those required under Paragraphs 27 and 28 (Insurance & Bonds).**

3.03. **Contract Amount.** Except in the event of a duly authorized change order approved by the City as provided in this Contract, and in consideration of the Contractor's final completion of all work in conformity with this Contract, the City shall pay the Contractor an amount not to exceed **One Million Three Hundred Five Thousand Nine Hundred Two and 00/100 Dollars ($ 1,305,902.00)**.

4. CITY'S REPRESENTATIVE

4.01. The Contractor shall forward all communications, written or oral, to the City through the City's Representative.

4.02. The City's Representative may periodically review and inspect the work of the Contractor.

4.03. The City's Representative shall appoint, from time to time, such subordinate supervisors or inspectors as City's Representative may deem proper to inspect the work performed under this Agreement and ensure that said work is performed in accordance with the plans and specifications.

4.04. The Contractor shall regard and obey the directions and instructions of City's Representative, any subordinate supervisors or inspectors appointed by the City provided such directions and instructions are consistent with the obligations of this Agreement.

4.05. Should the Contractor object to any orders by any subordinate supervisor or inspector, the Contractor may, within two (2) days from receipt of such order, make written appeal to City's Representative for his decision.

5. INDEPENDENT CONTRACTOR

5.01. In all activities or services performed hereunder, the Contractor is an independent contractor and not an agent or employee of the City. The Contractor, as an independent contractor, shall be responsible for the final product contemplated under this Agreement. Except for materials furnished by the City, the Contractor shall supply all materials, equipment and labor required for the execution of the work on the Project. The Contractor shall have ultimate control over the execution of the work under this Agreement. The Contractor shall have the sole obligation to employ, direct, control, supervise, manage, discharge, and compensate all of its employees and subcontractors, and the City shall have no control of or supervision over the employees of the Contractor or any of the Contractor's subcontractors except to the limited extent provided for in this Agreement.

5.02. The Contractor shall retain personal control and shall give its personal attention to the faithful prosecution and completion of the work and fulfillment of this Agreement. The subletting of any portion or feature of the work or materials required in the performance of this Agreement shall not relieve the Contractor from its obligations to the City under this Agreement. The Contractor shall appoint and keep on the Project during the progress of the work a competent Project Manager and any necessary assistants, all satisfactory to City's Representative, to act as the Contractor's representative and to supervise its employees and subcontractors. All directions given to the Project Manager shall be binding as if given to the Contractor. Adequate supervision by competent and reasonable representatives of the Contractor is essential to the proper performance of the work, and lack of such supervision shall be grounds for suspending the operations of the Contractor and is a breach of this Agreement.

5.03. Unless otherwise stipulated, the Contractor shall provide and pay for all labor, materials, tools, equipment, transportation, facilities, and drawings, including engineering, and any other services necessary or reasonably incidental to the performance of the work by the Contractor. It shall be the responsibility of the Contractor to furnish a completed work product that meets the requirements of the City. Any additional work, material, or equipment needed to meet the intent of this specification shall be supplied by the Contractor ***without*** claim for additional payment, even though not specifically mentioned herein.

5.04. Any injury or damage to the Contractor or the Project caused by an act of God, natural cause, a party or entity not privy to this Agreement, or other force majeure shall be assumed and borne by the Contractor.

6. DISORDERLY EMPLOYEES

The Contractor agrees to employ only orderly and competent employees skillful in the performance of the type of work required, and agrees that whenever City's Representative shall inform the Contractor in writing that any person or persons on the work are, in his opinion, incompetent, unfaithful, or disorderly, such person or person shall be discharged from the work and shall not again be re-employed on the site or the Project without City's Representative's written permission.

7. HOURS OF WORK

The Contractor may work Monday through Friday from 7 a.m. to 6 p.m., exclusive of Saturdays, Sundays, or legal holidays. The Contractor may work overtime, weekends, and holidays only when approved in advance by the City's Representative. The time for Substantial Completion shall not be affected in any way by inclusion of this section or by the City's consent or lack of consent to work outside of the times specified in this Agreement.

8. NATURE OF THE WORK

8.01. It is understood and agreed that the Contractor has, by careful examination, studied and compared the various Drawings and other Contract Documents, satisfied itself as to the nature and location of the work, the conditions of the ground and soil, the nature of any structures, the character, quality, and quantity of the material to be utilized, the character of equipment and facilities needed for and during the prosecution of the work, the time needed to complete the work, Contractor's ability to meet all deadlines and schedules required by this Agreement, the general and local conditions, including but not limited to weather, and all other matters that in any way affect the work under this Agreement. These obligations are for the purpose of facilitating construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, any errors, inconsistencies or omissions discovered, or which reasonably should have been discovered by the Contractor shall be reported promptly to the City as a request for information in such form as the City may require. However, the Contractor shall not perform any act or do any work on the Project that places the safety of persons at risk or potentially damages materials or equipment used in the Project, and the Contractor shall do nothing that would render any test or tests erroneous.

8.02. Any design errors or omissions noted by the Contractor during this review shall be reported promptly to the City, but it is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents. The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations, but any nonconformity discovered by or which reasonably should have been discovered or made known to the Contractor shall be reported promptly to the City.

8.03. If the Contractor fails to perform the obligations of Paragraphs 8.01. and 8.02., the Contractor shall pay such costs and damages to the City as would have been avoided if the Contractor had performed such obligations. The Contractor shall not be liable to the City for damages resulting from errors, inconsistencies or omissions in the Contract Documents or for differences between field measurements or conditions and the Contract Documents unless the Contractor recognized or reasonably should have recognized such error, inconsistency, omission or difference and knowingly failed to report it to the City.

9. POST-AGREEMENT AWARD MEETINGS

9.01. Prior to the commencement of the work, the parties shall meet and attend a post-agreement award meeting at the time and place determined by City's Representative. At the post-agreement award meeting, the parties shall meet, discuss, and finalize all schedules, including commencement date, and/or specifications submitted for review. No later than ten (10) days prior to the post-agreement award meeting, the Contractor shall submit to City's Representative the following documents:

(a) Schedules of work contemplated, including the starting and ending date, as well as an indication of the completion of stages of work hereunder.

(b) The names and addresses of all proposed subcontractors in writing.

(c) Schedules of the starting and ending dates of subcontractors and the scope of work contemplated for subcontractors.

(d) Name, local office, phone number and addresses and, home phone numbers for the Contractor and its Project Superintendent/Manager.

(e) For construction projects, four (4) copies of all shop and/or setting drawings or schedules for the submission thereof.

(f) Where applicable, materials procurement schedules and material supplier names, addresses and phone numbers.

9.02. The City's Representative, within five (5) working days after the initial post-agreement award conference or any other meetings, may submit minutes of the meeting to the Contractor. The Contractor shall thereafter have five (5) working days to review the minutes and make its objections, changes, or reductions thereto in writing. The Contractor shall thereafter sign the minutes and promptly return them to City's Representative. Where there is disagreement, City's Representative will make the final determination.

10. PROGRESS OF WORK

10.01. Unless otherwise specifically provided, the Contractor shall prosecute its work at such time and sessions, in such order of precedence, and in such manner as shall be most conducive to the economy of the Project; provided, however, that the order and time of prosecution shall be such that the Project shall be Substantially Completed in accordance with this Agreement, the plans and specifications, and within the time of completion designated in the schedules agreed upon by the parties.

10.02. Further, the parties shall be subject to the following:

(a) The Contractor shall submit a progress schedule and payment schedule of the work contemplated by this Agreement at the initial post-agreement award meeting and subsequent meetings.

(b) City's Representative shall be entitled to make objections to the Contractor's schedule submitted herein. The Contractor shall promptly resubmit a revised schedule to City's Representative.

(c) The Project Superintendent/Manager shall coordinate its activities with City's Representative. If required by the City, the Contractor shall provide a weekly schedule of planned activities, which may be reviewed on a daily basis.

(d) The Contractor shall submit, at such time as may reasonably be requested by City's Representative, additional schedules that shall list the order in which the Contractor proposes to carry on the work with dates at which the Contractor will start the several parts of the work and the estimated dates of completion of the several parts.

(e) The Contractor shall attend additional meetings called by City's Representative upon twenty-four (24) hours written notice unless otherwise agreed in writing by the parties.

(f) When the City is having other work done, either by agreement or by its own force, City's Representative may direct the time and manner of work done under this Agreement so that conflicts will be avoided and the various work being done by and for the City shall be coordinated.

(g) In the event that it is determined by the City that the progress of the work is not in accordance with the approved progress and payment schedule, the City may so inform the Contractor and require the Contractor to take such action as is necessary to insure completion of the Project within the time specified.

10.03. The process of approving Contractor's schedules and updates to Contractor's schedules shall not constitute a warranty by the City that any non-Contractor milestones or activities will occur as set out in the Contractor's schedules. Approval of a contractor's schedules does not constitute a commitment by the City to furnish any City-furnished information or material any earlier than the City would otherwise be obligated to furnish that information or material under the Contract Documents. Failure of the Work to proceed in the sequence scheduled by Contractor shall not alone serve as the basis for a Claim for additional compensation or time. In the event there is interference with the Work which is beyond its control, Contractor shall attempt to reschedule the Work in a manner that will hold the additional time and costs beyond its control to a minimum. The Contractor shall monitor the progress of the Work for conformance with the requirements of the construction schedules and shall promptly advise the City of any delays or potential delays. In the event any schedule indicates any delays, the Contractor shall propose an affirmative plan to correct the delay. In no event shall any schedule constitute an adjustment in the Contract Time, any Milestone Date or the Contract Sum unless any such adjustment is agreed to by the City and authorized pursuant to Change Order.

10.04. **Work Stoppage.** If in the judgment of either the City or City's Representative any of the work or materials furnished is not in strict accordance with this Agreement or any portion of the work is being performed so as to create a hazardous condition, they may, in their sole discretion, order the work of the Contractor or any sub contractor wholly or partially stopped until any objectionable person, work, or material is removed from the premises. Such stoppage or suspension shall neither invalidate any of the Contractor's performance obligations under this Agreement, including the time of performance and deadlines therefore, nor will any extra charge be allowed the Contractor by reason of such stoppage or suspension.

11. SITE CONDITIONS AND MANAGEMENT

11.01. Where the Contractor is working around or in existing structures, it shall verify conditions at the site, including but not limited to, door openings and passages. Any items constructed or manufactured off-site or outside of buildings shall be done so that they are not too bulky for existing facilities. The Contractor shall provide special apparatus as required to handle any such items. All special handling equipment charges shall be at the Contractor's expense. Further, Contractor shall include in its price for the Work, all labor, materials, equipment and/or engineering services required to protect the adjacent properties and/or structures from damage due to performance of the Work.

11.02. The Contractor shall be responsible for all power, light, and water required to perform the work.

11.03. Throughout the progress of the work, the Contractor shall keep the working area free from debris of all types, and remove from premises all rubbish, resulting from any work being done by him. At the completion of the work, the Contractor shall leave the premises in a clean and finished condition. Any failure to do so may be remedied and charged back to the Contractor.

11.04. **Layout of Work.** Except as specifically provided herein, the Contractor shall lay out all work in a manner acceptable to City's Representative in accordance with applicable City of Nacogdoches codes and ordinances. City's Representative will review the Contractor's layout of all structures and any other layout work done by the Contractor at the construction meeting, or at the Contractor's request, but this review does not relieve the Contractor of the responsibility of accurately locating all work in accordance with the plans and specifications.

11.05. **Lines and Grades.** All lines and grades shall be furnished by the Contractor. Benchmarks and control stakes have been provided by the City's Representative. All benchmarks and control stakes shall be carefully preserved by the Contractor. In case of destruction or removal of the same by the Contractor, its subcontractors, or employees, such stakes, marks, etc. shall be replaced by the Contractor at the Contractor's expense. If the Contractor fails to do so, the City may do so and charge back the Contractor. Additional construction staking as needed for the work, including lines and grades, shall be the sole responsibility of the Contractor, and the Contractor shall receive no extra time or compensation therefor.

11.06. **Contractor's Structures.** The building or locating of structures for housing men or the erection of tents or other forms of protection will be permitted only at such places as City's Representative shall permit. The Contractor shall not damage the property where such structures are allowed and shall at all times maintain sanitary conditions in and about such structures in a manner satisfactory to the City. The City may charge the Contractor for any damage or injury to the City, its property, or third persons as a result of the location or use of such structures.

11.07. The Contractor and any entity over whom the Contractor has control shall not erect any sign on the Project site without the prior written consent of the City.

11.08. City may have other work related to the Project performed at the Project site during the time the Work is performed. Contractor should schedule its Work to coordinate with the work of other contractors and utilities with the understanding that some of that work may be performed at times other than as set out in the Contract Documents or as otherwise anticipated. City will endeavor to have such other work performed so as not to unduly interfere with Contractor's performance when Contractor notifies City of specific reasonable needs well in advance of those needs and where it is possible to do so. Although Contractor should anticipate some delays and interference to its sequence of Work because of work by other contractors and utilities, and will not be entitled to either an extension of time or additional compensation because of them, in the event of substantial delay caused by another contractor or a utility, after advance notice of its needs by Contractor, Contractor will be entitled to make a claim for an extension of time as provided herein.

11.09. When two or more contractors, including Contractor, are employed on related or adjacent work or obtain materials from the same material source, or when work must be completed by one contractor before another can begin, each shall conduct his operations in such a manner as not to cause any unnecessary delay or hindrance to the other. Each contractor, including Contractor if applicable, shall be responsible to the other for all damage to work, to persons, or to property caused to the other by his operations, and for loss caused the other due to unreasonable or unjustified delays or failure to finish the work or portions thereof, or furnish materials within the time requested. Should Contractor cause damage to the work or property of any

separate contractor at the Project site, or should any claim arising out of Contractor's separate contractor at the Project site, or should any claim arising out of Contractor's performance of the Work at the Project site be made by any separate contractor against Contractor, City or other consultants, or any other person, Contractor shall promptly attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute. **Contractor shall, to the fullest extent permitted by applicable laws, indemnify and hold City harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of architects, attorneys and other professionals and court costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any separate contractor against City to the extent based on a claim arising out of Contractor's negligence.**

12. MATERIALS

12.01. Materials or work described in words that when so applied have well-known technical or trade meaning shall be held to refer to such recognized standards. All work shall be done and all materials furnished in strict conformity with this Agreement, the other Contract Documents, and recognized industry standards. When specific products, systems or items of equipment are referred to in the Contract Documents, any ancillary devices necessary for connecting the products, systems or items of equipment shall also be provided. When standards, codes, manufacturer's instructions and guarantees are required by the Contract Documents, the current edition at the time of Contract execution shall apply, unless another edition is specified in the Contract Documents. References to standards, codes, manufacturer's instructions and guarantees shall apply in full, except (1) they do not supersede more stringent standards set out in the Contract Documents, and (2) any exclusions or waivers that are inconsistent with the Contract Documents do not apply.

12.02. All materials shall be approved by the City prior to purchase by the Contractor. Unless otherwise specified herein, the Contractor shall purchase all materials and equipment outright and shall not subject the materials and equipment utilized in the Project to any conditional sales agreement, bailment, lease, or other agreement reserving unto seller any right, title, or interest therein. Title to all materials, but not risk of loss, shall pass to the City upon delivery to the Project.

12.03. Where the City deems it necessary to supply materials, it may furnish to the Contractor the list of materials set forth in the attached "List of City Furnished Materials". Upon receipt of said materials, the Contractor shall immediately furnish to the City a written receipt. Moreover, the Contractor shall, on behalf of the City, accept delivery of the materials set forth in the attached "List of Materials Ordered by the City". Under such circumstances, the Contractor shall promptly forward to the City for payment the supplier's invoice together with the Contractor's receipt in writing for such materials.

(a) Upon acceptance of the materials furnished or ordered by the City, the Contractor warrants that it shall properly handle, transport, store and safeguard the materials.

(b) Further, the Contractor shall repair, repaint or replace any and all materials or any part thereof damaged or stolen while in its possession. Such materials are considered to be in the Contractor's possession from the moment the Contractor either accepts delivery of the materials or signs a receipt accepting delivery of said materials until the Project is accepted by the City's Representative.

(c) Before transporting any of the materials furnished or ordered by the City, the Contractor shall establish to the City's satisfaction that it has obtained insurance against losses, theft, damage, equal to or greater than the amounts spent by the City in securing said materials. It shall be incumbent upon the Contractor to verify the cost of materials.

(d) The City shall not be obligated to furnish materials in excess of the quantities, size, kind, and type set forth in the attached List of City Furnished Materials and List of Materials Ordered by the City. If the City furnishes, and the Contractor accepts, materials in excess thereof, the values of such excess materials shall be their actual cost as stated by the City.

(e) Upon delivery, the Contractor shall promptly receive, unload, transport, and handle all materials and equipment on the List of Materials Ordered by the City at its expense and shall be responsible for all shipping costs.

12.04. **Materials and supplies shall be new and of good quality.** Upon request, the Contractor shall supply proof of quality and manufacturer. No refurbished, reconditioned, or other previously utilized materials or supplies will be used without the prior signed authorization of City's Representative. The Contractor may utilize substitutes of equal quality and function only upon the prior written authorization of the City's Representative. The City's Representative may require documentation as to quality and function, including manufacturer's specifications, to insure that the proposed substitute is equal to the required material or supply. The City's Representative shall have sole discretion over the use of substitute materials and supplies. Contractor shall bear the risk of any delay in performance caused by submitting substitutions.

12.05. Only materials and equipment which are to be used directly in the Work shall be brought to and stored on the Project site by the Contractor. After equipment is no longer required for the Work, it shall be promptly removed from the Project site. Protection of construction material and equipment stored at the Project site from weather, theft, damage and all other perils is solely the responsibility of the Contractor.

13. ENTRY, OBSERVATION, TESTING & POSSESSION

13.01. The City reserves the right to enter the Project site or sites by such employee(s) or agent(s) as it may elect for the purpose of inspecting the work. The City further reserves the right to enter the Project site or sites for the purpose of performing such collateral work as the City may desire.

13.02. The City's Representative shall have the right, at all reasonable times, to observe and test the work. The Contractor shall make necessary arrangements and provide proper facilities and access for such observation and testing at any location where the work or any part thereof is in preparation or progress. The Contractor shall ascertain the scope of any observation that may be contemplated by City's Representative and shall give ample notice as to the time each part of the work will be ready for observation.

13.03. The City's Representative may require Contractor to remove, dismantle, or uncover completed work. If the work is not in accordance with the plans, specifications, or other Contract Documents, the Contractor shall pay the costs of repair and restoration of the work required to be removed, dismantled, or uncovered. Unless Contractor is obligated to provide advance notice of inspection, prior to covering up the work, and fails to do so, if the work is in accordance with the plans, specifications, and other Contract Documents, the City shall pay the costs of repair and restoration of the work.

13.04. City shall have the right to take possession of and use any completed or partially completed portions of the Project prior to the time for completing the entire Project or such portions which may not have expired. The parties agree and understand that possession and use shall not constitute an acceptance of any work not completed in accordance with this Agreement**.** Further, insurance changes required to keep Contractor's insurance in effect shall be the responsibility of Contractor.

14. REJECTED WORK

14.01. All work deemed not in conformity with this Agreement as determined by the City in its sole discretion, may be rejected by the City. City's Representative may reject any work found to be defective or not in accordance with the Contract Documents, regardless of the stage of the work's completion or the time or place of discovery of such defects or inconsistencies and regardless of whether City's Representative has previously accepted the work through oversight or otherwise. Neither observations nor inspections, tests, or approvals made by City's Representative, or other persons authorized under this Agreement to make such observations, inspections, tests, or approvals, shall relieve the Contractor from the obligation to perform the work in accordance with the requirements of this Agreement and the other Contract Documents.

14.02. If the work or any part thereof is rejected by the City, it shall be deemed by City's Representative as not in conformity with this Agreement. Any remedial action required, as set forth herein, shall be at the Contractor's expense, as follows:

(a) The Contractor may be required, at the City's option, after notice from City's Representative, to remedy such work so that it shall be in full compliance with this Agreement. All rejected work or materials shall be immediately replaced in order to conform with this Agreement.

(b) If the City deems it inexpedient to correct work damaged or not done in accordance with this Agreement, an equitable deduction from the agreed sum may be made by the City at the City's sole discretion.

15. SUBCONTRACTING & SUBCONTRACTORS

15.01. The Contractor agrees that it will retain personal control and will give its personal attention to the fulfillment of this Agreement. The Contractor further agrees that subletting of any portion or feature of the work or materials required in the performance of this Agreement shall not relieve the Contractor from its full obligation to the City as provided by this Agreement.

15.02. Subcontractors must be approved by City's Representative prior to hiring or beginning any work on the Project. If City's Representative judges any subcontractor to be failing to perform the work in strict accordance with the drawings and specifications, the Contractor, after due notice, shall discharge the same, but this shall in no way release the Contractor from its obligations and responsibility under this Agreement. Every subcontractor shall be bound by the terms and provisions of this Agreement and the Contract Documents as far as applicable to their work. The Contractor shall be fully responsible to the City for the acts and omissions of its subcontractors. Nothing contained herein shall create any contractual or employment relations between any subcontractor and the City.

16. PAYMENT

16.01. The City stipulates that it is an exempt organization as defined by the Limited Sales, Excise and Use Tax Act and, as such, is exempt from the payment of the sales tax on materials and supplies used in the performance of this Contract. The Contractor shall issue exemption certificates to its suppliers and Subcontractors in lieu of said sales tax for all such materials and supplies, and said exemption certificates must comply with the State Comptroller's Ruling No. 95-0.07 and shall be subject to the provision of the State Comptroller's Ruling No. 95-0.09, effective October 1, 1969.

16.02. **Progress Payment Applications.** The Contractor shall submit applications for payment as provided for herein. Applications for payment will be processed by the City's Representative. Before the first Application for Payment, the Contractor shall submit to the City a schedule of values allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the City may require. This schedule, unless objected to by the City, shall be used as a basis for reviewing the Contractor's Applications for Payment. On or before the 15th day of each month, the Contractor shall submit to City's Representative, for approval or modification, a statement showing as completely as practicable the total value of the actual work performed by the Contractor and accepted by the City up to and including the last day of the ***preceding*** month. The statement shall also include the value of all materials not previously submitted for payment which have been delivered to the site but have not yet been incorporated into the work.

16.03. **Progress Payments.** On or before the **30th** calendar day following the City's receipt of a progress payment application made in conformity with Paragraph 16.02, the City shall pay to the Contractor the approved amount of the progress payment based on the Contractor's applications for payment, and the recommendation and approval of City's Representative. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage of work completed by the Contractor and approved by the City, but in each case less the aggregate of payments previously made, less retainage, and less amounts as City's Representative shall determine and the City may withhold in accordance with this Agreement. Upon Final Completion, including the delivery of all close out documents, such as "as built" drawings, warranties, guarantees, required additional materials, releases, operation and maintenance manuals, and acceptance of the work in accordance with this Agreement, the City shall pay the remainder of the balance due under this Agreement, less any sums withheld under other terms of this Agreement and less the retainage, which shall be retained for a period of thirty (30) calendar days from the date of Final Completion. Acceptance of retainage by Contractor shall constitute a Waiver and Release of all claims by Contractor.

16.04. **Retainage.** From each approved statement, the City shall retain until final payment, ten percent (10%), where the full contract amount is less than $400,000.00, and five percent (5%), where the full contract amount is $400,000.00 or more. The City may also retain from each approved statement any other sums authorized under the terms of this Agreement.

16.05. If the actual amount of work to be done and the materials to be furnished differ from estimates and where the basis for payment is the unit price method, then payment shall be for the actual amount of accepted work done and materials furnished on the Project.

16.06. Reduction in the scope or quantity of work on unit price items shall merely reduce the number of units. In the event that materials have been delivered prior to notice of such reduction, the City will have the option either to pay freight & transportation costs and any re-stocking charges actually incurred by the Contractor or to purchase the materials. The Contractor shall never be entitled to anticipated or lost profits on the deleted or reduced portion of a job, whether bid on a unit price or lump sum basis.

16.07. The Contractor shall have the sole obligation to pay any and all charges or fees and give all notices necessary to and incidental to the lawful prosecution of the work hereunder. The Contractor shall not and shall have no authority whatsoever to obligate the City to make any payments to another party nor make any promises or representation of any nature on behalf of the City, without the specific written approval of the City.

16.08. The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the City may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

16.09. Unless otherwise provided in the Contract Documents:

(a) allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;

(b) Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Amount but not in the allowances;

(c) whenever costs are more than or less than allowances, the Contract Amount shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Paragraph 16.9(a) and (2) changes in the Contractor's costs under Paragraph 16.9(b).

16.10. **Suspension of Payments.** The City, at any time, may suspend monthly progress payments on the work if it determines that the projected liquidated damages may exceed retainage. The City, at any time, may suspend monthly progress payments if it believes that the Contractor will not complete the work due to actual default or that the Contractor has represented or done some act that indicates that it will not complete the work in accordance with this Agreement or within the time period submitted in its bid. Provided, however, City is in no way obligated to Contractor's surety to withhold payment pursuant to the provisions of this Paragraph.

16.11. **Withhold Funds.** Regardless of any bond, the City may, on account of subsequently discovered evidence and in addition to the retainage withheld under Paragraph 16.04, withhold funds or nullify all or part of any acceptance or certificate to such extent as may be necessary to protect itself from loss on account of any of the following, or as otherwise provided in this Agreement:

(a) Defective work.

(b) Claims made or reasonable evidence indicating probable filing of claims by unpaid vendors or other third parties.

(c) Failure of the Contractor to make prompt payments to subcontractors for labor or material or materialmen.

(d) Claims made or reasonable evidence indicating claims will be made for damage to another by the Contractor.

(e) Claims made or reasonable evidence indicating claims will be made for damage to third parties, including adjacent property owners.

(f) Claims made or reasonable evidence indicating claims will be made for unremedied damage to property owned by the City.

(g) City's determination of an amount of liquidated damages.

(h) Charges made for repairs to the Contractor's defective work or repairs made by the City to correct damage to other property.

(i) Other amounts authorized under this Agreement or under any other agreement made between City and Contractor.

Provided, however, City is in no way obligated to Contractor's surety to withhold payment pursuant to the provisions of this Paragraph.

16.12. The Parties agree that the City or the state auditor, if state funds are used to fund this contract, may conduct an audit or investigation of any entity receiving funds from the City directly or indirectly through a subcontract under the contract. The acceptance of funds under the contract or subcontract acts as acceptance of the authority of the City or the state auditor to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the Cit or the state auditor with access to any information the City or the auditor considers relevant to the investigation.

17. EXTRA WORK CHARGES

17.01. No changes shall be made, nor will bills for changes, alterations, modifications, deviations, and extra orders be recognized or paid for except upon the written order from authorized personnel of the City.

17.02. For "Extra Work", as defined in Paragraph 1.07 and authorized through written change orders, and pursuant to Section 252.048(d) of the Texas Local Government Code, the original contract price may not be increased by more than ***twenty-five percent (25%)***. Written change orders that do not exceed ***twenty-five percent (25%)*** of the original contract amount may be made or approved by the City Manager or his delegate if the change order is less than **Fifty Thousand Dollars *($50,000.00)***. Changes in excess of ***Fifty Thousand Dollars ($50,000.00)*** must be approved by the City Council prior to commencement of the services or work. **Any requests by the Contractor for a change to the Contract Amount shall be made prior to the beginning of the work covered by the proposed change or the right to payment for Extra Work shall be waived.** No course of conduct or dealings between the parties, nor implied acceptance of alterations or additions to the Work or changes to the Contract schedule shall be the basis for any claim for an increase in compensation or change in time. Any cost incurred by Contractor in connection with any Extra Work shall be included in Contractor's requested change order and Contractor's failure to include any such cost shall act to Waive and Release any claim for such non included cost.

17.03. The Contractor shall complete all work as specified or indicated in the Contract Documents. The Contractor shall complete all Extra Work in connection therewith. All work and materials shall be in strict conformity with the specifications. The Substantial Completion of the work shall not excuse the Contractor from performing all the work undertaken, whether of a minor or major nature, and thereby completing the Project in accordance with the Contract Documents. In the event that the Contractor fails to perform the work as required for Substantial Completion or Final Completion, the City may contract with a third party to complete the work and the Contractor shall assume and pay the costs of the performance of the work as contracted.

(a) It is agreed that the Contractor shall perform all Extra Work under the direction of City's Representative when presented with a written work order signed by City.

(b) **No claim for Extra Work of any kind will be allowed unless ordered in writing by the City.** In case any orders or instructions appear to the Contractor to involve Extra Work for which it should receive compensation or an adjustment in the construction time, it shall make written request to City's Representative for a written order from City authorizing such Extra Work.

(c) Should a difference of opinion arise as to what does or does not constitute Extra Work, or as to the payment therefor, and the City insists upon its performance, then the Contractor shall proceed with the work after making written requests for written orders in a change order and shall keep adequate and accurate account of the actual field costs therefor, as provided under Method C.

(d) It is also agreed that the compensation to be paid to the Contractor for performing Extra Work shall be determined by one or more of the following methods:

Method A - By agreed unit prices, or
Method B - By agreed lump sum, or
Method C - If neither Method A nor Method B is agreed upon before the Extra Work is commenced, then the Contractor shall be paid the actual field cost of the work.

(e) **Method A - Unit Prices**. The Contractor agrees to perform Extra Work for the unit prices in the Contractor's Proposal. The Contractor also agrees and warrants that when it is necessary to construct units not shown in the Contract Documents, it shall construct such units for a price arrived at as follows:

(1) The cost of materials shall be determined by the invoices;

(2) The cost of labor shall be the reasonable cost thereof, as determined by the City, but in no event shall it exceed an amount determined by calculating the ratio of the total labor costs to the total costs to the total material costs in the section of the Proposal involved, and multiplying the cost of materials for the unit in question by this ratio. Provided, however, that the ratio shall be calculated for only those units that are similar to the new unit for which a price is to be determined.

(f) **Method B - Lump Sum**. The lump sum shall be reasonably close to the amount for similar work previously done or combinations of similar units. Invoices for materials used shall be provided in support of the agreed lump sum.

(g) **Method C - Actual Field Costs.** The actual field cost is hereby defined to include the cost of all applicable workmen and laborers, as well as materials, supplies, teams, trucks, rentals on machinery and equipment, for the time actually employed or used for such Extra Work, plus actual transportation charges necessarily incurred, together with other costs reasonably incurred directly on account of such Extra Work, including social security, old age benefits, maintenance bonds, public liability, property damage, worker's compensation, and all other insurance as may be required by law or ordinances or required and agreed to by the City or City's Representative. City's Representative may direct the form in which accounts of the actual field costs shall be kept and records of these accounts shall be made available to City's Representative. Unless otherwise agreed upon, the prices for the use of machinery and equipment shall be determined by using one hundred percent (100%), unless otherwise specified, of the latest schedule of equipment and ownership expenses adopted by the Associated General Contractors of America. Where practical, the terms and prices for the use of machinery and equipment shall be incorporated in the written Extra Work order. Actual field costs shall not exceed the prevailing market price therefor within reasonable tolerances as determined by City's Representative. The amount due to Contractor for costs other than actual field costs shall be calculated in accordance with the following standards:

(1) No indirect or consequential damages will be allowed.

(2) All costs must be directly and specifically shown to be caused by a proven wrong. No recovery shall be based on a comparison by planned expenditures to total actual expenditures or on estimated losses of labor efficiency, or on a comparison of planned

manloading to actual manloading, or any other analysis that is used to show damages indirectly.

(3) Damages are limited to extra costs specifically shown to have been directly caused by a proven wrong.

(4) The maximum daily limit on any recovery for delay shall be the amount established by the Contractor for job overhead costs, defined in the pay applications, divided by the total number of days specified for completion called for in the original Contract. Absent an overhead amount in the Schedule of Values, the amount estimated by Contractor for job overhead cost shall be used.

18. TIME OF COMPLETION

18.01. The date of beginning, the time for Substantial Completion and Final Completion of work as specified in this Agreement are of the essence in this Agreement.

18.02. The work embraced by this Agreement shall be commenced on the date specified in the notice to proceed. Said notice to proceed will be given in written form or set by the City's Representative at the post-award conference.

18.03. The work shall be Substantially Completed within the time bid, which shall run from the date when the notice to proceed is given by City's Representative. The Contractor has bid **90 calendar days** for the time within which it shall reach Substantial Completion of the Project.

18.04. The work shall reach Final Completion and be ready for final payment within **thirty (30) calendar days** from the date of Substantial Completion.

19. SUBSTANTIAL COMPLETION

19.01. The Contractor shall notify City's Representative when, in the Contractor's opinion, the contract is Substantially Completed. Within ten (10) calendar days after the Contractor has given City's Representative written notice that the work has been Substantially Completed, City's Representative shall inspect the work for the preparation of a final punch list.

(a) If City's Representative and the City find that the work is not Substantially Completed, then they shall so notify the Contractor who shall then complete the work. City's Representative shall not be required to provide a list of unfinished work.

(b) If the City Representative and City find that the work is Substantially Completed, the City shall issue to the Contractor its certificate of Substantial Completion.

19.02. The Substantial Completion of the work shall not excuse the Contractor from performing all of the work undertaken, whether of a minor or major nature, and thereby completing the Project in accordance with the Contract Documents.

20. FINAL COMPLETION

20.01. Contractor shall notify the City's Representative when it believes that the work has reached Final Completion as defined in Paragraph 1.08. If the City's Representative and the City accept and deems such work Finally Complete, then Contractor shall be so notified and certificates of completion and acceptance, as provided herein, shall be issued. A complete itemized statement of this Agreement account, certified by the City's Representative as correct, shall then be prepared and delivered to Contractor. Contractor or City, as the case may be, shall pay the balance due as reflected by said statement within thirty (30) calendar days.

20.02. The Contractor shall procure all required certificates of acceptance or completions issued by state, municipal, or other authorities and submit the same to the City. The City may withhold any payments due under this Agreement until the necessary certificates are procured and delivered.

20.03. Neither the final payment nor any acceptance nor certificate nor any provision of this Agreement shall relieve the Contractor of any responsibility for faulty workmanship or materials. At the option of the City, the Contractor shall remedy any defects and pay for any damage to other work which may appear after final acceptance of the work.

21. DELAYS

21.01. The Contractor, in undertaking to complete the work within the times herein fixed, has taken into consideration and made allowance for all hindrances and delays incident to such work, whether growing out of delays in securing material or workmen or delays arising from inclement weather or otherwise.

21.02. The City may, in its sole discretion, delay the work during inclement weather in order to preserve the Project, insure safety of work forces, and the preservation of materials and equipment. In such event and upon a written request from the Contractor, the City may grant an extension of time pursuant to Paragraph 22 to offset for such stoppage of the work.

21.03. In the event of delays resulting from changes ordered in the work by the City or other delays caused by the City or for the City's convenience, the Contractor may apply to the City for recovery of incidental expenses resulting from increased storage costs or other costs necessary to protect the value of the work. In no event shall any consequential or other damages be allowed or any other charges or claims be made by the Contractor for hindrances or delays resulting from any other cause.

22. EXTENSIONS OF TIME

The Contractor has submitted its proposal in full recognition of the time required for the completion of this Project, taking into consideration all factors including, but not limited to the average climatic range and industrial conditions. The Contractor has considered the liquidated damage provision of this Agreement and understands and agrees that it shall not be entitled to, nor will it request, an extension of time for either Substantial Completion or Final Completion, except when the work has been delayed by one or more of the following:

(1) an act or neglect of the City, the City's Representative, employees of the City, or other contractors employed by the City;
(2) by changes ordered in the work, or reductions thereto approved in writing;

(3) by "rain days" (days with rainfall in excess of one-tenth of an inch) during the term of this Agreement that exceed the average number of rain days for such term for this locality, both as determined by the Texas A&M University weather service; or

(4) by other causes that the City and the Contractor agree may reasonably justify delay and that were beyond the Contractor's reasonable control and ability to estimate, predict, or avoid, such as delays caused by unforeseen labor disputes, fire, natural disasters, acts of war, and other rare and unpredictable events. This term does **not** include normal delays incident to the delivery of materials, tools, or labor that reasonably could have been predicted and/or accounted for in the Contractor's proposal or decision to bid.

If one or more of the foregoing conditions is present, the Contractor may apply in writing for an extension of time, within thirty (30) days of the occurrence of the event causing the delay, submitting therewith all written justification as may be required by the City's Representative. Within ten (10) calendar days after receipt of a written request for an extension of time, which is supported by all requested documentation, the City shall, in writing and in its sole discretion, grant or deny the request. Under no circumstances shall any extension of time by the City be valid and binding unless it is in writing and in conformity with the other terms of this Agreement.

23. LIQUIDATED DAMAGES

23.01. The time for the Substantial and Final Completion of the work described herein are reasonable times for the completion of each, taking into consideration all conditions, including but not limited to the average climatic conditions and usual industrial conditions prevailing in this locality. The amount of liquidated damages for the Contractor's failure to meet the deadlines for Substantial and/or Final Completion are fixed and agreed on by the Contractor because of the impracticability and extreme difficulty in fixing and ascertaining the actual damages that the City would in such an event sustain. The amounts to be charged are agreed to be damages the City would sustain and shall be retained by the City from current periodic estimates for payment or from final payment.

23.02. As a result of the difficulty in estimation, calculation and ascertainment of City's damages due to a failure of Contractor to achieve timely completion of the Work, if the Contractor should neglect, fail, or refuse to either Substantially Complete or Finally Complete the work within the time herein specified, or any proper extension thereof granted by the City's Representative pursuant to the terms of Paragraph 22 of this Agreement, then the Contractor does hereby agree as part of the consideration for the awarding of this Agreement that the City may permanently withhold from the Contractor's total compensation the sum of **Five Hundred and no/100 DOLLARS ($500.00)** for each and every calendar day that the Contractor shall be in default after the time stipulated for Substantial Completion and/or Final Completion, not as a penalty, but as liquidated damages for the breach of this Agreement. It being specifically understood that the assessment of liquidated damages may be made for any failure to meet either or both of the deadlines specified for Substantial Completion and/or Final Completion.

24. CHARGES FOR INJURY OR REPAIR

24.01. The Contractor shall be liable for any damages incurred or repairs made necessary by reason of its work and/or caused by it. Repairs of any kind required by the City will be made and charged to the Contractor by the City.

24.02. The Contractor shall take the necessary precautions to protect any areas adjacent to its work.

24.03. The work specified consists of all work, materials, and labor required by the City to repair any damage to the property of the City, including but not limited to structures, roadways, curbs, parking areas, and sidewalks.

25. WARRANTY

25.01. Upon issuance of a certificate of Final Completion, the Contractor warrants for a period of one (1) year as follows:

> **The Contractor warrants that all labor and materials provided to the City under this Agreement shall be new unless otherwise approved in advance by City's Representative and that all work will be of good quality, free from faults and defects, and in conformance with this Agreement, the other Contract Documents, and recognized industry standards.**

25.02. All work not conforming to these requirements, including but not limited to unapproved substitutions, may be considered defective.

25.03. This warranty is in addition to any rights or warranties expressed or implied by law and in addition to any consumer protection claims arising from misrepresentations by the Contractor.

25.04. Where more than a one (l) year warranty is specified for individual products, work, or materials, the longer warranty shall govern.

25.05. This warranty obligation shall be covered by any performance or payment bonds tendered in compliance with this Agreement.

25.06. **Defective Work Discovered During Warranty Period.** If any of the work is found or determined to be either defective, including obvious defects, or otherwise not in accordance with this Agreement within one (l) year after the date of the issuance of a certificate of Final Completion of the Work or a designated portion of the Work, whichever is longer, or within one (l) year after acceptance by the City of designated equipment, or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by this Agreement, the Contractor shall promptly correct the defective work at no cost to the City.

25.07. After receipt of written notice from the City to begin corrective work, the Contractor shall promptly begin the corrective work. The obligation to correct any defective work shall survive the termination of this Agreement. The guarantee to correct the defective work shall not constitute the exclusive remedy of City, nor shall other remedies be limited to the terms of either the warranty or the guarantee.

25.08. If within ten (10) calendar days after the City has notified the Contractor of a defect, failure, or abnormality in the work, the Contractor has not started to make the necessary corrections or adjustments, the City is hereby authorized to make the corrections or adjustments, or to order the work to be done by a third party. The cost of the work shall be paid by the Contractor or its surety.

25.09. The cost of all materials, parts, labor, transportation, supervision, special instruments, and supplies required for the replacement or repair of parts and for correction of defects shall be paid by the Contractor or by the surety.

25.10. The guarantee shall be extended to cover all repairs and replacements furnished, and the term of the guarantee for each repair or replacement shall be one (l) year after the installation or completion. The one (l) year warranty shall cover all work, equipment, and materials that are part of this Project, whether or not a warranty is specified in the individual section of the Contract Documents that prescribe that particular aspect of the work.

26. PAYMENT OF EMPLOYEES, SUBCONTRACTORS & SUPPLIERS

26.01. **Wage Rates.** Pursuant to Section 2258.023(a) of the Texas Government Code, wage rates paid by the Contractor and any subcontractor on this Project shall be not less than the general prevailing rate of per diem wages for work of a similar character in this locality as specified in the schedule of general prevailing rates of per diem wages attached hereto as Exhibit A.

26.02. **Statutory Penalty.** Pursuant to Section 2258.023(b) of the Texas Government Code, if the Contractor or any subcontractor violates the requirements of Paragraph 26.01, the Contractor or subcontractor as the case may be shall pay the City **Sixty Dollars** (**$60.00**) for each worker employed for each calendar day or part of the day that the worker is paid less than the stipulated wage rates.

26.03. The Contractor and each subcontractor shall pay all of their employees engaged in work on the Project in full (less mandatory legal deductions) in cash or by check readily cashable, without discount, no less than once each week.

26.04. No later than the seventh (7th) calendar day following the payment of wages, the Contractor must file with City's Representative a certified, sworn, legible copy of such payroll. This shall contain the name of each employee, their classification, the number of hours worked on each day, rate of pay, and net pay. The affidavit shall state that the copy is a true and correct copy of such payroll and that no rebates or deductions (except as shown) have been made or will be made in the future from the wages therein shown.

26.05. **Payment of Subcontractors.** The Contractor shall be solely and exclusively responsible for compensating any of the Contractor's employees, subcontractors, materialmen and/or suppliers of any type or nature whatsoever and for insuring that no claims or liens of any type arising out of or incidental to the performance of any services performed pursuant to this Agreement are filed against any property owned by the City. In the event a statutory lien notice is sent to the City, the Contractor shall, where no payment bond covers the work, upon written notice from the City, immediately obtain a bond at its expense and hold the City harmless from any losses that may result from the filing or enforcement of any said lien notice. In the event that the Contractor defaults in the provision of the bond, the City may withhold such funds as are necessary to assure the payment of such claim until litigation determines to whom payment shall be made.

26.06. **Affidavit of Bills Paid.** Prior to Final Acceptance of the Project, the Contractor shall provide a notarized affidavit, attached as Exhibit E, stating that all bills for labor, materials, and incidentals incurred have been paid in full, that any claims from manufacturers, materialmen, and subcontractors have been released, and that there are no claims pending of which the Contractor has been notified.

27. INSURANCE

27.01. The Contractor shall procure and maintain at its sole cost and expense for the duration of this Agreement insurance against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, volunteers, employees or subcontractors. The policies, coverages, limits and endorsements required are as set forth in Exhibit B.

28. BOND PROVISIONS

28.01. Pursuant to Section 2253.021 of the Texas Government Code, for all public works contracts with governmental entities, a payment bond is required if the Contract Amount exceeds $50,000, and a performance bond is required if the Contract Amount exceeds $100,000. Below those amounts, the City *may* require payment and/or performance bonds. In the event a performance or payment bond or both is required either by law or in the City's discretion, such bonds shall be executed in accordance with all requirements of Article 7.19-1 of the Texas Insurance Code, all other applicable law, and the following:

(a) The Contractor shall execute performance and payment bonds for the full Contract Amount.

(b) The bond surety shall be authorized under the laws of the State of Texas to provide a performance and payment bond and shall have attached proof of authorization of the surety to act in the performance and payment of bonds.

(c) The Contractor shall provide original, sealed, and complete counterparts of the executed bonds in the forms required by the Contract Documents, which are attached as Exhibit C, together with valid original powers of attorney, **at the time of execution of this Agreement and prior** to the commencement of work. Copies of the executed bonds shall be attached hereto as **Exhibit C.**

(d) The performance and payment bonds shall remain in effect for a period of one (1) year after Final Completion of the work and shall be extended for any warranty work to cover the warranty period.

(e) If at any time during the execution of this Agreement in the required period thereafter, the bond or bonds become invalid or ineffective for any reason, the Contractor shall promptly supply within ten (10) days such other bond or bonds, which bond or bonds shall assure performance or payment as required.

28.02. The Contractor may make such changes and alterations as the City may require in the work or any part thereof without affecting the validity of this Agreement and any accompanying bond. If such changes or alterations diminish the quantity of the work to be done, they shall not constitute the basis for any claim for damages or anticipated profits. If the City makes changes or alterations that render useless any work already done or material already used in said work, then the City shall compensate the Contractor for any material or labor so used, and for any actual loss occasioned by such change due to actual expenses incurred in preparation for the work as originally planned, in accordance with the provisions of Article 17.

29. SURETY

29.01. If the Contractor has abandoned the Project or the City has terminated the contract for cause and the Contractor's Surety, after notice demanding completion is sent, fails to commence the completion of the work

in compliance with this Agreement, then the City at its option may provide for completion of the work in either of the following manners:

29.01.01. The City may employ such force of men and use of instruments, machinery, equipment, tools, materials, and supplies as said the City may deem necessary to complete the work and charge the expense of such labor, machinery, equipment, tools, materials, and supplies to said the Contractor, and the expense so charged shall be deducted and paid by the City out of such monies as may be due or that may thereafter at any time become due to the Contractor and Surety.

29.01.02. The City may, after notice published as required by law, accept sealed bids and let this Agreement for the completion of the work under substantially the same terms and conditions that are provided in this Agreement. In case of any increase in cost to the City under the new agreement as compared to what would have been the cost under this Agreement, such increase together with all of the City's damages due to Contractor's abandonment and/or default, including liquidated damages, as provided pursuant to Paragraph 38, entitled "TERMINATION FOR CAUSE" shall be charged to the Contractor and the surety shall be and remain bound therefor. However, should the cost to complete such new agreement prove to be less than that which would have been the cost to complete the work under this Agreement, the Contractor shall be credited therewith after all deductions are made in accordance with this Agreement.

29.02. Should the cost to complete the work exceed the Contract Amount and the Contractor fails to pay the amount due to the City within the time designated and there remains any machinery, equipment, tools, materials, or supplies on the site of the work, notice thereof, together with an itemized list of such equipment and materials, shall be mailed to the Contractor at its respective address designated in this Agreement; provided, however, that actual written notice given in any manner shall satisfy this condition. After mailing, or otherwise giving such notice, such property shall be held at the risk of the Contractor subject only to the duty of City's Representative to exercise ordinary care to protect such property. After fifteen (15) calendar days from the date of said notice, City's Representative may sell such machinery, equipment, tools, materials, or supplies and apply the net sum derived from such sale to the credit of the Contractor. Such sale may be made at either public or private sale, with or without notice, as City's Representative may elect. City's Representative shall release any machinery, equipment, tools, materials, or supplies which remain on the job site and belong to persons other than the Contractor to their proper owners.

29.03. In the event the account shows that the cost to complete the work is less than that which would have been the cost to City had the work been completed by the Contractor under the terms of this Agreement, or when the Contractor shall pay the balance shown to be due by them to the City, then all machinery, equipment, tools, materials, or supplies left on the site of the work shall be turned over to the Contractor.

30. COMPLIANCE WITH LAW

30.01. The Contractor's work and materials shall comply with all state and federal laws, municipal ordinances, regulations, codes, and directions of inspectors appointed by proper authorities having jurisdiction.

30.02. The Contractor shall perform and require all subcontractors to perform the work in accordance with applicable laws, codes, ordinances, and regulations of the State of Texas and the United States and in compliance with OSHA and other laws as they apply to its employees. In the event any of the conditions of the specifications violate the code for any industry, then such code conditions shall prevail.

30.03. The Contractor shall follow all applicable state and federal laws, municipal ordinances, and guidelines concerning soil erosion and sediment control throughout the Project and warranty term.

30.04 The Immigration Reform and Control Act (IRCA). The Contractor may not knowingly obtain the labor or services of an undocumented worker. The Contractor, not the City, must verify eligibility for employment as required by IRCA;

30.05 In accordance with Section 2155.4441 of the Texas Government Code, Contractor agrees that during the performance of this contract it shall purchase products and materials produced in Texas when they are available at a price and time comparable to products and materials produced outside this state;

31. SAFETY PRECAUTIONS

31.01. All safety measures, policies and precautions at the site are a part of the construction techniques and processes for which the Contractor shall be solely responsible. The Contractor is solely responsible for handling and use of hazardous materials or waste, and informing employees of any such hazardous materials or waste. The Contractor shall provide copies of all hazardous materials and waste data sheets to the Nacogdoches Fire Department marked "Attn.: Assistant Chief".

31.02. The Contractor has the sole obligation to protect or warn any individual of potential hazards created by the performance of the work set forth herein. The Contractor shall, at its own expense, take such precautionary measures for the protection of persons, property, and the work as may be necessary.

31.03. The Contractor shall be held responsible for all damages to property, personal injuries and/or death due to failure of safety devices of any type or nature that may be required to protect or warn any individual of potential hazards created by the performance of the work set forth herein; and when any property damage is incurred, the damaged portion shall immediately be replaced or compensated for by the Contractor at its own cost and expense.

31.04. Contractor agrees that it shall not transport to, use, generate, dispose of, or install at the Project site any Hazardous Substance (as defined in Paragraph 31.07, except in accordance with applicable Environmental Laws. Further, in performing the Work, Contractor shall not cause any release of Hazardous Substances into, or contamination of, the environment, including the soil, the atmosphere, any water course or ground water, except in accordance with applicable Environmental Laws (as hereafter defined at Paragraph 31.07). **In the event Contractor engages in any of the activities prohibited in this Paragraph 31.04 to the fullest extent permitted by law, Contractor hereby indemnifies and holds City and all of its respective officials, agents and employees harmless from and against any and all claims, damages, losses, causes of action, suits and liabilities of every kind, including, but not limited to, expenses of litigation, court costs, punitive damages and attorneys' fees, arising out of, incidental to or resulting from the activities prohibited in this Paragraph 31.04.**

31.05. In the event Contractor encounters on the Project site any Hazardous Substance, or what Contractor may reasonably believe to be a Hazardous Substance, and which is being introduced to the Work, or exists on the Project site, in a manner violative of any applicable Environmental Laws, Contractor shall immediately stop work in the area affected and report the condition to City in writing. The Work in the affected area shall not thereafter be resumed except by written authorization of City if in fact a Hazardous Substance has been encountered and has not been rendered harmless. In the event Contractor fails to stop the Work upon

encountering a Hazardous Substance at the Project site, **to the fullest extent permitted by law, Contractor hereby indemnifies and holds City and all of its officials, agents and employees harmless from and against any and all claims, damages, losses, causes of action, suits and liabilities of every kind, including, but not limited to, expenses of litigation, court costs, punitive damages and attorneys' fees, arising out of, incidental to or resulting from Contractor's failure to stop the Work.**

31.06. City and Contractor may enter into a separate agreement and/or Change Order for Contractor to remediate and/or render harmless the Hazardous Substance, but Contractor shall not be required to remediate and/or render harmless the Hazardous Substance absent such agreement. Contractor shall not be required to resume work in any area affected by the Hazardous Substance until such time as the Hazardous Substance has been remediated and/or rendered harmless.

31.07. For purposes of this Agreement, the term "Hazardous Substance" shall mean and include any element, constituent, chemical, substance, compound, or mixture, which are defined as a hazardous substance by any local, state or federal law, rule, ordinance, by-law, or regulation pertaining to environmental regulation, contamination, clean-up or disclosure, including, without limitation, The Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), The Resource Conservation and Recovery Act ("RCRA"), The Toxic Substances Control Act ("TSCA"), The Clean Water Act ("CWA"), The Clean Air Act ("CAA"), and the Marine Protection Research and Sanctuaries Act ("MPRSA"), The Occupational Safety and Health Act ("OSHA"), The Superfund Amendments and Reauthorization Act of 1986 ("SARA"), or other state superlien or environmental clean-up or disclosure statutes including all state and local counterparts of such laws (all such laws, rules and regulations being referred to collectively as "Environmental Laws"). It is the Contractor's responsibility to comply with this Paragraph 31.07 based on the law in effect at the time its services are rendered and to comply with any amendments to those laws for all services rendered after the effective date of any such amendments.

32. TRENCH SAFETY

The Contractor must comply with Texas law regarding trench excavation exceeding five feet in depth and in accordance with the following items:

32.01 The Contractor must comply with the requirements of Tex. Health & Safety Code Ann. §756.022-023 (Vernon 1992), as amended, and the requirements of 29 C.F.R., Sections 1926.650 through 1926.653 inclusive, "Excavation, Trenching and Shoring," of the Occupational Safety and Health Administration Standards, as amended.

32.02 The Contractor must include a separate pay item for trench safety complying with trench safety requirements, stating a unit price per linear foot of trench safety systems, as measured along the centerline of trench including manholes and other line structures.

32.03 Before beginning work on this project, the Contractor must submit to the City a complete trench safety program that complies with state and federal regulations. It is the sole duty, responsibility and prerogative of the Contractor, not the City, to determine the specific applicability of the designed trench safety systems to each field condition encountered on the project.

32.04 The Contractor must provide the City the name of the "competent person" required by OSHA standards to perform the trench safety inspections. The Contractor must make daily inspections to ensure

that the systems comply with all applicable laws and regulations, and must maintain a permanent record of daily inspections available for examination by the City or other government authority.

32.05 If evidence of possible cave-ins or slides is apparent, the Contractor must cease all work in the trench and surrounding area until the necessary precautions have been taken by the Contractor to safeguard personnel entering the trench.

33. INDEMNITY

33.01. CONTRACTOR SHALL PROTECT, DEFEND, HOLD HARMLESS AND INDEMNIFY THE CITY AND/OR ITS OFFICERS, AGENTS, EMPLOYEES, REPRESENTATIVES, CONTRACTORS, ASSIGNEES, AND OR/OR DESIGNEES FROM ANY AND ALL CLAIMS, DEMANDS, EXPENSES, LIABILITY, SUITS OR CAUSES OF ACTION, AND ALL RELATED COSTS, ATTORNEY FEES, AND EXPENSES FOR INJURY TO ANY PERSON, INCLUDING DEATH, AND FOR DAMAGE TO ANY PROPERTY, TANGIBLE OR INTANGIBLE, OR FOR ANY BREACH OF CONTRACT ARISING OUT OF OR IN ANY MANNER CONNECTED WITH THE WORK DONE BY ANY PERSON UNDER THIS CONTRACT. IT IS THE INTENT OF THE PARTIES THAT THIS PROVISION SHALL EXTEND TO, AND INCLUDE, ANY AND ALL CLAIMS, CAUSES OF ACTION OR LIABILITY CAUSED BY THE CONCURRENT, JOINT AND/OR CONTRIBUTORY NEGLIGENCE OF THE CITY, AN ALLEGED BREACH OF AN EXPRESS OR IMPLIED WARRANTY BY THE CITY OR WHICH ARISES OUT OF ANY THEORY OF STRICT OR PRODUCTS LIABILITY.

33.02 The defense of any claim shall be coordinated by Contractor with the City Attorney of the City of Nacogdoches, Texas when the City is named Defendant in any lawsuit and Contractor may not agree to any settlement without first obtaining the concurrence from the City Attorney. The Parties agree to furnish timely written notice to each other of any such claim.

33.03. The indemnifications contained in paragraphs 33.01 shall include but not be limited to the following specific instances:

(a) In the event the City is damaged due to the act, omission, mistake, fault or default of the Contractor, then the Contractor shall indemnify and hold harmless and defend the City for such damage.

(b) The Contractor shall indemnify and hold harmless and defend the City from any claims for payment for goods or services brought by any material suppliers, mechanics, laborers, or other subcontractors.

(c) The Contractor shall indemnify and hold harmless and defend the City from any and all injuries to or claims of adjacent property owners caused by the Contractor, its agents, employees, and representatives.

(d) The Contractor shall be responsible for any damage to the floor, walls, etc., caused by the Contractor's personnel or equipment during installation.

(e) The Contractor shall also be responsible for the removal of all related debris.

(f) The Contractor shall also be responsible for subcontractors hired by it.

(g) The Contractor shall indemnify, hold harmless, and defend the City from any liability caused by the Contractor's failure to comply with applicable federal, state, or local regulations, that touch upon or concern the maintenance of a safe and protected working environment and the safe use and operation of machinery and equipment in that working environment, no matter where fault or responsibility lies.

33.04. The indemnification obligations of the Contractor under this section shall not extend to include the liability of any professional engineer, the architect, their consultants, and agents or employees of any of them arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or (2) the giving of or the failure to give directions or instructions by the professional engineer, the architect, their consultants, and agents and employees of any of them, provided such giving or failure to give is the primary cause of the injury or damage.

33.05. It is agreed with respect to any legal limitations now or hereafter in effect and affecting the validity or enforceability of the indemnification obligation under Paragraph 33.01, such legal limitations are made a part of the indemnification obligation and shall operate to amend the indemnification obligation to the minimum extent necessary to bring the provision into conformity with the requirements of such limitations, and as so modified, the indemnification obligation shall continue in full force and effect.

34. RELEASE

The Contractor assumes full responsibility for the work to be performed hereunder, and hereby releases, relinquishes, and discharges the City, its officers, agents, and employees from all claims, demands, and causes of action of every kind and character, including the cost of defense thereof, for any injury to or death of any person (whether employees of either party or other third parties) and any loss of or damage to any property (whether property of either of the parties hereto, their employees, or of third parties) that is caused by or alleged to be caused by, arising out of, or in connection with the Contractor's work to be performed hereunder. This release shall apply regardless of whether said claims, demands, and causes of action are covered in whole or in part by insurance, and in the event of injury, death, property damage, or loss suffered by the Contractor, any subcontractor, or any person or organization directly or indirectly employed by any of them to perform or furnish work on the Project, this release shall apply regardless of whether such injury, death, loss, or damage was caused in whole or in part by the negligence of the City.

35. PERMITS AND LICENSES

The Contractor shall secure and pay for all necessary permits and licenses, governmental fees, and inspections necessary for the proper execution and completion of the work. During this Agreement term and/or period during which the Contractor is working, it shall give all notices and comply with all laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the performance of the work.

36. ROYALTIES AND LICENSING FEES

The Contractor shall pay all royalties and licensing fees. The Contractor shall hold the City harmless and indemnify the City from the payment of any royalties, damages, losses or expenses including attorney's fees for suits, claims or otherwise, growing out of infringement or alleged infringement of patents, materials and methods used in the Project. It shall defend all suits or claims for infringement of any patent rights. Further, if the Contractor has reason to believe that the design, service, process, or product specified is an infringement of a patent, it shall promptly give such information to City's Representative.

37. BREACH OF CONTRACT & DAMAGES

37.01. The City shall have the right to declare the Contractor in breach of this Agreement for cause when the City determines that this Agreement is not being performed according to its understanding of the intent and meaning of this Agreement. Such breach shall not in any way invalidate, abrogate, or terminate the Contractor's obligations under this Agreement.

37.02. Without prejudice to any other legal or equitable right or remedy that the City would otherwise possess hereunder or as a matter of law, the City upon giving the Contractor five (5) calendar days prior written notice shall be entitled to damages for breach of contract, upon but not limited to the following occurrences:

(a) If the Contractor shall fail to remedy any default after written notice thereof from City's Representative, as City's Representative shall direct; or

(b) If the Contractor shall fail for any reason other than the failure by City's Representative to make payments called upon when due; or

(c) If the Contractor commits a substantial default under any of the terms, provisions, conditions, or covenants contained in this Agreement.

38. TERMINATION FOR CAUSE

Without prejudice to any other legal or equitable right or remedy that the City would otherwise possess hereunder or as a matter of law, the City upon giving the Contractor five (5) calendar days prior written notice shall be entitled to terminate this Agreement in its entirety at any time for any of the following:

38.01. If the Contractor becomes insolvent, commits any act of bankruptcy, makes a general assignment for the benefit of creditors, or becomes the subject of any proceeding commenced under any statute or law for the relief of debtors and, after notice, fails to provide adequate assurance that it can remedy all of its defaults; or

38.02. If a receiver, trustee, or liquidator of any of the property or income of the Contractor shall be appointed; or

38.03. If the Contractor shall fail to prosecute the work or any part thereof with diligence necessary to insure its progress and completion as prescribed by the time schedules; or

38.04. If the Contractor shall fail to remedy any default within ten (10) calendar days after written notice thereof from City's Representative, as City's Representative shall direct; or

38.05. If the Contractor shall fail for any reason other than the failure by City's Representative to make payments called upon when due; or

38.06. If the Contractor abandons the Work.

38.07. If the Contractor commits a substantial default under any of the terms, provisions, conditions, or covenants contained in this Agreement.

39. TERMINATION FOR CONVENIENCE

39.01. The performance of the work may be terminated at any time in whole or, from time to time, in part, by the City for its convenience. Any such termination shall be effected by delivery to the Contractor of a written notice (notice of termination) specifying the extent to which performance of the work is terminated, and the date upon which termination becomes effective.

39.02 In the event of termination for convenience, the Contractor shall only be paid the reasonable value of the Work performed prior to the effective date of the termination notice and shall be further subject to any claim the City may have against the Contractor under other provisions of this Agreement or as a matter of law. In the event of termination for convenience, Contractor Waives and Releases any claim for lost profit, other than profit on Work performed prior to the effective date of such termination.

40. RIGHT TO COMPLETE

If this Agreement is terminated for cause, the City shall have the right but shall not be obligated to complete the work itself or by others; and to this end, the City shall be entitled to take possession of and use such equipment, without rental obligation therefor, and materials as may be on the job site, and to exercise all rights, options, and privileges of the Contractor under its subcontracts, purchase orders, or otherwise; and the Contractor shall promptly assign such rights, options, and privileges to City. If the City elects to complete the work itself or by others, pursuant to the foregoing, then the Contractor and/or Contractor's surety will reimburse City for all costs incurred by the City (including, without limitation, applicable, general, administrative expenses, field overhead, the cost of necessary equipment, materials, field labor, additional fees paid to architects, engineers, attorneys or others to assist the City in connection with the termination and liquidated damages) in completing and/or correcting work by the Contractor that fails to meet any requirement of this Agreement or the other Contract Documents.

41. CLOSE OUT

41.01. After receipt of a notice of termination, whether for cause or convenience, unless otherwise directed by City's Representative, the Contractor shall, in good faith and to the best of its ability, do all things necessary in the light of such notice to assure the efficient and proper closeout of the terminated work (including the protection of City's property). Among other things, the Contractor shall, except as otherwise directed or approved by City's Representative, do the following:

(a) Stop the work on the date and to the extent specified in the notice of termination;

(b) Place no further orders or subcontracts for services, equipment, or materials, except as may be necessary for completion of such portion of the work as is not terminated;

(c) Terminate all orders and subcontracts to the extent that they relate to the performance of the work terminated by the notice of termination;

(d) Assign to City's Representative, in the manner and to the extent directed by it, all of the right, title, and interest of the Contractor under the orders or subcontracts so terminated; in which case, City's Representative shall have the right to settle or pay any or all claims arising out of the termination of such orders and subcontracts;

(e) With the approval of City's Representative, settle all outstanding liabilities and all claims arising out of such termination, orders, and subcontracts;

(f) Deliver to City's Representative, when directed by City's Representative, all documents and all property, which if the work had been completed, Contractor would have been required to account for or deliver to City's Representative, and transfer title to such property to City's Representative to the extent not already transferred.

42. TERMINATION CONVERSION

Upon determination of Court of competent jurisdiction that termination of the Contractor pursuant to Paragraph 38 was wrongful and/or otherwise improper, such termination will be deemed converted to a termination for convenience pursuant to Paragraph 39 and Contractor's remedy for such termination shall be limited to the recovery of the payments permitted for termination for convenience as set forth in Paragraph 39.

43. HIRING

During the term of this Agreement and for a period of one (1) year thereafter, the Contractor agrees not to solicit for hire any employee or employees of the City that were associated with work specified under this Agreement. In the event that this provision is breached by the Contractor, the Contractor agrees to pay the City damages in the amount equal to twelve (12) months of the employee's total compensation plus any legal expenses associated with enforcement of this provision.

44. ASSIGNMENT

This Agreement and the rights and obligations contained herein may not be assigned by the Contractor without the prior written approval of the City.

45. EFFECTIVE DATE

The effective date of this contract shall be the date of award of the contract.

46. OTHER TERMS

46.01. **Invalidity.** If any provision of this Agreement shall be held to be invalid, illegal or unenforceable by a court or other tribunal of competent jurisdiction, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby. The parties shall use their best efforts to

replace the respective provision or provisions of this Agreement with legal terms and conditions approximating the original intent of the parties.

46.02. **Written Notice.** Unless otherwise specified, written notice shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to any officer of the corporation for whom it is intended or if it is delivered or sent certified mail to the last business address as listed herein. Each party will have the right to change its business address by at least thirty (30) calendar days written notice to the other parties in writing of such change.

46.03. **Entire Agreement.** It is understood that this Agreement contains the entire agreement between the parties and supersedes any and all prior agreements, arrangements, or understandings between the parties relating to the subject matter. No oral understandings, statements, promises or inducements contrary to the terms of this Agreement exist. This Agreement cannot be changed or terminated orally. No verbal agreement or conversation with any officer, agent or employee of the City, either before or after the execution of this Agreement, shall affect or modify any of the terms or obligations hereunder.

46.04. **Amendment.** No amendment to this Agreement shall be effective and binding unless and until it is reduced to writing and signed by duly authorized representatives of both parties.

46.05. **Mediation.** After receipt of a Notice of Claim, the City may elect to refer the matter to the Architect, City's Representative or another party for review. Contractor will attend meetings called to review and discuss the Claims and mitigation of the problem, and shall furnish any reasonable factual backup for the Claim requested. The City may also elect to defer consideration of the Claim until the Work is completed, in which case the same review options shall be available to the City at the completion of the Work. At any stage, the City, at its sole discretion, is entitled to refer a Claim to mediation under the Construction Industry Mediation Rules of the American Arbitration Association, and, if this referral is made, Contractor will take part in the mediation process. The filing, mediation or rejection of a Claim does not entitle Contractor to stop performance of the Work. The Contractor shall proceed diligently with performance of the Contract during the pendency of any claim, excepting termination or under City's direction to stop the Work. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof. The parties shall share the Mediator's fee and any filing fees equally and the Mediation shall be held in Nacogdoches, Texas.

46.06. **Arbitration.** In the event of a dispute and upon the mutual written consent of both parties, the parties may agree to arbitration without waiving any of their other rights hereunder.

46.07. **Choice of Law and Place of Performance.** This Agreement has been made under and shall be governed by the laws of the State of Texas. Performance and all matters related thereto shall be in Nacogdoches County, Texas, United States of America.

46.08. **Authority to do business.** The Contractor represents that it has a certificate of authority, authorizing it to do business in the State of Texas, a registered agent and registered office during the duration of this contract.

46.09. **Authority to Contract.** Each party has the full power and authority to enter into and perform this Agreement, and the person signing this Agreement on behalf of each party has been properly authorized and empowered to enter into this Agreement. The persons executing this Agreement hereby represent that they have authorization to sign on behalf of their respective corporations.

46.10. Contractor Affirmations: If this contract is funded in whole or in part by money from the State of Texas, State law requires the following certifications, representations and/or warranties. Regardless of funding by the State, by signature hereon affixed, the Contractor hereby certifies that:

(a) Contractor has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with this Contract

(b) Contractor represents and warrants that it has no actual or potential conflicts of interest in the goods and or services described in the scope of work to this contract.

(c) **Antitrust**. Pursuant to 15 U.S.C. §1, et seq. and Tex. Bus. & Comm. Code §15.01, et seq. neither the contractor nor the firm, corporation, partnership, or institution represented by the contractor, or anyone acting for such a firm, corporation or institution has violated the antitrust laws of this state, federal antitrust laws, nor communicated directly or indirectly the bid made to any competitor or any other person engaged in such line of business.

(d) **Child Support.** Pursuant to §231.006(d), Texas Family Code, regarding child support, the Contractor certifies that the individual or business entity named in this Contract is not ineligible to receive the specified payment and acknowledges that the contract may be terminated, and payment may be withheld if this certification is inaccurate. Furthermore, any Contractor subject to §231.006, Gov't Code, must include names and Social Security numbers of each person with at least 25% ownership of the business entity submitting the bid. This information must be provided prior to award. Enter the Name & Social Security Numbers for each person below:

Name:	Social Security Number:
Name:	Social Security Number:
Name:	Social Security Number:

(e) **Debarment**. Contractor certifies that Contractor and its principals are eligible to participate in this transaction and have not been subjected to suspension, debarment, or similar ineligibility determined by any federal, state or local governmental entity and that Contractor is in compliance with the State of Texas statutes and rules relating to procurement. Entities ineligible for state procurement are listed on the State of Texas Debarred Vendor List maintained by the Texas Comptroller of Public Accounts and the System for Award Management (SAM) maintained by the General Services Administration. Entities ineligible for federal procurement are listed at http://www.sam.gov/content/exclusions.

(f) **Terrorism Watch List.** Contractor represents and warrants that it does not do business with Iran, Sudan or a foreign terrorist organization as prohibited by Texas Government Code 2252.152. Contractor certifies that it is not listed on the federal government's terrorism watch list as described in Executive Order 13224.

(g) **Critical Infrastructure**. If Contractor will be granted direct or indirect access to a communication infrastructure system, cybersecurity system, electric grid, hazardous waste treatment system, or water treatment facility, Contractor certifies that neither it or its parent company, is (1) majority owned by

citizens or governmental entities of China, North Korea, Russia or any other country designated by the Governor under Government Code 2274.0103, or (2) headquartered in any of those countries.

(h) **Convictions**. Under Sections 2155.006, 23155.0061 and 2261.053 of the Texas Government Code, Contractor certifies that it is not ineligible to receive the specified contract and may be terminated and payment withheld if this certification is inaccurate. These sections prohibit contracts that include proposed financial participation by an individual or business entity who has been convicted in the past five years of (a) violating a federal law or assessed a penalty in connection with a contract involving relief for Hurricane Rita, Hurricane Katrina, or any other disaster, as defined by §418.004, Gov't Code, occurring after September 24, 2005; and (b) of any offense related to the direct support or promotion of human trafficking.

(i) **COVID Vaccinations**. Contractor certifies that it does not require its customers to provide any documentation certifying the Customer's COVID-19 vaccination or post-transmission recovery on entry to, or to receive service from the Contractor's business.

(j) **Boycotts.** (1) To the extent this Contract is considered a Contract for goods or services subject to § 2270.002 Texas Government Code, Contractor verifies that it: (i) does not boycott Israel; and (ii) will not boycott Israel during the term of this Contract. (2) To the extent this Contract has a value of $100,000 or more and Contractor is an organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or limited liability company, including a wholly owned subsidiary, majority-owned subsidiary, parent company, or affiliate of those entities or business associations, that exists to make a profit that employs 10 or more full time employees, Contractor certifies that it: (i) does not and will not boycott energy companies during the term of the contract (*See Texas Government Code 2274.002, et seq.*); and (ii) does not and will not discriminate against a firearm entity or firearm trade association (*See Texas Government Code 2274.002, et seq.*).

46.11. **Waiver.** Failure of any party, at any time, to enforce a provision of this Agreement shall in no way constitute a waiver of that provision nor in any way affect the validity of this Agreement, any part hereof, or the right of the City thereafter to enforce each and every provision hereof. No term of this Agreement shall be deemed waived or breach excused unless the waiver shall be in writing and signed by the party claimed to have waived. Furthermore, any consent to or waiver of a breach will not constitute consent to or waiver of or excuse of any other different or subsequent breach.

46.12. **Headings, Gender, Number.** The article headings are used in this Agreement for convenience and reference purposes only and are not intended to define, limit, or describe the scope or intent of any provision of this Agreement and shall have no meaning or effect upon its interpretation. Words of any gender used in this Agreement shall be held and construed to include any other gender, and words in the singular number shall be held to include the plural, and vice versa, unless the context requires otherwise.

46.13. **Agreement Read.** The parties acknowledge that they have had opportunity to consult with counsel of their choice, have read, understand and intend to be bound by the terms and conditions of this Agreement.

46.14. **Multiple Originals.** It is understood and agreed that this Agreement may be executed in a number of identical counterparts, each of which shall be deemed an original for all purposes.

46.15. **Notice of Indemnification. City and Contractor hereby acknowledge and agree that this Agreement contains certain indemnification obligations and covenants.**

CAPITAL UNDERGROUND UTILITIES

By:_____
Printed Name:_____
Title:_____
Date:_____

CITY OF NACOGDOCHES

By:_____
City Manager
Date: _____

APPROVED AS TO FORM:

_____
City Attorney
Date: _____

Exhibit A
DAVIS BACON WAGE RATES

General Decision Number: TX20250084 01/03/2025

Superseded General Decision Number: TX20240084

State: Texas

Construction Type: Heavy

Counties: Cass, Cherokee, Erath, Fannin, Franklin, Hood, Hopkins, Marion, Montague, Morris, Nacogdoches, Navarro, Palo Pinto, Panola, Rains, Red River, Somervell, Titus, Van Zandt and Wood Counties in Texas.

HEAVY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all

	hours spent performing on
	that contract in 2025.

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

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number: 0
Publication Date: 01/03/2025

SUTX2009-129 04/21/2009

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 13.00 **	0.00
LABORER: Common or General	$ 8.61 **	0.00
LABORER: Pipelayer	$ 9.94 **	0.00
OPERATOR: Backhoe/Trackhoe	$ 11.75 **	0.00
OPERATOR: Bulldozer	$ 14.25 **	0.00
OPERATOR: Loader (Front End)	$ 11.52 **	0.00
TRUCK DRIVER	$ 10.80 **	0.26

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

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.75) or 13658 ($13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

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

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

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

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes

over time that are reported to WHD in the rates
in the collective bargaining agreement (CBA) governing the
classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for
those classifications, but that 100% of the data reported for
the classifications reflected union rates. EXAMPLE:
UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a
weighted union average rate. OH indicates the State of Ohio.
The next number, 0010 in the example, is an internal number
used in producing the wage determination. The date, 01/01/2024
in the example, indicates the date the wage determination was
updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to
reflect a weighted average of the current rates in the
collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union
rate prevailed (as defined in 29 CFR 1.2) for this
classification in the survey or that the rate was derived by
computing a weighted average rate based on all the rates
reported in the survey for that classification. As a weighted
average rate includes all rates reported in the survey, it may
include both union and non-union rates. Example: SUFL2022-007
6/27/2024. SU indicates the rate is a single non-union
prevailing rate or a weighted average of survey data for that
classification. FL indicates the State of Florida. 2022 is the
year of the survey on which these classifications and rates are
based. The next number, 007 in the example, is an internal
number used in producing the wage determination. The date,
6/27/2024 in the example, indicates the survey completion date
for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey
is conducted. However, the Wage and Hour Division (WHD) has the
discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and
prevailing wage rates set by a state (or local) government were
adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007
01/03/2024. SA reflects that the rates are state adopted. ME
refers to the State of Maine. 2023 is the year during which the
state completed the survey on which the listed classifications
and rates are based. The next number, 007 in the example, is an
internal number used in producing the wage determination.

The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.

Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

Exhibit B
INSURANCE REQUIREMENTS

During the term of this Agreement Contractor's insurance policies shall meet the following requirements:

I. Standard Insurance Policies Required:

A. Commercial General Liability
B. Business Automobile Liability
C. Umbrella / Excess Liability – required for contract amounts exceeding $1,000,000
D. Workers' Compensation
E. Builder's Risk – provides coverage for contractor's labor and materials for a project during construction that involves a structure such as a building or garage. builder's risk policy shall be written on "all risks" form.

II. General Requirements Applicable to All Policies:

A. Only Insurance Carriers licensed and admitted to do business in the State of Texas will be accepted.

B. Deductibles shall be listed on the Certificate of Insurance and are acceptable only on a per occurrence basis for property damage only.

C. "Claims Made" policies are not accepted.

D. Each insurance policy shall be endorsed to state that coverage shall not be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City of Nacogdoches.

E Upon request, certified copies of all insurance policies shall be furnished to the City of Nacogdoches.

F. The City of Nacogdoches, its officials, employees and volunteers, are to be named as "Additional Insured" to the Commercial General, Umbrella and Business Automobile Liability policies. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officials, employees or volunteers.

G. Waiver of subrogation in a form at least as broad as ISO form 2404 shall be provided in favor of the City on all policies obtained by the Contractor in compliance with the terms of this Agreement.

III. Commercial General Liability

A. General Liability insurance shall be written by a carrier with a "A:VIII" or better rating in accordance with the current Best Key Rating Guide.

B. Limit of $500,000.00 per occurrence for bodily injury and property damage with an annual

aggregate limit of $1,000,000.00 which limits shall be endorsed to be per Project.

C. Coverage shall be at least as broad as ISO form GC 00 01.

D. No coverage shall be excluded from the standard policy without notification of individual exclusions being attached for review and acceptance.

E. The coverage shall include but not be limited to the following: premises/operations with separate aggregate; independent contracts; products/completed operations; contractual liability (insuring the indemnity provided herein) Host Liquor Liability, Personal & Advertising Liability; and Explosion, Collapse, and Underground coverage.

IV. Business Automobile Liability

A. Business Automobile Liability insurance shall be written by a carrier with a "A:VIII" or better rating in accordance with the current Best Key Rating Guide.

B. Minimum Combined Single Limit of $1,000,000.00 per occurrence for bodily injury and property damage.

C. Coverage shall be at least as broad as Insurance Service's Office Number CA 00 01.

D. The Business Auto Policy must show Symbol 1 in the Covered Autos Portion of the liability section in Item 2 of the declarations page.

E. The coverage shall include owned autos, leased or rented autos, non-owned autos, any autos and hired autos.

F. Pollution Liability coverage shall be provided by endorsement MCS-90, with a limit of $1,000,000.00.

V. Excess Liability

Umbrella form excess liability coverage following the form of the underlying coverage with a minimum limit of $5,000,000.00 or the total value of the contract, whichever is greater, per occurrence/aggregate when combined with the lowest primary liability coverage, is required for contracts exceeding $1,000,000 in total value.

VI. Those policies set forth in Paragraphs III, IV, and V shall contain an endorsement naming the City as Additional Insured and further providing that the Contractor's policies are primary to any self-insurance or insurance policies procured by the City. The additional insured endorsement shall be in a form at least as broad as ISO form GC 2026. Waiver of subrogation in a form at least as broad as ISO form 2404 shall be provided in favor of the City on all policies obtained by the Contractor in compliance with the terms of this Agreement. Contractor shall be responsible for all deductibles which may exist on any policies obtained in compliance with the terms of this Agreement. All coverage for subcontractors shall be subject to the requirements stated herein. All Certificates of Insurance and endorsements shall be

furnished to the City's Representative at the time of execution of this Agreement, attached hereto as Exhibit D, and approved by the City before work commences.

VII. Workers Compensation Insurance

A. Pursuant to the requirements set forth in Title 28, Section 110.110 of the Texas Administrative Code, all employees of the Contractor, all employees of any and all subcontractors, and all other persons providing services on the Project must be covered by a workers compensation insurance policy: either directly through their employer's policy (the Contractor's or subcontractor's policy) or through an executed coverage agreement on an approved Texas Department of Insurance Division of Workers Compensation (DWC) form. Accordingly, if a subcontractor does not have his or her own policy and a coverage agreement is used, contractors and subcontractors must use that portion of the form whereby the hiring contractor agrees to provide coverage to the employees of the subcontractor. The portion of the form that would otherwise allow them not to provide coverage for the employees of an independent contractor may not be used.

B. Workers compensation insurance shall include the following terms:

1. Employer's Liability minimum limits of $1,000,000.00 for each accident/each disease/each employee are required.

2. "Texas Waiver of Our Right to Recover From Others Endorsement, WC 42 03 04" shall be included in this policy.

3. Texas must appear in Item 3A of the Workers Compensation coverage or Item 3C must contain the following: All States except those listed in Item 3A and the States of NV, ND, OH, WA, WV, and WY.

C. Pursuant to the explicit terms of Title 28, Section 110.110(c) (7) of the Texas Administrative Code, the bid specifications, this Agreement, and all subcontracts on this Project must include the following terms and conditions in the following language, without any additional words or changes, except those required to accommodate the specific document in which they are contained or to impose stricter standards of documentation:

"A. Definitions:

Certificate of coverage ("certificate") – An original certificate of insurance, a certificate of authority to self-insure issued by the Division of Workers Compensation, or a coverage agreement (DWC-81, DWC-83, or DWC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

Duration of the project - includes the time from the beginning of the work on the project until the Contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons providing services on the project ("subcontractors" in § 406.096 [of the Texas Labor Code]) - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent Contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

B. The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, that meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the Contractor providing services on the project, for the duration of the project.

C. The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.

D. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

E. The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

(1) a certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

(2) no later than seven calendar days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

F. The Contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.

G. The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within 10 calendar days after the Contractor knew or should have known, or any change that materially affects the provision of coverage of any person providing services on the project.

H. The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Division of Workers Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

I. The Contractor shall contractually require each person with whom it contracts to provide services on a project, to:

(1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, that meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the project, for the duration of the project;

(2) provide to the Contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;

(3) provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(4) obtain from each other person with whom it contracts, and provide to the Contractor:

(a) A certificate of coverage, prior to the other person beginning work on the project; and

(b) A new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

(5) retain all required certificates of coverage on file for the duration of the project and for one year thereafter;

(6) notify the governmental entity in writing by certified mail or personal delivery, within 10 calendar days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

(7) Contractually require each person with whom it contracts to perform as required by paragraphs (a) - (g), with the certificates of coverage to be provided to the person for whom they are providing services.

J. By signing this contract, or providing, or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the Contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project; that the coverage will be based on proper reporting of classification codes and payroll amounts; and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the Commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

K. The Contractor's failure to comply with any of these provisions is a breach of contract by the

Contractor that entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten calendar days after receipt of notice of breach from the governmental entity."

VIII. Certificates of Insurance shall be prepared and executed by the insurance company or its authorized agent, and shall contain the following provisions and warranties:

A. The company is licensed and admitted to do business in the State of Texas.

B. The insurance policies provided by the insurance company are underwritten on forms that have been provided by the Texas State Board of Insurance or ISO.

C. All endorsements and insurance coverages according to requirements and instructions contained herein.

D. The form of the notice of cancellation, termination, or change in coverage provisions to the City of Nacogdoches.

E. Original endorsements affecting coverage required by this section shall be furnished with the certificates of insurance.

Exhibit C
PERFORMANCE AND PAYMENT BONDS

PERFORMANCE BOND Project No._____

THE STATE OF TEXAS §
§ KNOW ALL MEN BY THESE PRESENTS:
THE COUNTY OF NACOGDOCHES §

THAT WE, **_____,** as Principal, hereinafter called "Contractor" and the other subscriber hereto _____, as Surety, do hereby acknowledge ourselves to be held and firmly bound to the City of Nacogdoches, a municipal corporation, in the sum of **One Million Three Hundred Five Thousand Nine Hundred Two and 00/100 Dollars ($ 1,305,902.00)** for the payment of which sum, well and truly to be made to the City of Nacogdoches and its successors, the said Contractor and Surety do bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH THAT:

WHEREAS, the Contractor has on or about this day executed a Contract in writing with the City of Nacogdoches for **Construction Services for ARPA Collection System Improvements Project** all of such work to be done as set out in full in said Contract Documents therein referred to and adopted by the City Council, all of which are made a part of this instrument as fully and completely as if set out in full herein.

NOW THEREFORE, if the said Contractor shall faithfully and strictly perform Contract in all its terms, provisions, and stipulations in accordance with its true meaning and effect, and in accordance with the Contract Documents referred to therein and shall comply strictly with each and every provision of the Contract, including all warranties and indemnities therein and with this bond, then this obligation shall become null and void and shall have no further force and effect; otherwise the same is to remain in full force and effect.

It is further understood and agreed that the Surety does hereby relieve the City of Nacogdoches or its representatives from the exercise of any diligence whatever in securing compliance on the part of the Contractor with the terms of the Contract, including the making of payments thereunder and, having fully considered its Principal's competence to perform the Contract in the underwriting of this Performance Bond, the Surety hereby waives any notice to it of any default, or delay by the Contractor in the performance of his Contract and agrees that it, the Surety, shall be bound to take notice of and shall be held to have knowledge of all acts or omissions of the Contractor in all matters pertaining to the Contract. The Surety understands and agrees that the provision in the Contract that the City of Nacogdoches shall retain certain amounts due the Contractor until the expiration of thirty days from the acceptance of the Work is intended for the City's benefit, and the City of Nacogdoches shall have the right to pay or withhold such retained amounts or any other amount owing under the Contract without changing or affecting the liability of the Surety hereon in any degree.

It is further expressly agreed by Surety that the City of Nacogdoches or its representatives are at liberty at any time, without notice to the Surety, to make any change in the Contract Documents and in the Work to be done thereunder, as provided in the Contract, and in the terms and conditions thereof, or to make any change in, addition to, or deduction from the work to be done thereunder; and that such changes, if made, shall not in any way vitiate the obligation in this bond and undertaking or release the Surety therefrom.

It is further expressly agreed and understood that the Contractor and Surety will fully indemnify and hold harmless the City of Nacogdoches from any liability, loss, cost, expense, or damage arising out of or in connection with the work done by the Contractor under the Contract. In the event that the City of Nacogdoches shall bring any

suit or other proceeding at law on the Contract or this bond or both, the Contractor and Surety agree to pay to the City the actual amounts of attorneys' fees incurred by the city in connection with such suit.

This bond and all obligations created hereunder shall be performable in NACOGDOCHES County, Texas. This bond is given in compliance with the provisions of Chapter 2253 of the Texas Government Code, as amended, which is incorporated herein by this reference. However, all of the express provisions hereof shall be applicable whether or not within the scope of said statute.

Notices required or permitted hereunder shall be in writing and shall be deemed delivered when actually received or, if earlier, on the third day following deposit in a United State Postal Service post office or receptacle, with proper postage affixed (certified mail, return receipt requested), addressed to the respective other party at the address prescribed in the Contract Documents, or at such other address as the receiving party may hereafter prescribe by written notice to the sending party.

IN WITNESS THEREOF, the said Contractor and Surety have signed and sealed this instrument on the respective dates written below their signatures and have attached current Power of Attorney.

ATTEST and SEAL: (if a corporation) (SEAL)
WITNESS: (if not a corporation)

By: _____
Name:
Title:

_____
(Name of Contractor)

By: _____
Name:
Title:
Date:

ATTEST/WITNESS (SEAL)

By: _____
Name:
Title:
Date:

_____
(Full Name of Surety)

_____
(Address of Surety for Notice)

_____

By: _____
Name:
Title:
Date:

REVIEWED:

_____
City Attorney's Office

THE FOREGOING BOND IS ACCEPTED
ON BEHALF OF
THE CITY OF NACOGDOCHES, TEXAS:

_____
City Manager

NOTE: Date of bonds must be equal to or after the date of execution by City.

TEXAS STATUTORY PAYMENT BOND Project No._____

THE STATE OF TEXAS §
§ KNOW ALL MEN BY THESE PRESENTS:
THE COUNTY OF NACOGDOCHES §

THAT WE, _____, as Principal, hereinafter called "Principal" and the other subscriber hereto _____, a corporation organized and existing under the laws of the State of _____, licensed to business in the State of Texas and admitted to write bonds, as Surety, herein after called "Surety", do hereby acknowledge ourselves to be held and firmly bound to the City of Nacogdoches, a municipal corporation, in the sum of **One Million Three Hundred Five Thousand Nine Hundred Two and 00/100 Dollars ($ 1,305,902.00)** for payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns jointly and severally.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH THAT:

WHEREAS, Principal has entered into a certain contract with the City of Nacogdoches, dated the _____ day of _____, 20___, for **Construction Services for ARPA Collection System Improvements Project** which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW THEREFORE, the condition of this obligation is such that if Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the work provided for in said contract, then, this obligation shall be null and void; otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of said Code to the same extent as if it were copied at length herein.

IN WITNESS THEREOF, the said Principal and Surety have signed and sealed this instrument on the respective dates written below their signatures.

ATTEST and SEAL: (if a corporation) (SEAL)
WITNESS: (if not a corporation)

_____
(Name of Contractor)

By: _____
Name:
Title:

By: _____
Name:
Title:
Date:

ATTEST/WITNESS (SEAL)

_____
(Full Name of Surety)

By: _____
Name:
Title:
Date:

_____
(Address of Surety for Notice)

_____

By: _____
Name:
Title:
Date:

REVIEWED:

THE FOREGOING BOND IS ACCEPTED
ON BEHALF OF
THE CITY OF NACOGDOCHES, TEXAS:

_____
City Attorney's Office

_____
City Manager

NOTE: Date of bonds must be equal to or after the date of execution by City.

Exhibit D
CERTIFICATES OF INSURANCE AND ENDORSEMENTS

Exhibit E
FINAL AFFIDAVIT OF ALL BILLS PAID

FINAL BILLS PAID AFFIDAVIT
BY CONTRACTOR

BEFORE ME, the undersigned authority, personally appeared as

_____, known to me to be a credible person, and after
(Name)

being by me duly sworn, upon oath stated and affirmed that: "My name is

_____ and I am the _____
(Name) (Title)

of _____", hereafter referred to in this affidavit as
(Firm)

"Contractor". Contractor's business address is _____,
(Address)

Texas, _____ . The undersigned Contractor has personal knowledge of the facts
(Zip)

stated herein and has full authority to make the agreements in this affidavit on behalf of Contractor.

Pursuant to and in accordance with a written contract between Contractor and

_____ , collectively referred to as Owner, Contractor furnished
(Owner)

materials and labor for the construction, renovation, installation or repair of certain improvements (the "Improvements"), being City of Nacogdoches contract for

_____.
(Project Name)

All work provided for under said written construction contract, together with all changes and supplements thereto, has been fully completed in accordance with the terms and provisions of said contract.

Contractor has paid each of its subcontractors, laborers, suppliers and materialmen in full for all labor and materials provided to Contractor for or in connection with the construction, renovation or repair of the Improvements.

Contractor is not aware of any unpaid bills, claims, demands or causes of action by any of its subcontractors, laborers, manufacturers, suppliers or materialmen for or in connection with the furnishing of labor materials, or both, for the construction, renovation or repair of the Improvements.

Contractor further understands that this Final Bills Paid Affidavit is being given pursuant to and in accordance with Section 53.085 of the Texas Property Code and that the

intentional, knowing or reckless making of a false or misleading statement in this Affidavit constitutes an offense under said Section and is a Class A misdemeanor.

Contractor hereby indemnifies and holds harmless the City of Nacogdoches from any and all claims, demands or causes of action, and any costs, expenses and attorney's fees incurred in connection therewith, arising from or connected with, the statements and representations contained herein.

EXECUTED this ____ day of _____ , 20____.

CONTRACTOR:

By: _____

Name: _____

Title: _____

Notary's Acknowledgement

Before me, the undersigned authority, on this day personally appeared_____ _____, who first being duly sworn by me to be the person whose name is subscribed to the foregoing Final Bills Paid Affidavit, acknowledged that he/she has the authority to make this Final Bills Paid Affidavit, and further acknowledged to me that he/she executed the same for the purpose and consideration therein expressed.

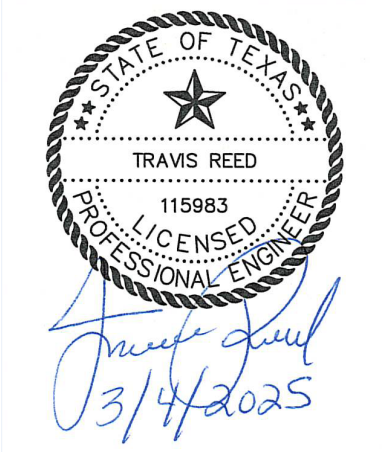
GIVEN UNDER MY HAND AND SEAL OF OFFICE on this the_____ day of_____ _____ , 20____.

_____

Exhibit F
PLANS, SPECIFICATIONS AND DRAWINGS

TECHNICAL SPECIFICATIONS – TABLE OF CONTENTS
ARPA Collection System Improvements
City of Nacogdoches, Texas

Division	Section Title	Pages
	SPECIFICATIONS GROUP	
	Facility Construction Subgroup	
DIVISION 03 - CONCRETE		
031000.00	CONCRETE FORMING & ACCESSORIES	9
032000.00	CONCRETE REINFORCING	5
033000.00	CAST-IN-PLACE CONCRETE	10
033900.00	CONCRETE CURING	2
036000.00	GROUTING	5
	Site and Infrastructure Subgroup	
DIVISION 31 - EARTHWORK		
310513.00	SOILS FOR EARTHWORK	3
311000.00	SITE CLEARING	3
312213.00	ROUGH GRADING	4
312316.00	EXCAVATION	2
312317.00	TRENCHING	6
312500.00	EROSION AND SEDIMENTATION CONTROLS	2
DIVISION 32 - EXTERIOR IMPROVEMENTS		
329219.00	SEEDING & SODDING	6
DIVISION 33 - UTILITIES		
330130.13	PIPE AND MANHOLE TESTING	5
330130.16	TV INSPECTION OF SANITARY & STORM SEWER PIPELINES	3
330513.16	PUBLIC MANHOLES AND STRUCTURES	8
330516.13	PRECAST CONCRETE UTILITY STRUCTURES	10
331113.00	PUBLIC UTILITY PIPING	9
400000.00	PIPE BURSTING	4



END OF TABLE OF CONTENTS

SECTION 03 10 00 – CONCRETE FORMING & ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Formwork for cast-in place concrete.
2. Shoring, bracing, and anchorage.
3. Form accessories.
4. Form stripping.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCES

A. American Concrete Institute:

1. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials.
2. ACI 301 - Specifications for Structural Concrete.
3. ACI 318 - Building Code Requirements for Structural Concrete.
4. ACI 347 - Guide to Formwork for Concrete.

B. American Forest and Paper Association:

1. AF&PA - National Design Specifications for Wood Construction.

C. The Engineered Wood Association:

1. APA/EWA PS 1 - Voluntary Product Standard for Construction and Industrial Plywood.

D. American Society of Mechanical Engineers:

1. ASME A17.1 - Safety Code for Elevators and Escalators.

E. ASTM International:

1. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
2. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials.

F. West Coast Lumber Inspection Bureau:

1. WCLIB - Standard Grading Rules for West Coast Lumber.

1.4 DESIGN REQUIREMENTS

A. Design, engineer and construct formwork, shoring and bracing in accordance with the ACI to conform to design requirements to achieve concrete shape, line and dimension as indicated in the plan Drawings.

1.5 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. If a releasing agent is used, provide a product data and application method submittal.

C. Only provide the following formwork submittals when structures exceed 20’ in length or when noted in the Plan Drawings.

1. Shop Drawings Signed and sealed by professional engineer.

a. Submit formwork, shoring, and reshoring shop drawings.
b. Indicate the following:

1) Pertinent dimensions, openings, methods of construction, types of connections, materials, joint arrangement and details, ties and shores, location of framing, studding and bracing, and temporary supports.
2) Means of leakage prevention for concrete exposed to view in finished construction.
3) Sequence and timing of erection and stripping assumed compressive strength at time of stripping, height of lift and height of drop during placement.
4) Vertical, horizontal and special loads in accordance with ACI 347, Section 2.2 and camber diagrams, when applicable.
5) Notes to formwork erector showing size and location of conduits and piping embedded in concrete in accordance with ACI 318, Section 6.3.
6) Procedure and schedule for removal of shores and installation and removal of reshores.

2. Product Data: Submit data on void form materials and installation requirements.

3. Design Data: Signed and sealed by professional engineer.

a. Indicate design data for any required formwork, shoring, and reshores.
b. Indicate loads transferred to structure during process of concreting, shoring and reshoring.
c. Include structural calculations to support design.

1.6 QUALITY ASSURANCE

A. Perform Work in accordance with the ACI.

B. For wood products furnished for work of this Section, comply with AF&PA.

C. Perform Work in accordance with all local and state standard specifications.

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1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver void forms and installation instructions in manufacturer's packaging.

B. Store off ground in ventilated and protected manner to prevent deterioration from moisture.

1.8 COORDINATION

A. Coordinate this Section with other sections of work, requiring attachment of components to formwork.

PART 2 - PRODUCTS

2.1 WOOD FORM MATERIALS

A. Form Materials: At discretion of Contractor.

1. Forms shall be of suitable material and of a type, size, shape, quality and strength to insure construction as designed.
2. Wood products for use in forming concrete shall conform to ACI Standard SP-4 Formwork for Concrete.
3. The forms shall be true to line and grade, mortar tight and sufficiently rigid to resist deflection during placing of the concrete. The responsibilities for adequacy shall rest with the CONTRACTOR.
4. All dirt, chips, sawdust, nails and other foreign matter shall be completely removed from forms before any concrete is deposited therein. The surfaces of forms shall be smooth and free from irregularities, dents, sags and holes that would deface the finished surfaces. Forms previously used shall be thoroughly cleaned of all dirt, mortar and foreign matter before being reused.

2.2 PREFABRICATED FORMS

A. Furnish and install materials in accordance with state, local, and manufacturer’s specifications & standards.

B. Preformed Steel Forms: Minimum 16gage matched, tight fitting, stiffened to support weight of concrete without deflection detrimental to tolerances and appearance of finished surfaces.

C. Glass Fiber Fabric Reinforced Plastic Forms: Matched, tight fitting, stiffened to support weight of concrete without deflection detrimental to tolerances and appearance of finished concrete surfaces.

D. Pan Type: Steel or Glass fiber of size and profile required.

E. Tubular Column Type: Round, spirally wound laminated fiber, wood, or glass fiber material, surface treated with release agent, non-reusable, sizes as indicated in drawings.

F. Void Forms: Moisture resistant treated paper faces, biodegradable, structurally sufficient to support weight of wet concrete mix until initial set; min 2inches thick.

G. Steel Forms: Sheet steel, suitably reinforced, and designed for particular use indicated on Drawings.

H. Form Liners: Smooth, durable, grainless and non-staining hardboard, unless otherwise indicated on Drawings.

I. Framing, Studding and Bracing: Stud or No. 3 structural light framing grade.

2.3 FORMWORK ACCESSORIES

A. Form Ties: Metal form ties of an approved type or an approved substitute shall be used to hold forms in place. All metal ties or other appliances used inside the forms to hold them in correct alignment shall be removed to a depth of at least ½-inches from the surface of the concrete. Burning off of rods, bolts or ties shall not be permitted. The cavities produced shall be carefully cleaned and completely filled with retempered sand-cement mortar mixed in proportions of 1-to-3 and the concrete shall be left smooth and even.

B. Spreaders: Standard, non-corrosive metal form clamp assembly, of type acting as spreaders and leaving no metal within 1 inch of concrete face. Wire ties, wood spreaders, through bolts or pipe spreaders are not permitted.

C. Form Anchors and Hangers:

1. Do not use anchors and hangers exposed concrete leaving exposed metal at concrete surface.
2. Symmetrically arrange hangers supporting forms from structural steel members to minimize twisting or rotation of member.
3. Penetration of structural steel members is not permitted.

D. Form Release Agent: The contractor is allowed, but not required to use form release agents. Colorless mineral oil that will not stain concrete, or absorb moisture, or impair natural bonding or color characteristics of coating intended for use on concrete. Care shall be exercised that no releasing agent is deposited on previously placed concrete, reinforcement or embedded metal items.

E. Vapor Retarder: Where indicated on Drawings, 8 mil thick polyethylene sheet.

F. Bituminous Joint Filler: ASTM D1751.

G. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Size, strength and character to maintain formwork in place while placing concrete.

H. Water Stops: Type & size as indicated in drawings. Minimum requirements: Rubber/PVC, minimum 1,750 psi tensile strength, minimum 50 degrees F to plus 175 degrees F working temperature range, min 6 inch wide, maximum possible lengths, ribbed profile, preformed corner sections, heat welded jointing. Water stops are not required where walls act strictly as baffles. Water stops must be cast in to concrete on both sides formed into keyways. Not to be inserted into concrete after concrete is poured.

2.4 COATINGS

A. Coatings for Aluminum: Polyamide epoxy finish coat with paint manufacturer's recommended primer for aluminum substrate. Apply one coat primer and one coat finish

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify lines, levels, and centers before proceeding with formwork. Verify dimensions agree with Drawings.

B. When formwork is placed after reinforcement resulting in insufficient concrete cover over reinforcement before proceeding, request instructions from Engineer.

3.2 INSTALLATION

A. Earth Forms: Earth forms are not permitted unless contractor receives written approval from engineer. When approved, the following shall apply:

1. Trench earth forms neatly, accurately, and at least 2 inches wider than footing widths indicated on Drawings.
2. Trim sides and bottom of earth forms.
3. Construct wood edge strips at top of each side of trench to secure reinforcing and prevent trench from sloughing.
4. Form sides of footings where earth sloughs.
5. Tamp earth forms firm and clean forms of debris and loose material before depositing concrete.

B. Formwork - General:

1. Provide top form for sloped surfaces steeper than 1.5 horizontal to 1 vertical to hold shape of concrete during placement, unless it can be demonstrated that top forms can be omitted.
2. Construct forms to correct shape and dimensions, mortar-tight, braced, and of sufficient strength to maintain shape and position under imposed loads from construction operations.
3. Camber forms where necessary to produce level finished soffits unless otherwise shown on Drawings.
4. Carefully verify horizontal and vertical positions of forms. Correct misaligned or misplaced forms before placing concrete.
5. Complete wedging and bracing before placing concrete.

C. Forms for Smooth Finish Concrete:

1. Smooth finish concrete is required for all surfaces that shall not be completely enclosed or hidden below the permanent surface of the ground.
2. Use steel, plywood or lined board forms.
3. Use clean and smooth plywood and form liners, uniform in size, and free from surface and edge damage capable of affecting resulting concrete finish.
4. Install form lining with close-fitting square joints between separate sheets without springing into place.
5. Use full size sheets of form lines and plywood wherever possible.
6. Tape joints to prevent protrusions in concrete.
7. Use care in forming and stripping wood forms to protect corners and edges.
8. Level and continue horizontal joints.
9. Keep wood forms wet until stripped.
10. Any lumber or material which becomes badly checked or warped prior to placing concrete shall not be used.

D. Architectural Form Liners:

1. Erect architectural side of formwork first.
2. Attach form liner to forms before installing form ties.
3. Install form liners square, with joints and pattern aligned.
4. Seal form liner joints to prevent grout leaks.
5. Dress joints and edges to match form liner pattern and texture.

E. Forms for Surfaces to Receive Membrane Waterproofing: Use plywood or steel forms. After erection of forms, tape form joints to prevent protrusions in concrete.

F. Framing, Studding and Bracing:

1. Space studs at 16 inches on center maximum for boards and 12 inches on center maximum for plywood.
2. Size framing, bracing, centering, and supporting members with sufficient strength to maintain shape and position under imposed loads from construction operations.
3. Construct beam soffits of material minimum of 2 inches thick.
4. Distribute bracing loads over base area on which bracing is erected.
5. When placed on ground, protect against undermining, settlement or accidental impact.

G. Erect formwork, shoring, and bracing to achieve design requirements, in accordance with requirements of ACI 301 and ACI 318.

H. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.

I. Obtain Architect/Engineer’s approval before framing openings in structural members not indicated on Drawings.

J. Install fillet and chamfer strips on external corners of beams, joists and, columns

K. Install void forms in accordance with manufacturer's recommendations.

L. Do not reuse wood formwork more than 3 times for concrete surfaces to be exposed to view. Do not patch formwork.

3.3 APPLICATION - FORM RELEASE AGENT

A. Apply form release agent on formwork in accordance with manufacturer's recommendations.

B. Apply PRIOR to placement of reinforcing steel, anchoring devices, and embedded items. Care shall be exercised that no releasing agent is deposited on previously placed concrete, reinforcement or embedded metal items.

C. Do not apply form release agent where concrete surfaces are indicated to receive special finishes or applied coverings that are affected by agent. Soak inside surfaces of untreated forms with clean water. Keep surfaces coated prior to placement of concrete.

D. Reuse and Coating of Forms: Thoroughly clean forms and reapply form coating before each reuse. For exposed work, do not reuse forms with damaged faces or edges. Apply form coating to forms in accordance with manufacturer’s specifications. Do not coat forms for concrete indicated to receive “scored finish”. Apply form coatings before placing reinforcing steel.

3.4 INSTALLATION - INSERTS, EMBEDDED PARTS, AND OPENINGS

A. Install formed openings for items to be embedded in or passing through concrete work.

B. Locate and set in place items required to be cast directly into concrete.

C. Coordinate with Work of other sections & plan drawings in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other Work.

D. Install accessories straight, level, and plumb. Ensure items are not disturbed during concrete placement.

E. Install water stops continuous without displacing reinforcement. Heat seal joints watertight

F. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection. Locate openings at bottom of forms to allow flushing water to drain.

G. Close temporary openings with tight fitting panels, flush with inside face of forms, and neatly fitted so joints will not be apparent in exposed concrete surfaces.

H. Form Ties:

1. Use sufficient strength and sufficient quantity to prevent spreading of forms.
2. Place ties at least 1 inch away from finished surface of concrete.
3. Leave inner rods in concrete when forms are stripped.
4. Space form ties equidistant, symmetrical and aligned vertically and horizontally unless otherwise shown on Drawings.

I. Arrangement: Arrange formwork to allow proper erection sequence and to permit form removal without damage to concrete.

J. Construction Joints:

1. Install surfaced pouring strip where construction joints intersect exposed surfaces to provide straight line at joints.
2. Just prior to subsequent concrete placement, remove strip and tighten forms to conceal shrinkage.
3. Show no overlapping of construction joints. Construct joints to present same appearance as butted plywood joints.
4. Arrange joints in continuous line straight, true and sharp.

K. Embedded Items:

1. Make provisions for pipes, sleeves, anchors, inserts, reglets, anchor slots, nailers, water stops, and other features.
2. Do not embed wood or uncoated aluminum in concrete.
3. Obtain installation and setting information for embedded items furnished under other Specification sections.
4. Securely anchor embedded items in correct location and alignment prior to placing concrete.
5. Verify conduits and pipes, including those made of coated aluminum, meet requirements of ACI 318 for size and location limitations.

L. Openings for Items Passing Through Concrete:

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1. Frame openings in concrete where indicated on Drawings. Establish exact locations, sizes, and other conditions required for openings and attachment of work specified under other sections.
2. Coordinate work to avoid cutting and patching of concrete after placement.
3. Perform cutting and repairing of concrete required as result of failure to provide required openings.

M. Screeds:

1. Set screeds and establish levels for tops of concrete slabs and levels for finish on slabs.
2. Slope slabs to drain where required or as shown on Drawings.
3. Before depositing concrete, remove debris from space to be occupied by concrete and thoroughly wet forms. Remove freestanding water.

N. Screed Supports:

1. For concrete over waterproof membranes and vapor retarder membranes, use cradle, pad or base type screed supports which will not puncture membrane.
2. Staking through membrane is not be permitted.

O. Cleanouts and Access Panels:

1. Provide removable cleanout sections or access panels at bottoms of forms to permit inspection and effective cleaning of loose dirt, debris and waste material.
2. Clean forms and surfaces against which concrete is to be placed. Remove chips, saw dust and other debris. Thoroughly blow out forms with compressed air just before concrete is placed.

3.5 FORM CLEANING

A. Clean forms as erection proceeds, to remove foreign matter within forms.

B. Clean formed cavities of debris prior to placing concrete.

C. Flush with water or use compressed air to remove remaining foreign matter. Ensure that water and debris drain to exterior through clean-out ports.

D. During cold weather, remove ice and snow from within forms. Do not use de-icing salts. Do not use water to clean out forms, unless formwork and concrete construction proceed within heated enclosure. Use compressed air or other means to remove foreign matter.

3.6 FORM REMOVAL

A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads and removal has been approved by Architect/Engineer.

B. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view. Do not jar the formwork during the initial set.

C. Store removed forms in manner that surfaces to be in contact with fresh concrete will not be damaged. Discard damaged forms.

D. Leave forms in place for minimum number of days as specified in ACI 347.

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3.7 ERECTION TOLERANCES

A. Construct formwork to maintain tolerances required by ACI 301 and ACI 318.

3.8 FIELD QUALITY CONTROL

A. Inspect erected formwork, shoring, and bracing to ensure that work is in accordance with formwork design, and that supports, fastenings, wedges, ties, and items are secure.

B. Notify Architect/Engineer after placement of reinforcing steel in forms, but prior to placing concrete. Contractor shall five the owner & engineer a minimum 24 hours notice before beginning placement of concrete to permit the inspection of forms & rebar

C. Schedule concrete placement to permit formwork inspection before placing concrete.

END OF SECTION

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SECTION 03 20 00 - CONCRETE REINFORCING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Reinforcing bars.
2. Welded wire fabric.
3. Reinforcement accessories.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCES

A. American Concrete Institute:

1. ACI 301 - Specifications for Structural Concrete.
2. ACI 318 - Building Code Requirements for Structural Concrete.
3. ACI 530.1 - Specifications for Masonry Structures.
4. ACI SP-66 - ACI Detailing Manual.

B. ASTM International:

1. ASTM A82/A82M - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.
2. ASTM A184/A184M - Standard Specification for Fabricated Deformed Steel Bar Mats for Concrete Reinforcement.
3. A185/A185M-07 Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.
4. ASTM A496/A496M - Standard Specification for Steel Wire, Deformed, for Concrete Reinforcement.
5. ASTM A497/A497M - Standard Specification for Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement.
6. ASTM A615/A615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
7. ASTM A704/A704M - Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement.
8. ASTM A706/A706M - Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.
9. ASTM A767/A767M - Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.
10. ASTM A775/A775M - Standard Specification for Epoxy-Coated Steel Reinforcing Bars.

11. ASTM A884/A884M - Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement.
12. ASTM A934/A934M - Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars.
13. ASTM A996/A996M - Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement.

C. American Welding Society:

1. AWS D1.4 - Structural Welding Code - Reinforcing Steel.

D. Concrete Reinforcing Steel Institute:

1. CRSI - Manual of Standard Practice.
2. CRSI - Placing Reinforcing Bars.

1.4 SUBMITTALS

A. Shop Drawings: Indicate bar sizes, spacing's, locations, and quantities of reinforcing steel and welded wire fabric, bending and cutting schedules, and supporting and spacing devices

B. Certificates: Submit AWS qualification certificate for welders employed on the Work.

C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1. Submit certified copies of mill test report of reinforcement materials analysis.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 301 and ACI 318

B. Prepare shop drawings in accordance with ACI SP-66.

C. Perform Work in accordance with state and local standard specifications.

1.6 QUALIFICATIONS

A. Welders: AWS qualified within previous 12 months.

PART 2 - PRODUCTS

2.1 REINFORCEMENT

A. Reinforcing Steel: ASTM A615/A615M,60 ksi yield grade, deformed billet bars, uncoated finish.

B. Deformed Reinforcement: ASTM A996/A996M; 60 ksi yield strength, Type R steel bars, unfinished.

C. Welded Deformed Wire Fabric: ASTM A497/A497M; in flat sheets; unfinished.

D. Structural steel shall be A-36 unless otherwise noted on plans.

2.2 ACCESSORY MATERIALS

A. Tie Wire: Minimum 16 gage annealed type.

B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions including load bearing pad on bottom to prevent vapor retarder puncture.

C. Special Chairs, Bolsters, Bar Supports, Spacers Adjacent to Weather Exposed Concrete Surfaces: Plastic-coated steel type; size and shape to meet Project conditions.

2.3 FABRICATION

A. Fabricate concrete reinforcement in accordance with CRSI Manual of Practice ACI 318.

B. Form standard hooks for 180 degree bends, 90 degree bend, stirrup and tie hooks, as indicated on Drawings.

C. Form reinforcement bends with minimum diameters in accordance with ACI 318.

D. Fabricate column reinforcement with offset bends at reinforcement splices.

E. Form spiral column reinforcement from minimum 3/8 inch diameter continuous deformed bar or wire.

F. Form ties and stirrups from the following:

1. For bars No. 10 and Smaller: No. 3 deformed bars.
2. For bars No. 11 and Larger: No. 4 deformed bars.

G. Weld reinforcement in accordance with AWS D1.4.

H. Locate reinforcement splices not indicated on Drawings, at point of minimum stress.

PART 3 - EXECUTION

3.1 PLACEMENT

A. Place, support and secure reinforcement against displacement. Do not deviate from required position beyond specified tolerance.

1. Do not weld crossing reinforcement bars for assembly except as permitted by Engineer.

B. Do not displace or damage vapor retarder.

C. Accommodate placement of formed openings.

D. Space reinforcement bars with minimum clear spacing in accordance with ACI 318.

1. Where bars are indicated in multiple layers, place upper bars directly above lower bars.

E. Maintain concrete cover around reinforcement in accordance with ACI 318 as follows:

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Reinforcement Location		Minimum Concrete Cover
Footings and Concrete Formed Against Earth		3 inches
Concrete exposed to earth or weather	No. 6 bars and larger	2 inches
	No. 5 bars and smaller	1-1/2 inches
Supported Slabs, Walls, and Joists	No. 14 bars and larger	1-1/2 inches
	No. 11 bars and smaller	3/4 inches
Beams and Columns		1-1/2 inches
Shell and Folded Plate Members	No. 6 bars and larger	3/4 inches
	No. 5 bars and smaller	1/2 inches

F. If applicable, bond and ground reinforcement in accordance with the requirements outlined in the electrical plans.

3.2 ERECTION TOLERANCES

A. Install reinforcement within the following tolerances for flexural members, walls, and compression members:

Reinforcement Depth	Depth Tolerance	Concrete Cover Tolerance
Greater than 8 inches	plus or minus 3/8 inch	minus 3/8 inch
Less than 8 inches	plus or minus 1/2 inch	minus 1/2 inch

B. Install reinforcement within the tolerances specified in ACI 530.1 for foundation walls.

3.3 FIELD QUALITY CONTROL

A. Perform field inspection and testing in accordance with ACI 318.

B. Provide free access to Work and cooperate with appointed firm.

C. Reinforcement Inspection:

1. Placement Acceptance: Specified and ACI 318 material requirements and specified placement tolerances.
2. Welding: Inspect welds in accordance with AWS D1.1.
3. Periodic Placement Inspection: Inspect for correct materials, fabrication, sizes, locations, spacing, concrete cover, and splicing.
4. Weldability Inspection: Inspect for reinforcement weldability when formed from steel other than ASTM A706/A706M.
5. Continuous Weld Inspection: Inspect reinforcement as required by ACI 318.
6. Periodic Weld Inspection: Other welded connections.

END OF SECTION

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SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes Cast-in-Place Concrete for Following Items:

1. Building frame members.
2. Beams, lintels, and columns.
3. Shear walls.
4. Retaining walls.
5. Foundation walls.
6. Footings.
7. Supported slabs.
8. Slabs on grade.
9. Control, expansion, and contraction joint devices.
10. Equipment pads.
11. Light pole base.
12. Flagpole base.
13. Thrust blocks.
14. Manholes.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCE STANDARDS

A. American Concrete Institute:

1. ACI 301 - Specifications for Structural Concrete.
2. ACI 305R - Guide to Hot Weather Concreting.
3. ACI 306.1 - Standard Specification for Cold Weather Concreting.
4. ACI 308.1 - Specification for Curing Concrete.
5. ACI 318 - Building Code Requirements for Structural Concrete.

B. ASTM International:

1. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
2. ASTM C31 - Standard Practice for Making and Curing Concrete Test Specimens in the Field.
3. ASTM C33 - Standard Specification for Concrete Aggregates.
4. ASTM C39 - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.

5. ASTM C42 - Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
6. ASTM C94 - Standard Specification for Ready-Mixed Concrete.
7. ASTM C143 - Standard Test Method for Slump of Hydraulic-Cement Concrete.
8. ASTM C150 - Standard Specification for Portland Cement.
9. ASTM C172 - Standard Practice for Sampling Freshly Mixed Concrete.
10. ASTM C173 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
11. ASTM C231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
12. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
13. ASTM C330 - Standard Specification for Lightweight Aggregates for Structural Concrete.
14. ASTM C494 - Standard Specification for Chemical Admixtures for Concrete.
15. ASTM C595 - Standard Specification for Blended Hydraulic Cements.
16. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
17. ASTM C685 - Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing.
18. ASTM C845 - Standard Specification for Expansive Hydraulic Cement.
19. ASTM C989 - Standard Specification for Slag Cement for Use in Concrete and Mortars.
20. ASTM C1017 - Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
21. ASTM C1064 - Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
22. ASTM C1107 - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
23. ASTM C1116 - Standard Specification for Fiber-Reinforced Concrete.
24. ASTM C1157 - Standard Performance Specification for Hydraulic Cement.
25. ASTM C1218 - Standard Test Method for Water-Soluble Chloride in Mortar and Concrete.
26. ASTM C1240 - Standard Specification for Silica Fume Used in Cementitious Mixtures.
27. ASTM D994 - Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).
28. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
29. ASTM D1752 - Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction.
30. ASTM D6690 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
31. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.
32. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
33. ASTM E1643 - Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs.
34. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs.

1.4 COORDINATION

A. Coordinate placement of joint devices with erection of concrete formwork and placement of form accessories.

1.5 SUBMITTALS

A. Product Data: Submit data on joint devices and attachment accessories.

B. Design Data:

1. Submit concrete mix design for each concrete strength.
2. Submit separate mix designs if admixtures are required for following:

a. Hot and cold weather concrete Work.
b. Air entrained concrete Work.

3. Identify mix ingredients and proportions, including admixtures.
4. Identify chloride content of admixtures and whether or not chlorides were added during manufacture.

C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

D. Manufacturer Instructions: Submit installation procedures and interfacing required with adjacent Work.

E. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

1.6 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for submittals.

B. Project Record Documents: Record actual locations of embedded utilities and components concealed from view in finished construction.

1.7 QUALITY ASSURANCE

A. Concrete mixing plant shall conform to TxDOT standards and be certified in the state of Texas.

B. Perform Work according to ACI 318.

C. Comply with ACI 305R when pouring concrete during hot weather.

D. Comply with ACI 306.1 when pouring concrete during cold weather.

E. Acquire cement and aggregate from one source for Work.

F. Perform Work according to city standards.

1.8 AMBIENT CONDITIONS

A. Maintain concrete temperature after installation at minimum 50 degrees F for minimum seven days.

B. Maintain high-early strength concrete temperature after installation at minimum 50 degrees F for minimum three days.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Concrete:

1. Cement:

a. Comply with ASTM C150
b. Type: Portland.

2. Blended Cement:

a. Comply with ASTM C595.

3. Hydraulic Cement:

a. Comply with ASTM C1157.

4. Normal Weight Aggregates:

a. Comply with ASTM C33.
b. Coarse Aggregate Maximum Size: According to ACI 318.

5. Lightweight Aggregate:

a. Comply with ASTM C330.
b. Coarse Aggregate Maximum Size: According to ACI 318.

6. Water:

a. Comply with ACI 318.
b. Potable, without deleterious amounts of chloride ions.
c. Furnish materials according to city standards.

7. Air Entrainment: Comply with ASTM C260.
8. Chemical:

a. Comply with ASTM C494.

9. Fly Ash Calcined Pozzolan: Comply with ASTM C618, Class C.
10. Silica Fume: Comply with ASTM C1240.
11. Slag:

a. Description: Ground-granulated blast-furnace slag.
b. Comply with ASTM C989.
c. Grade 100.

12. Plasticizing:

a. Comply with ASTM C1017.
b. Type I, plasticizing.

B. Joint Devices and Filler:

1. Joint Filler, Type A:

   a. Description: Asphalt-impregnated fiberboard or felt.
   b. Comply with ASTM D1751 D994.
   c. Thickness: 1/4 inch.
   d. Profile: Tongue-and-groove.

2. Joint Filler, Type B:

   a. Description: Recycled PVC.
   b. Comply with ASTM D1752.
   c. Thickness: 1/4 inch.

3. Joint Filler, Type C:

   a. Description: Premolded sponge rubber.
   b. Comply with ASTM D1752.
   c. Thickness: 1/4 inch.

4. Construction Joint Devices:

   a. Material: Integral extruded plastic.
   b. Thickness: 1/2 inch.
   c. Profile: Tongue-and-groove with removable top strip exposing sealant trough and knockout holes spaced at 6 inches o.c.

5. Expansion and Contraction Joint Devices:

   a. Comply with ASTM B221.
   b. Material: Extruded aluminum.
   c. Filler Strip: Resilient neoprene with Shore A hardness of 35 to permit plus or minus 25 percent joint movement with full recovery.
   d. Cover Plate: Extruded aluminum, of longest manufactured length at each location, and recessed mounted.
   e. Color: As selected.

6. Sealant:

   a. Description: two-part liquid neoprene.

2.2 CONCRETE MIX

A. Select proportions for concrete according to ACI 318 field test data.

B. Performance and Design Criteria:

Class of Concrete [1]	Minimum Cementitious Lb./CY	28 Day Min. Compressive Strength [2] psi	28 Day Min. Beam Strength [2,3] psi	Maximum Water/ Cementitious Ratio	Coarse Aggregate Maximum Size [4]

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A	470	3000	500	0.58	1.5”
B	376	2000	330	0.71	1.5”
C	564	3600	600	0.53	1.5”
D	282	1500	250	0.97	1.5”
E	564	3000	500	0.62	1.5”
F	611	4200	700	0.49	1.5”
S	564	3600	600	0.44	1.5”
H[5]	611	See Plans	N/A	0.49	1”
M	As directed	As directed	As Directed	As Directed	As Directed

(1) All exposed horizontal concrete shall have entrained air
(2) Min strength required by owner
(3) ASTM C78 (Third Point); Reduced by 10% when Typ II Cement used
(4) Smaller nominal max size aggregate may be used if strength satisfied
(5) Prestressed concrete

C. Admixtures:

1. Include admixture types and quantities indicated in concrete mix designs only if approved by Architect/Engineer.
2. Do not use calcium chloride or admixtures containing calcium chloride.
3. Add air entrainment admixture to concrete mix for Work exposed to freezing and thawing.
4. For concrete exposed to deicing chemicals, limit fly ash, pozzolans, silica fumes, and slag content as required by applicable code.

D. Average Compressive Strength Reduction: Permitted according to ACI 318.

E. Ready-Mixed Concrete: Mix and deliver concrete according to ASTM C94 & C685.

F. Site-Mixed Concrete: Mix concrete according to ACI 318.

2.3 ACCESSORIES

A. Vapor Retarder:

1. Description: Clear polyethylene film.
2. Comply with ASTM E1745, Class A B C.
3. Thickness: 6 mils.
4. Type: As recommended for below-grade application.
5. Joint Tape: As recommended by manufacturer.

B. Non-shrink Grout:

1. Description: Premixed compound consisting of non-metallic aggregate, cement, and water-reducing and plasticizing agents.
2. Comply with ASTM C1107.
3. Minimum Compressive Strength: 2,400 psi in 48 hours and 7,000 psi in 28 days.

C. Concrete Reinforcing Fibers:

1. Description: High-strength industrial-grade fibers specifically engineered for secondary reinforcement of concrete.
2. Comply with ASTM C1116.
3. Tensile Strength: 130 ksi.
4. Toughness: 15 ksi.
5. Fiber Length: 3/4 inch.
6. Fiber Count: 34 million/lb.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for installation examination.

B. Verify requirements for concrete cover over reinforcement.

C. Verify that anchors, seats, plates, reinforcement, and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with placing concrete.

3.2 PREPARATION

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for installation preparation.

B. Previously Placed Concrete:

1. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent.
2. Remove laitance, coatings, and unsound materials.

C. In locations where new concrete is doweled to existing work, drill holes in existing concrete, blow/clean all holes thoroughly, insert steel dowels, and pack solid with non-shrink grout or epoxy.

D. Remove debris and ice from formwork, reinforcement, and concrete substrates.

E. Remove water from areas receiving concrete before concrete is placed.

3.3 INSTALLATION

A. Placing Concrete:

1. Place concrete according to ACI 318.

2. Notify testing laboratory and Engineer minimum 24 hours prior to commencement of operations.
3. Ensure that reinforcement, inserts, embedded parts, formed expansion and contraction joints, not disturbed during concrete placement.
4. Install vapor retarder under interior slabs on grade according to ASTM E1643.
5. Lap joints minimum 6 inches and seal watertight by taping edges and ends.
6. Repairs:

    a. Repair vapor retarder damaged during placement of concrete reinforcement.
    b. Using vapor retarder material, lap over damaged areas minimum6 inches and seal watertight.

7. Joint Filler:

    a. Separate slabs on grade from vertical surfaces with 1/4-inch-thick joint filler.
    b. Place joint filler in floor slab pattern placement sequence; set top to required elevations; secure to resist movement by wet concrete.
    c. Extend joint filler from bottom of slab to within 1/2 inch of finished slab surface.

8. Joint Devices:

    a. Coordination: Install construction joint devices in coordination with floor slab pattern placement sequence; set top to required elevations; secure to resist movement by wet concrete.
    b. Install joint device anchors, maintaining correct position to allow joint cover to be flush with floor and wall finish.
    c. Install joint covers in longest practical length when adjacent construction activity is complete.

9. Deposit concrete at final position, preventing segregation of mix.
10. Place concrete in continuous operation for each panel or section as determined by predetermined joints.
11. Consolidate concrete.
12. Maintain records of concrete placement, including date, location, quantity, air temperature, and test samples taken.
13. Place concrete continuously between predetermined expansion, control, and construction joints.
14. Place floor slabs in indicated checkerboard or saw-cut pattern.
15. Saw-Cut Joints:

    a. Saw-cut joints within 12 hours after placing.
    b. Use 3/16 inch thick blade.
    c. Cut into 1/4 depth of slab thickness.

16. Screeding:

    a. Screed floors and slabs on grade level.
    b. Surface Flatness: maximum 1/4 inch in 10 feet.

B. Concrete Finishing:

1. Provide formed concrete surfaces to be left exposed with smooth-rubbed finish.
2. Finish concrete floor surfaces as specified in Section 03 35 00 - Concrete Finishing and ACI 318.
3. Steel trowel all floor or slab surfaces.

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4. In areas with floor drains, maintain floor elevation at walls and pitch surfaces uniformly to drains at 1/8 inch per foot nominal or as indicated on Drawings.

C. Curing and Protection:

1. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
2. Protect concrete footings from freezing for minimum of 7 days.
3. Maintain concrete with minimal moisture loss at relatively constant temperature for period as necessary for hydration of cement and hardening of concrete.
4. Cure floor surfaces according to ACI 318.

3.4 FIELD QUALITY CONTROL

A. Perform inspection and testing according to ACI 318.

B. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of Work.

C. Field verify locations of all surrounding structures and piping prior to soil disturbing activities or placement of concrete formwork.

D. Concrete Inspections:

1. Continuous Placement Inspection: Inspect for proper installation procedures.
2. Periodic Curing Inspection: Inspect for specified curing temperature and procedures.

E. Strength Test Samples:

1. Sampling Procedures: Comply with ASTM C172.
2. Cylinder Molding and Curing Procedures:

   a. Comply with ASTM C31.
   b. Cylinder Specimens: Field cured.

3. Test cylinders shall be prepared by the contractor for owner's use in quality assurance. A minimum of one set of concrete cylinders shall be prepared for each structure, for each day's pour, and for each 50 CY of concrete poured. Each test set shall consist of at least 4 cylinders. The contractor may at his option elect to prepare additional cylinders for his own use.
4. Sample concrete and make one set of three cylinders for every 75 cu. yd. or less of each class of concrete placed each day, and for every 5,000 sq. ft. of surface area for slabs and walls.
5. If volume of concrete for a class of concrete would provide less than five sets of cylinders, take samples from five randomly selected batches, or from every batch if less than five batches are used.
6. Make one additional cylinder during cold weather concreting and field cure.

F. Field Testing:

1. Slump Test Method: Comply with ASTM C143.
2. Air Content Test Method: Comply with ASTM C173 C231.
3. Temperature Test Method: Comply with ASTM C1064.
4. Compressive Strength Concrete:

a. Measure slump and temperature for each sample.
b. Measure air content in air-entrained concrete for each sample.

G. Cylinder Compressive Strength Testing:

1. Test Method: Comply with ASTM C39.
2. Test Acceptance: According to ACI 318.
3. Test one cylinder at seven days.
4. Test one cylinder at 28 days.
5. Retain one cylinder for 90 days for testing when requested by Engineer.
6. Dispose of remaining cylinders if testing is not required.

H. Core Compressive Strength Testing:

1. Sampling and Testing Procedures: Comply with ASTM C42.
2. Test Acceptance: According to ACI 318.
3. Drill three cores for each failed strength test from failed concrete.

I. Water-Soluble Chloride Ion Concentration Test Method:

1. Comply with ASTM C1218.
2. Test at 28 days.
3. Maximum Chloride Ion Concentration: As permitted by applicable code.

J. Patching:

1. Allow Architect/Engineer to inspect concrete surfaces immediately upon removal of forms.
2. Honeycombing or Embedded Debris in Concrete:

a. Not acceptable.
b. Notify Architect/Engineer upon discovery.

3. Patch imperfections according to ACI 318.

K. Defective Concrete:

1. Description: Concrete not conforming to required lines, details, dimensions, tolerances, or specified requirements.
2. Repair or replacement of defective concrete will be determined by Architect/Engineer.
3. Do not patch, fill, touch up, repair, or replace exposed concrete except upon express direction of Architect/Engineer for each individual area.

3.5 ATTACHMENTS

A. Schedule - Concrete Strengths unless otherwise noted on plan drawings:

1. Sidewalks & Driveways = 3,600 psi @ 28 days.
2. Foundations and slabs on grade = 3,600 psi @ 28 days.
3. Structures = 4,200 psi @ 28 days.
4. Roadway = 4,200 psi @ 28 days.

END OF SECTION

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SECTION 03 39 00 - CONCRETE CURING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes initial and final curing of horizontal and vertical concrete surfaces.

1.2 REFERENCES

A. American Concrete Institute:

1. ACI 301 - Specifications for Structural Concrete.
2. ACI 302.1 - Guide for Concrete Floor and Slab Construction.
3. ACI 308.1 - Standard Specification for Curing Concrete.
4. ACI 318 - Building Code Requirements for Structural Concrete.

B. ASTM International:

1. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete.
2. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
3. ASTM C1315 - Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.
4. ASTM D2103 - Standard Specification for Polyethylene Film and Sheeting.

1.3 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal procedures.

B. Product Data: Submit data on all curing compounds compatibilities, and limitations.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 318.

B. Perform Work in accordance with state and local standard specifications.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver curing materials in manufacturer's packaging including application instructions.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Membrane Curing Compound: ASTM C309, Type 1D, Class A.

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PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify substrate surfaces are ready to be cured.

3.2 INSTALLATION – HORIZONTAL AND VERTICAL SURFACES

A. Cure concrete in accordance with ACI 308.1 using membrane curing method.

B. Membrane Curing Compound: Apply curing compound in two coats with second coat applied at right angles to first.

3.3 PROTECTION OF FINISHED WORK

A. Section 01 70 00 - Execution and Closeout Requirements: Protecting finished Work.

B. Do not permit traffic over unprotected floor surface.

END OF SECTION

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SECTION 03 60 00 - GROUTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Portland cement grout.
2. Rapid curing epoxy grout.
3. Non-shrink cementitious grout.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCES

A. American Concrete Institute:

1. ACI 301 - Specifications for Structural Concrete.
2. ACI 318 - Building Code Requirements for Structural Concrete.

B. American Society of Testing and Materials:

1. ASTM C33 - Standard Specification for Concrete Aggregates.
2. ASTM C40 - Test Method for Organic Impurities in Fine Aggregates for Concrete.
3. ASTM C150 - Standard Specification for Portland Cement.
4. ASTM C191 - Test Method for Time of Setting of Hydraulic Cement by Vicat Needle.
5. ASTM C307 - Test Method for Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacings.
6. ASTM C531 - Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes.
7. ASTM C579 - Test Method for Compressive Strength of Chemical-Resistant Mortars, Grouts, monolithic Surfacings and Polymer Concretes.
8. ASTM C827 - Test Method for Change in Height at Early Ages of Cylindrical Specimens from Cementitious Mixtures.

C. U. S. Army Corps of Engineers Concrete Research Division (CRD):

1. CRD C621 - Non-Shrink Grout.

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1.4 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Product Data: Submit product data on grout.

C. Manufacturer's Installation Instructions: Submit manufacturer’s instructions for mixing, handling, surface preparation and placing epoxy type and non-shrink type grouts.

D. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with state and local standard specifications

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver grout in manufacturer's unopened containers with proper labels intact.

B. Store grout in a dry shelter, protect from moisture.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Do not perform grouting if temperatures exceed 95 degrees F.

B. Maintain minimum temperature of 40 degrees F before, during, and after grouting, until grout has set.

PART 2 - PRODUCTS

2.1 PORTLAND CEMENT GROUT MATERIALS

A. Portland Cement: ASTM C150, Type I and II.

B. Water:

1. Potable; containing no impurities, suspended particles, algae or dissolved natural salts in quantities capable of causing:

a. Corrosion of steel.
b. Volume change increasing shrinkage cracking.
c. Efflorescence.
d. Excess air entraining.

C. Fine Aggregate:

1. Washed natural sand.

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2. Gradation in accordance with ASTM C33 and represented by smooth granulometric curve within required limits.
3. Free from injurious amounts of organic impurities as determined by ASTM C40.

D. Mix:

1. Portland cement, sand and water. Do not use ferrous aggregate or staining ingredients in grout mixes.

2.2 RAPID CURING EPOXY GROUT

A. Furnish materials in accordance with state and local standard specifications.

B. Rapid Curing Epoxy Grout: High strength, three component epoxy grout formulated with thermosetting resins and inert fillers. Rapid-curing, high adhesion, and resistant to ordinary chemicals, acids and alkalies.

Property	Test	Result
Compressive Strength	ASTM C579	12,000 psi at 7 days
Tensile Strength	ASTM C307	2,000 psi minimum
Coefficient of Expansion	ASTM C531	30x10-6 in per degree F
Shrinkage	ASTM C827	None

2.3 NON-SHRINK CEMENTITIOUS GROUT

A. Furnish materials in accordance with state and local standard specifications.

B. Non-shrink Cementitious Grout: Pre-mixed ready for use formulation requiring only addition of water; non-shrink, non-corrosive, non-metallic, non-gas forming, no chlorides.

C. Properties: Certified to maintain initial placement volume or expand after set and meet the following minimum properties when tested in accordance with CRD-C621, for Type D non-shrink grout:

Property	Test	Time	Result
Setting Time	ASTM C191	Initial	2 hours (Approx)
		Final	3 hours (Approx)
Expansion			0.10% - 0.4% Maximum
Compressive Strength	CRD-C621	1 day	4,000 psi
		7 days	7,000 psi
		28 days	10,000 psi to 10,800 psi

2.4 FORMWORK

A. Refer to Section 03 10 00 for formwork requirements.

2.5 CURING

A. Prevent rapid loss of water from grout during first 48 hours by use of approved membrane curing compound or with use of wet burlap method.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify areas to receive grout.

3.2 PREPARATION

A. Remove defective concrete, laitance, dirt, oil, grease and other foreign material from concrete surfaces by brushing, hammering, chipping or other similar means until sound, clean concrete surface is achieved.

B. Rough concrete lightly, but not enough to interfere with placement of grout.

C. Remove foreign materials from metal surfaces in contact with grout.

D. Align, level and maintain final positioning of components to be grouted.

E. Saturate concrete surfaces with clean water; remove excess water, leave none standing.

3.3 INSTALLATION - FORMWORK

A. Construct leakproof forms anchored and shored to withstand grout pressures.

B. Install formwork with clearances to permit proper placement of grout.

3.4 MIXING

A. Mix and prepare rapid curing epoxy grout in accordance with manufacturer's instructions.

1. Capable of developing minimum compressive strength of 2400 psi in 48 hours and 7000 psi in 28 days.

3.5 PLACING GROUT

A. Place grout material quickly and continuously.

B. Do not use pneumatic-pressure or dry-packing methods.

C. Apply grout from one side only to avoid entrapping air.

D. Do not vibrate placed grout mixture, or permit placement when area is being vibrated by nearby equipment.

E. Thoroughly compact final installation and eliminate air pockets.

F. Do not remove leveling shims for at least 48 hours after grout has been placed.

3.6 CURING

A. Immediately after placement, protect grout from premature drying, excessively hot or cold temperatures, and mechanical injury.

B. After grout has attained its initial set, keep damp for minimum of 3 days.

3.7 FIELD QUALITY CONTROL

A. Field inspection and testing will be performed in accordance with ACI 301 and ACI 318.

B. Submit proposed mix design of each class of grout to inspection and testing firm for review prior to commencement of Work.

C. Tests of grout components may be performed to ensure conformance with specified requirements.

END OF SECTION

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SECTION 31 05 13 - SOILS FOR EARTHWORK

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. General Fill.
2. Select Fill.
3. Topsoil

1.2 UNIT PRICES - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCES

A. American Association of State Highway and Transportation Officials:

1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

B. ASTM International:

1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)).
2. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3)).
3. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

1.4 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Samples: Select fill samples shall be taken, stored, and transported per the testing laboratory requirements.

C. Materials Source: Submit name of imported materials source.

D. Manufacturer's Certificate: Certify materials meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

A. Furnish each offsite material from single source throughout the Work.

PART 2 - PRODUCTS

2.1 GENERAL FILL

A. On-site or imported materials free from lumps or clods ≥ 6" diameter. P.I.<20 LL<45

2.2 SELECT FILL

A. Imported fill material free from lumps or clods > 2" diameter P.I.<10 LL<40

B. Free of rocks, frozen material, debris, and organics.

2.3 TOPSOIL MATERIALS

A. Topsoil

1. Imported borrow.
2. Friable loam.
3. Reasonably free of roots, rocks larger than 1/2 inch, subsoil, debris, large weeds, and foreign matter.

    a. Screening: Single screened.

4. Acidity range (pH) of 5.5 to 7.5.
5. Containing minimum of 4 percent and maximum of 25 percent inorganic matter.

2.4 SOURCE QUALITY CONTROL

A. Testing and Analysis of Subsoil Material: Perform in accordance with ASTM D698.

B. Testing and Analysis of Topsoil Material: Perform in accordance with ASTM D698.

C. When tests indicate materials do not meet specified requirements, change material and retest.

D. Furnish materials of each type from same source throughout the Work.

PART 3 - EXECUTION

3.1 EXCAVATION

A. Excavate general fill, select fill, and topsoil from areas designated. Strip topsoil to full depth of topsoil in designated areas.

B. Stockpile excavated material meeting requirements for general fill, select fill, and topsoil].

C. Remove excess excavated materials not intended for reuse, from site.

D. Remove excavated materials not meeting requirements for general fill, select fill, & topsoil.

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3.2 STOCKPILING

A. Stockpile materials on site at approved locations designated by Engineer.

B. Stockpile in sufficient quantities to meet Project schedule and requirements.

C. Separate differing materials with dividers or stockpile apart to prevent mixing.

D. Stockpile topsoil 8 feet high maximum.

E. Prevent intermixing of soil types or contamination.

F. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.

G. Stockpile potentially hazardous materials on impervious material and cover to prevent erosion and leaching, until disposed of.

3.3 STOCKPILE CLEANUP

A. Remove stockpile, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.

B. When borrow area is indicated, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.

END OF SECTION

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SECTION 31 10 00 - SITE CLEARING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Removing surface debris.
2. Removing designated paving, curbs, pads, and misc. concrete.
3. Removing designated trees, shrubs, and other plant life.
4. Removing abandoned utilities.
5. Excavating topsoil.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 QUALITY ASSURANCE

A. Conform to city code for, disposal of debris. No burning or herbicides allowed

B. Perform Work in accordance with state and local standard specifications.

PART 2 - PRODUCTS

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify existing plant life designated to remain is tagged or identified.

B. Identify waste area for placing removed materials.

3.2 PREPARATION

A. Call Local Utility Line Information service at 811 or 1-800-545-6005 not less than three working days before performing Work.

1. Request underground utilities to be located and marked within and surrounding construction areas. All existing utilities shall have their locations and depths field verified prior to soil disturbing activities.

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3.3 PROTECTION

A. Locate, identify, and protect utilities indicated to remain, from damage.

B. Protect trees, plant growth, and features designated to remain, as final landscaping.

C. Protect bench marks, survey control points, and existing structures from damage or displacement.

3.4 CLEARING

A. Clear areas required for access to site and execution of Work to minimum depth of 6” inches.

B. Remove trees and shrubs within marked areas. Remove stumps, main root ball, root system to depth of 24 inches, surface rock.

C. Clear undergrowth and deadwood, without disturbing subsoil.

3.5 REMOVAL & DEMO

A. The removal and disposal of all items shall be the responsibility of the contractor. All items designated by owner to be salvaged shall be delivered and off loaded to the owner including valves and fittings.

B. Remove debris, rock, and extracted plant life from site.

C. Remove paving, curbs, pads, and all misc. concrete items designated for demo. Potentially hazardous materials such as septic tanks must be removed to a min 18” below grade depth and backfilled with non-organic, granular material, per TCEQ Requirements Chapter 285, Subchapter D.

D. Remove abandoned utilities. Indicated removal termination point for underground utilities on Record Documents.

E. Existing manholes and utility lines to be abandoned shall be plugged with class B concrete and abandoned in place unless otherwise instructed on plans. Manholes shall be filled with sand or gravel.

F. Continuously clean-up and remove waste materials from site. Do not allow materials to accumulate on site.

G. Do not burn or bury materials on site. Leave site in clean condition.

H. Holes or voids left from the demolition of structures, trees, rocks, etc. shall be filled and compacted to meet the existing surrounding grades. This work will be considered subsidiary to the unit prices in the bid form.

3.6 TOPSOIL EXCAVATION

A. Excavate topsoil from areas to be further excavated, relandscaped, or regraded, without mixing with foreign materials for use in finish grading.

B. Do not excavate wet topsoil.

C. Stockpile in area designated on site to depth not exceeding 8 feet and protect from erosion. Stockpile material on impervious material and cover over with same material, until disposal.

D. Remove excess topsoil not intended for reuse, from site.

END OF SECTION

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SECTION 31 22 13 - ROUGH GRADING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Excavating topsoil.
2. Excavating subsoil.
3. Cutting, grading, filling, rough contouring, and compacting.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCES

A. American Association of State Highway and Transportation Officials:

1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

B. ASTM International:

1. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)).
3. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
4. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3)).
5. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
6. ASTM D2419 - Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
7. ASTM D2434 - Standard Test Method for Permeability of Granular Soils (Constant Head).
8. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
9. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

1.4 SUBMITTALS

A. Samples: Submit, in air-tight containers, 10 lb sample of each type of select fill to testing laboratory, when required.

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B. Materials Source: Submit name of imported materials suppliers.

C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.5 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for submittals.

B. Project Record Documents: Accurately record actual locations of utilities remaining by horizontal dimensions, elevations or inverts, and slope gradients.

1.6 QUALITY ASSURANCE

A. Perform Work in accordance with ASTM C136, ASTM D2419, and ASTM D2434.

B. Perform Work in accordance with state and local standard specifications.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Topsoil: As specified in Section 31 05 13.

B. General Fill: As specified in Section 31 05 13.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify survey bench mark and intended elevations for the Work are as indicated on Drawings.

3.2 PREPARATION

A. Call Local Utility Line Information service than three working days before performing Work.

1. Request underground utilities to be located and marked within and surrounding construction areas.

B. Identify required lines, levels, contours, and datum.

C. Notify utility company to remove and relocate utilities where applicable.

D. Protect utilities indicated to remain from damage.

E. Protect plant life, lawns, rock outcropping and other features remaining as portion of final landscaping.

F. Protect bench marks, survey control point, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic. Any damaged incurred shall be at the expense of the contractor.

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3.3 TOPSOIL EXCAVATION

A. Excavate topsoil from areas to be further excavated, relandscaped, or regraded, without mixing with foreign materials for use in finish grading.

B. Do not excavate wet topsoil.

C. Stockpile in area designated on site to depth not exceeding 8 feet and protect from erosion. Stockpile material on impervious material and cover over with same material, until disposal.

D. Remove excess topsoil not intended for reuse, from site.

3.4 SUBSOIL EXCAVATION

A. Excavate subsoil from areas to be further excavated, relandscaped, or regraded.

B. Excavate and process wet material to obtain optimum moisture content.

C. Remove excess subsoil not intended for reuse, from site.

D. Stockpile subsoil in area designated on site to depth not exceeding 8 feet and protect from erosion.

E. Benching Slopes: Horizontally bench existing slopes greater than 1:4 to key placed fill material to slope to provide firm bearing.

F. Stability: Replace damaged or displaced subsoil as specified for fill.

3.5 FILLING

A. Fill areas to contours and elevations with unfrozen materials.

B. Place material in continuous layers as follows:

1. General Fill: Maximum 8 inches compacted depth. Compact to 90% modified proctor.
2. Select Fill: Maximum 6 inches compacted depth. Compact to 95% modified proctor

C. Maintain optimum moisture content of fill materials to attain required compaction density. ±3% optimum.

D. Make grade changes gradual. Blend slope into level areas.

E. Repair or replace items indicated to remain damaged by excavation or filling.

3.6 TOLERANCES

A. Top Surface of Subgrade: Plus or minus 1/10 foot from required elevation.

3.7 FIELD QUALITY CONTROL

A. 01 70 00 - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.

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B. Perform laboratory material tests in accordance with ASTM D698.

C. Perform in place compaction tests in accordance with the following:

1. Density Tests: ASTM D2922.
2. Moisture Tests: ASTM D3017.

D. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.

E. Frequency of Tests: Minimum 1 test per lift, per 1,000 SF

END OF SECTION

SECTION 31 23 16 - EXCAVATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Excavating for slabs-on-grade.

B. Related Sections:
   1. Section 31 05 13 - Soils for Earthwork: Stockpiling excavated materials.
   2. Section 31 05 16 - Aggregates for Earthwork: Stockpiling excavated materials.
   3. Section 31 22 13 - Rough Grading: Topsoil and subsoil removal from site surface.
   4. Section 31 23 17 - Trenching: Excavating for utility trenches.
   5. Section 31 23 18 - Rock Removal: Removal of rock during excavating.
   6. Section 31 23 23 - Fill.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. Excavating Soil Materials:
   1. Basis of Measurement: See Bid Proposal
   2. Basis of Payment: Includes excavating to required elevations, loading and placing materials in stockpile and or removing from site. Over Excavating: Payment will not be made for over excavated work nor for replacement materials.

1.3 REFERENCES

A. Refer to local utility standards when working within 24 inches of utility lines.

1.4 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Excavation Protection Plan: Describe sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan.

C. Shop Drawings: Indicate soil densification grid for each size and configuration footing requiring soils densification.

D. Contractor shall deliver representative soil samples (1 per each excavation site, not to exceed 4 total) to independent testing lab for proctor testing at contractors expense and submit proctor report to project engineer for evaluation.

1.5 PREPARATION

A. Call 811 not less than three working days before performing Work.
   1. Request underground utilities to be located and marked within and surrounding construction areas.

B. Identify required lines, levels, contours, and datum.

C. Protect utilities indicated to remain from damage.

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D. Protect plant life and other features remaining as portion of final landscaping.

E. Protect bench marks, survey control points, existing structures, fences, paving, and curbs from excavating equipment and vehicular traffic.

1.6 SOIL DENSITY

A. Densify existing subsoils below slabs to attain relative density rating of 92% standard proctor density, plus or minus 2% of optimum moisture content.

B. Density Testing: Contractor shall provide random nuclear density testing by an independent laboratory at contractors expense at a rate of 1 test per 8 inch lift of fill material placed for each area of work. Testing results shall be provided to the owner and project engineer in a timely manner by the independent testing laboratory.

1.7 EXCAVATION

A. Slope banks to angle of repose.

B. Grade top perimeter of excavation to prevent surface water from draining into excavation.

C. Trim excavation. Remove loose matter.

D. Remove lumped subsoil, boulders, and rock up to 1/3 cu yd measured by volume. Remove larger material as specified in Section 31 23 23.

E. Notify Engineer of unexpected subsurface conditions before proceeding.

F. Over excavated areas shall be filled with structural fill as directed by the engineer at the contractor’s expense.

G. Stockpile subsoil in area designated on site to depth not exceeding 8 feet and protect from erosion.

H. Any items damage by excavation which are indicated to remain shall be immediately reported to the owner and repaired or replaced at the contractors expense.

1.8 FIELD QUALITY CONTROL

A. Request Engineer for visual inspection of density testing and provide 24 hour notice for request of inspection of excavation prior to backfilling and before installing subsequent work.

1.9 PROTECTION

A. Prevent displacement or loose soil from falling into excavation; maintain soil stability.

B. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.

C. Protect structures, utilities and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth operations.

END OF SECTION

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SECTION 31 23 17 - TRENCHING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Excavating trenches for utilities
2. Backfilling and compaction.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCES

A. American Association of State Highway and Transportation Officials:

1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

B. ASTM International:

1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)).
2. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
3. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3)).
4. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
5. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
6. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

1.4 DEFINITIONS

A. Utility: Any buried pipe, duct, conduit, or cable.

1.5 SUBMITTALS

A. Excavation Protection Plan: Describe sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan.

B. Product Data: Submit data for geotextile fabric indicating fabric and construction.

C. Samples: Submit, in air-tight containers, 10 lb sample of each type of fill to testing laboratory.

D. Materials Source: Submit name of imported fill materials suppliers.

E. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.6 QUALITY ASSURANCE

A. Perform Work in accordance with state and city standard specifications

1.7 QUALIFICATIONS

A. When trenching 5' or deeper, prepare excavation protection plan under direct supervision of Professional Engineer experienced in design of this Work and licensed in State of Texas.

1.8 COORDINATION

A. Verify Work associated with lower elevation utilities is complete before placing higher elevation utilities.

PART 2 - PRODUCTS

2.1 FILL MATERIALS

A. Unless a more rigorous detail specifically designated otherwise on plans, in no case is a lesser standard approved.

B. Bedding

1. Sanitary and storm sewer lines - Class 1 embedment material, crushed stone, ¾" maximum size, fines included.
2. Waterlines and forcemains – Clean washed sand

C. Haunching

1. Sanitary and storm sewer lines - Class 1 material, crushed stone, ¾" maximum size, fines included.
2. Waterlines and forcemains – Clean washed sand

D. Initial Backfill

1. General site fill – On-site or imported materials free from lumps or clods ≥ 6" diameter P.I. <20 and LL<45

E. Final Backfill

1. General site fill – On-site or imported materials free from lumps or clods ≥ 6" diameter P.I. <20 and LL<45

PART 3 - EXECUTION

3.1 LINES AND GRADES

A. Lay pipes to lines and grades indicated on Drawings.

1. Engineer and Owner reserves right to make changes in lines, grades, and depths of utilities when changes are required for Project conditions.

B. Use laser-beam instrument with qualified operator to establish lines and grades.

3.2 PREPARATION

A. Call Local Utility Line Information service at Texas one call not less than three working days before performing Work. Contractor shall also be responsible for notifying owner and engineer.

1. Request underground utilities to be located and marked within and surrounding construction areas.

B. Identify required lines, levels, contours, and datum locations.

C. Protect plant life, lawns, rock outcropping and other features remaining as portion of final landscaping.

D. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

E. Maintain and protect above and below grade utilities indicated to remain.

F. Relocate controls and reroute traffic as required during progress of Work. Conduct work in conformance with traffic control plan approved by owner and engineer.

3.3 TRENCHING

A. Excavate subsoil required for utilities.

B. Do not advance open trench more than 100 feet ahead of installed pipe.

C. Cut trenches sufficiently wide to enable installation and allow inspection. Remove water or materials that interfere with Work.

D. Excavate bottom of trenches maximum 2 feet wider than outside diameter of pipe.

E. Excavate trenches to depth indicated on Drawings. Provide uniform and continuous bearing and support for bedding material and pipe.

F. Do not interfere with 45 degree bearing splay of foundations.

G. When Project conditions permit, slope side walls of excavation starting 2 feet above top of pipe. When side walls can not be sloped, provide sheeting and shoring to protect excavation as specified in excavation safety plan.

H. When subsurface materials at bottom of trench are loose or soft, excavate to greater depth as directed by Engineer until suitable material is encountered.

I. Cut out soft areas of subgrade not capable of compaction in place. Backfill with bedding material and compact to density equal to or greater than requirements for subsequent backfill material.

J. Trim excavation. Hand trim for bell and spigot pipe joints. Remove loose matter.

K. Correct areas over excavated areas with compacted bedding material as specified for authorized excavation or replace with fill concrete as directed by Engineer.

L. Remove excess subsoil not intended for reuse, from site.

M. Stockpile subsoil in area designated on site to depth not exceeding 8 feet and protect from erosion.

3.4 SHEETING AND SHORING

A. Sheet, shore, and brace excavations to prevent danger to persons, structures and adjacent properties and to prevent caving, erosion, and loss of surrounding subsoil.

B. Support trenches more than 5 feet deep excavated through unstable, loose, or soft material. Provide sheeting, shoring, bracing, or other protection to maintain stability of excavation.

C. Design sheeting and shoring to be removed at completion of excavation work.

D. Repair damage caused by failure of the sheeting, shoring, or bracing and for settlement of filled excavations or adjacent soil.

E. Repair damage to new and existing Work from settlement, water or earth pressure or other causes resulting from inadequate sheeting, shoring, or bracing.

3.5 BACKFILLING

A. Backfill trenches to contours and elevations with unfrozen fill materials.

B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.

C. Place fill material in continuous layers and compact to 90% modified proctor in general areas and 95% modified proctor under paving and future structures.

D. Place material in continuous layers of maximum 6” thickness

E. Employ placement method that does not disturb or damage foundation perimeter drainage, utilities in trench, and trenchwall stability.

F. Maintain ±3% optimum moisture content of fill materials to attain required compaction density.

G. Do not leave more than 50 feet of trench open at end of working day.

H. Protect open trench to prevent danger to the public.

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3.6 TOLERANCES

A. Top Surface of Backfilling Under Paved Areas: Plus or minus 1”

B. Top Surface of General Backfilling: Plus or minus 1”from required elevations.

3.7 FIELD QUALITY CONTROL

A. Perform laboratory material tests in accordance with ASTM D1557. ASTM D698.

B. Perform in place compaction tests in accordance with the following:

1. Density Tests: or ASTM D2922.
2. Moisture Tests: ASTM D3017.

C. When tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest.

D. Frequency of Tests: minimum one per lift per 1,000’ of trench

3.8 PROTECTION OF FINISHED WORK

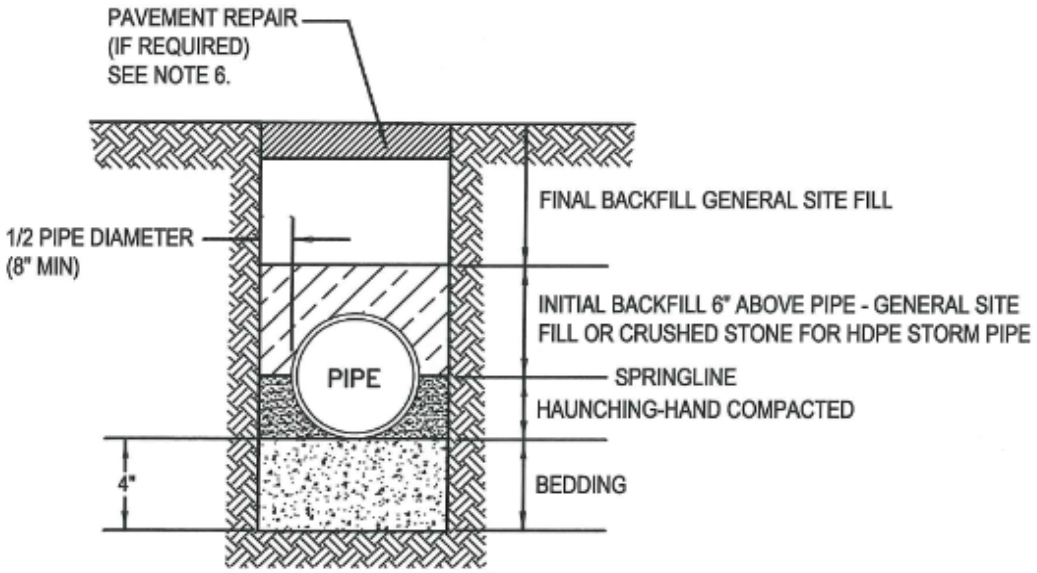
A. Section 01 70 00 - Execution and Closeout Requirements: Protecting finished work.

B. Reshape and re-compact fills subjected to vehicular traffic during construction.

3.9 PAVEMENT REPAIR

A. Minimum pavement repair requirements are found in the detail provided below in section 3.10. However, these pavement repair requirements shall be superseded by a pavement repair specification when provided.

3.10 MINIMUM REQUIREMENT DETAIL



NOTES:

1. THE FOLLOWING MATERIALS SHALL BE USED:
   a. BEDDING: CLASS I EMBEDMENT MATERIAL (CRUSHED STONE) FOR SANITARY SEWER AND STORM DRAINAGE LINES. CLEAN SAND FOR WATERLINES.
   b. HAUNCHING: CLASS I EMBEDMENT MATERIAL (CRUSHED STONE) FOR SANITARY SEWER AND STORM DRAINAGE LINES. CLEAN SAND FOR WATERLINES.
   c. INITIAL BACKFILL: SELECT SITE MATERIALS, FREE FROM LUMPS OR CLODS >6" DIA. PI<20, LL<45, HDPE STORM SEWER REQUIRES CLASS 1 EMBEDMENT (CRUSHED STONE)
   d. FINAL BACKFILL: SELECT SITE MATERIALS, FREE FROM LUMPS OR CLODS >6" DIA. PI<20, LL<45
2. WHENEVER RUNNING WATER IS ENCOUNTERED IN TRENCH, CONTRACTOR SHALL USE CLASS I EMBEDMENT MATERIAL (CRUSHED STONE) FOR THE BEDDING & HAUNCHING.
3. WHEN AN UNSTABLE TRENCH BOTTOM IS ENCOUNTERED, CONTRACTOR SHALL OVER EXCAVATE TRENCH AND PLACE 6" OF CLASS I MATERIAL FOR FOUNDATION.
4. WHEN CLAYEY SOILS ARE ENCOUNTERED IN BOTTOM OF TRENCH CONTRACTOR SHALL USE CLASS III EMBEDMENT MATERIAL (SAND) FOR BEDDING, HAUNCHING AND INITIAL BACKFILL.
5. ALL BACKFILL SHALL BE PLACED IN 8" MAX. LIFTS AND BE COMPACTED TO 90% MODIFIED PROCTOR. BACKFILL UNDERNEATH ASPHALT, CONCRETE, DRIVES, OR FUTURE STRUCTURES SHALL BE COMPACTED TO 95% MODIFIED PROCTOR.
6. PAVEMENT REPAIRS SHALL MATCH EXISTING PAVEMENT PROFILES, HOWEVER, THE FOLLOWING MINIMUM CRITERIA SHALL APPLY.
   a. SUBGRADE SHALL BE COMPACTED TO 95% MOD. PROCTOR.
   b. MINIMUM 6" GRAVEL BASE COMPACTED TO 95% MOD. PROCTOR
   c. 2" MIN. HMAC SURFACE OR 4" MIN. REINFORCED CONCRETE SURFACE
   d. PRIME AND/OR TACK COATS WILL BE REQUIRED AS APPLICABLE
   e. FOR INSTALLATION REQUIREMENTS, SEE TXDOT STANDARDS AS REFERENCED IN THE TECHNICAL SPECIFICATIONS.

PIPE EMBEDMENT DETAIL
SCALE: N.T.S.

END OF SECTION

SECTION 31 25 00 - EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Erosion Control Requirements

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 SWPPP REQUIREMENTS

A. When applicable with TCEQ requirements, contractor shall create a complete stormwater pollution prevention plan (SWPPP), Notice of Intent (NOI), and notice of termination (NOT), and pay all fees associated with these permits. These requirements shall be met prior to performing any soil disturbing activities.

B. The contractor shall be responsible for installation, maintenance, and inspection of all temp. and permanent erosion control measures in accordance with the SWP3, TCEQ requirements, and ISWM design manual for construction.

C. Temporary or permanent erosion control measures shall be used to prevent silt from leaving the project site during construction. Temporary erosion controls may include silt fences, straw wattles, berms, dikes, swales, strips or undisturbed vegetation, rock filter check dams, and other methods as required by the engineer or his representative and as specified in the plans and contract documents.

D. All finished grade slopes steeper then 6:1 and flow lines of all drainage ditches and swales, shall be completely covered with soil retention blanket (SRB) to promote re-vegetation and to prohibit erosion. SRB shall be per TxDOT item 169, Class 1, Type B. Other areas shall be covered with hay or straw mulch immediately after permanent seeding. SRBs, mulch, hay, fertilizers, and water used to promote re-vegetation is subsidiary to the unit prices included within the bid form.

E. All disturbed permeable surfaces must be graded to a smooth and uniform appearance that can be easily mowed with a small push mower. Permanent vegetation must be established according to seeding specifications. Residential lawns shall be re-established with block sod to match existing type of lawn grass.

1.4 SUBMITTALS

A. Product Data: Submit minimum one copy of the fully executed SWPPP

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with any State and local standards.

B. Maintain at least one copy of the SWPPP document on site.

PART 2 - PRODUCTS

A. This Section is Intentionally Left Blank.

PART 3 - EXECUTION

3.1 FIELD QUALITY CONTROL

A. Inspect erosion control devices on an as needed basis and after each runoff event. Make necessary repairs to ensure erosion and sediment controls are in good working order.

3.2 CLEANING

A. When sediment accumulation in sedimentation structures has reached a point one-third depth of sediment structure or device, remove and dispose of sediment.

B. Do not damage structure or device during cleaning operations.

C. Do not permit sediment to erode into construction or site areas or natural waterways.

D. Clean channels when depth of sediment reaches approximately one half channel depth.

END OF SECTION

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SECTION 32 92 19 – SEEDING & SODDING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Fertilizing.
2. Seeding.
3. Hydroseeding.
4. Mulching.
5. Fertilizing
6. Preparation of subsoil
7. Placing topsoil
8. Sod Installation
9. Maintenance.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCES

A. ASTM International:

1. ASTM C602 - Standard Specification for Agricultural Liming Materials.

1.4 DEFINITIONS

A. Weeds: Vegetative species other than specified species to be established in given area.

1.5 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Product Data: Submit data for seed mix, fertilizer, mulch, and other accessories.

C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.6 QUALITY ASSURANCE

A. Unless otherwise directed in the contract drawings, all disturbed areas shall be re-graded to pre-construction contours and permanent vegetation established.

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B. Seed: Provide seed mixture in containers showing percentage of seed mix, germination percentage, inert matter percentage, weed percentage, year of production, net weight, date of packaging, and location of packaging.

C. Sod: Root development capable of supporting its own weight without tearing, when suspended vertically by holding upper two corners.

D. Perform Work in accordance with state and local standard specifications.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable.

B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

1.8 MAINTENANCE SERVICE

A. Maintain seeded and sodded areas immediately after placement until grass is well established and exhibits vigorous growing condition for two cuttings.

PART 2 - PRODUCTS

2.1 SEED MIXTURE

A. Materials in accordance with state and local standard specifications

B. Seed Mixture:

1. Gross Weight x Purity x Germination = Pure Live Seed
2. March-September = Bermuda Grass (Hulled) 50 lb/acre
3. October-February = Rye Grass combined with Bermuda grass (unhulled) 20 lb/acre

2.2 SOD

A. Furnish materials in accordance with and local state or city standard specifications.

B. Sod: Approved grade; cultivated grass sod; type indicated in schedule at end of section; with strong fibrous root system, free of stones, burned or bare spots; containing no more than 10 weeds per 1000 sq ft. Match existing type of lawn grass.

2.3 ACCESSORIES

A. Mulching Material: Use straw mulch consisting of oat, wheat, or rice straw or hay mulch of either Bermudagrass or prairie grasses. Use straw or hay mulch free of Johnson grass and other noxious and foreign materials. Keep the mulch dry and do not use molded or rotted material.

B. Tacking Methods: Use a tacking agent in accordance with the manufacturer's recommendations or crimping method on all straw or haw mulch operations. Use tacking agents as approved or as specified on the plans.

C. Mulching Material for Hydroseeding: Use only cellulose fiber mulches that are on TxDOT's approved product list and erosion control approved product list. Keep mulch dry until applied. Do not use molded or rotted material.

D. Fertilizer (when applicable): Commercial grade; recommended for grass; of proportion necessary to eliminate deficiencies of topsoil to the following proportions: Nitrogen 25 percent, phosphoric acid 50 percent, soluble potash 25 percent. Application rate shall be 10 lbs per 1,000 SF

E. Water: Clean, fresh and free of substances or matter capable of inhibiting vigorous growth of grass.

F. Erosion Fabric: Jute matting, open weave.

G. Herbicide: none.

H. Stakes: Softwood lumber, chisel pointed.

I. String: Inorganic fiber.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify prepared soil base is ready to receive the Work of this section.

3.2 FERTILIZING

A. Apply fertilizer at application rate of 10 lbs per 1,000 SF.

B. Apply after smooth raking of topsoil.

C. Do not apply fertilizer at same time or with same machine used to apply seed.

D. Mix fertilizer thoroughly into upper 2 inches of topsoil.

E. Lightly water soil to aid dissipation of fertilizer. Irrigate top level of soil uniformly.

3.3 PREPARATION OF SUBSOIL

A. Prepare sub-soil and eliminate uneven areas and low spots.

B. Maintain lines, levels, profiles and contours. Make changes in grade gradual. Blend slopes into level areas. Must be able to be mowed with a small push lawn mower.

C. Remove foreign materials and undesirable plants and their roots. Do not bury foreign material beneath areas to be seeded or sodded.

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D. Remove contaminated subsoil.

E. Scarify sub-soil to depth of 4 inches where topsoil is to be placed.

F. Repeat cultivation in areas where equipment, used for hauling and spreading topsoil, has compacted subsoil.

3.4 PLACING & TILLING OF TOPSOIL

A. Spread or till topsoil to minimum depth of 3 inches over area to be sodded.

B. When applicable, place topsoil during dry weather and on dry unfrozen subgrade.

C. Remove vegetable matter and foreign non-organic material from topsoil while spreading/tilling.

D. Grade topsoil to eliminate rough, low or soft areas and to ensure positive drainage.

3.5 SEEDING

A. Apply seed at required rate evenly in two intersecting directions. Rake in lightly.

B. Do not seed areas in excess of that which can be mulched on same day.

C. Do not sow immediately following rain, when ground is too dry, or when winds are over 12 mph.

D. Immediately following seeding and compacting, apply mulch to thickness of 1/8 inches. Maintain clear of shrubs and trees.

E. Apply water with fine spray immediately after each area has been mulched. Saturate to 4 inches of soil.

3.6 HYDROSEEDING

A. Apply fertilizer, mulch and seeded slurry with hydraulic seeder at specified rate evenly in one pass.

B. After application, apply water with fine spray immediately after each area has been hydroseeded. Saturate to 4 inches of soil and maintain moisture levels two to four inches.

C. Tacking agent shall be Guar Gum, polyacrylamide, or other approved by owner.

3.7 SEED PROTECTION

A. Cover seeded slopes where grade is 4 inches per foot or greater with erosion fabric. Roll fabric onto slopes without stretching or pulling.

B. Lay fabric smoothly on surface, bury top end of each section in 6 inch deep excavated topsoil trench. Overlap edges and ends of adjacent rolls minimum 12 inches. Backfill trench and rake smooth, level with adjacent soil.

C. Secure outside edges and overlaps at 36 inch intervals with stakes.

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D. Lightly dress slopes with topsoil to ensure close contact between fabric and soil.

E. At sides of ditches, lay fabric laps in direction of water flow. Lap ends and edges minimum 6 inches.

3.8 LAYING SOD

A. Moisten prepared surface immediately prior to laying sod.

B. Lay sod within 24 hours of delivery to site to prevent deterioration.

C. Lay sod tight with no open joints visible, and no overlapping; stagger end joints 12 inches minimum. Do not stretch or overlap sod pieces.

D. Lay smooth and align with adjoining grass areas.

E. Place top elevation of sod 1/2 inch below adjoining edging, paving, curbs, and structures.

F. On slopes 6 inches per foot and steeper, lay sod perpendicular to slope and secure every row with wooden pegs at maximum 2 feet on center. When using “big roll”, lay sod parallel to slope. Drive pegs flush with soil portion of sod.

G. Do not place sod when temperature is lower than 32 degrees F.

H. Prior to placing sod, on slopes exceeding 8 inches per foot or where indicated, place wire mesh over topsoil. Securely anchor wire mesh in place with wood pegs sunk firmly into ground.

I. Water sodded areas immediately after installation. Saturate sod to 4 inches of soil.

J. When required, roll before first watering.

3.9 MAINTENANCE

A. Mow grass at regular intervals to maintain at maximum height of 2-1/2 inches. Do not cut more than 1/3 of grass blade at each mowing. Perform first mowing when seedlings are 40 percent higher than desired height.

B. Do not let clippings lay in clumps.

C. Water to prevent grass and soil from drying out.

D. Immediately reseed areas showing bare spots.

E. Repair washouts or gullies.

F. Any seeded areas with less than 25% established growth after 12 weeks shall be sodded per this specification.

3.10 SCHEDULE

A. Seed or sod all disturbed areas.

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B. Sod shall be installed in all locations specifically designated on plans.

C. Sod in privately-owned areas shall match existing turf grass in each location.

D. Sod type in public R-O-W and general areas shall be Bermuda grass sod unless otherwise noted on plans.

END OF SECTION

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SECTION 33 01 30.13 – PIPE AND MANHOLE TESTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Testing of Gravity Sewer Piping:
2. Testing of pressure piping for waterline or force main.
3. Deflection testing of plastic sewer piping.
4. Testing of Manholes:

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCE STANDARDS

A. ASTM International:

1. ASTM C1244 - Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test Prior to Backfill.

2. ASTM D2122 - Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings.

B. American Water Works Association:

1. AWWA C600 - Installation of Ductile Iron Mains and Their Appurtenances.

1.4 SUBMITTALS

A. Submit following items prior to start of testing:

1. Testing procedures.
2. List of test equipment.
3. Testing sequence schedule.
4. Provisions for disposal of flushing and test water.
5. Certification of test gage calibration.
6. Deflection mandrel drawings and calculations.

B. Test and Evaluation Reports: Indicate results of manhole and piping tests.

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PART 2 - PRODUCTS

2.1 VACUUM TESTING

A. Equipment:

1. Vacuum pump.
2. Vacuum line.
3. Vacuum Tester Base:
   a. Compression band seal.
   b. Outlet port.
4. Shutoff valve.
5. Stopwatch.
6. Plugs.
7. Vacuum Gage: Calibrated to 0.1 in. Hg.

2.2 AIR TESTING

A. Equipment:

1. Air compressor.
2. Air supply line.
3. Shutoff valves.
4. Pressure regulator.
5. Pressure relief valve.
6. Stopwatch.
7. Plugs.
8. Pressure Gage: Calibrated to 0.1 psi.

2.3 HYDROSTATIC TESTING

A. Equipment:

1. Hydro pump.
2. Pressure hose.
3. Water meter.
4. Test connections.
5. Pressure relief valve.
6. Pressure Gage: Calibrated to 0.1 psi.

2.4 DEFLECTION TESTING

A. Equipment:

1. TCEQ compliant rigid "Go, no go" mandrels.
   a. Must have an outside diameter equal to 95% of the inside diameter of the pipe.
   b. Constructed of rigid metal or plastic that can withstand 200 psi without deformation. Adjustable or flexible mandrels are prohibited.
   c. Must have 9 or more runners or legs of an odd number.
   d. The length of the mandrel's barrel section must be equal to at least 75% of the inside diameter of the pipe.
2. Pull/retrieval ropes.

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PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that manholes and piping are ready for testing.

B. Verify that trenches are backfilled.

C. Verify that pressure piping thrust restraint system is installed.

3.2 PREPARATION

A. Lamping:

1. Lamp gravity piping after flushing and cleaning.
2. Perform lamping operation by shining light at one end of each pipe section between manholes.
3. Observe light at other end.
4. Pipe not installed with uniform line and grade will be rejected.
5. Remove and reinstall rejected pipe sections.
6. Reclean and lamp until pipe section is installed to uniform line and grade.

B. Plugs:

1. Plug outlets, wye branches, and laterals.
2. Brace plugs to resist test pressures.

3.3 FIELD QUALITY CONTROL

A. Testing of Gravity Sewer Piping:

1. Low Pressure Air Testing:

a. Test each reach of gravity sewer piping between manholes.
b. Introduce air pressure slowly to approximately 4 psig.

1) Determine ground water elevation above spring line of piping.
2) For every foot of ground water above spring line of piping, increase starting air test pressure by 0.43 psi.
3) Do not increase pressure above 10 psig.

c. Allow pressure to stabilize for at least five minutes.
d. Adjust pressure to 3.5 psig or to increased test pressure as determined above when ground water is present.
e. Testing:

1) Determine test duration for reach of sewer with single pipe size from following table; do not make allowance for laterals.

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Pipe Diameter (inches)	Minimum Time (seconds)	Max Length for Min Time (feet)	Time for Longer Length (seconds/foot)
6	340	398	0.855
8	454	298	1.520
10	567	239	2.374
12	680	199	3.419
15	850	159	5.342
18	1020	133	7.693
21	1190	114	10.471
24	1360	100	13.676
27	1530	88	17.309
30	1700	80	21.369
33	1870	72	25.856

2) Record drop in pressure during testing period.
3) If air pressure drops more than 1.0 psi during testing period, piping has failed.
4) If 1.0 psi air pressure drop has not occurred during testing period, piping is acceptable; discontinue testing.
5) If piping fails, test reach of piping in incremental stages until leaks are isolated, repair leaks, and retest entire reach between manholes.

B. Testing of Pressure Piping (waterline and force main):

1. Test system according to AWWA C600 and following:

a. Hydrostatically test each portion of pressure piping, including valved section, at equal to or greater than the pipe's rated pressure (pressure class) unless otherwise specified by engineer.
b. Conduct hydrostatic testing for at least two hours.
c. Slowly fill with water portion of piping to be tested, expelling air from piping at high points.
d. Install corporation cocks at high points.
e. Close air vents and corporation cocks after air is expelled.
f. Raise pressure to specified test pressure.
g. Observe joints, fittings, and valves undergoing testing.
h. Remove and renew cracked pipes, joints, fittings, and valves that show visible leakage.
i. Retest.
j. Correct visible deficiencies and continue testing at same test pressure for additional two hours to determine leakage rate.
k. Maintain pressure within plus or minus 5.0 psi of test pressure.
l. Allowed leakage rate shall not exceed 10 gallons per inch of pipe diameter per mile of pipe per day. Leakage is defined as quantity of water supplied to piping necessary to maintain test pressure during period of testing. Compute maximum allowable leakage using following formula:

L = [**SD x sqrt(P)**]/C
L = testing allowance, gph
S = length of pipe tested, feet
D = nominal diameter of pipe, inches
P = average test pressure during hydrostatic testing, psig
C = 155,400

Note:
1. When pipe undergoing testing contains sections of various diameters, calculate allowable leakage from sum of computed leakage for each pipe size.

2. If testing of piping indicates leakage greater than that allowed, locate source of leakage, make corrections, and retest until leakage is within acceptable limits.
3. Correct visible leaks regardless of quantity of leakage.

C. Deflection Testing of Sanitary Sewer Piping:

1. Perform vertical ring deflection testing on PVC and acrylonitrile butadiene styrene sewer piping after backfilling has been in place for at least 30 days but not longer than 12 months.
2. Allowable maximum deflection for installed plastic sewer pipe is no greater than five percent of original vertical internal diameter.
3. Perform deflection testing using properly sized rigid ball or "go, no go" mandrel.
4. Furnish rigid ball or mandrel with diameter not less than 95 percent of base or average inside diameter of pipe, as determined by ASTM standard to which pipe is manufactured; measure pipe diameter in compliance with ASTM D2122.
5. Perform testing without mechanical pulling devices.
6. Locate, excavate, replace, and retest piping that exceeds allowable deflection.

D. Testing of Manholes:

1. Description:

   a. If air testing, test whenever possible prior to backfilling in order to more easily locate leaks.
   b. Repair both outside and inside of joint to ensure permanent seal.
   c. Test manholes with manhole frame set in place.

2. Vacuum test according to ASTM C1244 and following:

   a. All testing shall conform with TCEQ requirements.
   b. Plug pipe openings; securely brace plugs and pipe.
   c. Inflate compression band to create seal between vacuum base and structure.
   d. Connect vacuum pump to outlet port with valve open, then draw vacuum to 10 in. Hg.
   e. Close valve.
   f. Testing:

      1) Each manhole shall be tested for a minimum of 2 minutes.
      2) Record vacuum drop during test period.
      3) If vacuum drop is greater than 1 in. Hg during testing, repair & retest manhole.
      4) If vacuum drop of 1 in. Hg does not occur during test period, manhole is acceptable; discontinue testing.
      5) If vacuum test fails to meet 1 in. Hg drop in specified time after repair, repair and retest manhole.
      6) Manholes within 9’ of potable water lines must not have any leaks indicated by a drop in pressure of zero.

3. If unsatisfactory testing results are achieved, repair manhole and retest until result meets criteria.

4. Repair visible leaks regardless of quantity of leakage.

END OF SECTION

SECTION 33 01 30.16 - TV INSPECTION OF SANITARY & STORM SEWER PIPELINES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: TV Inspection for all Sanitary & Storm Sewer Piping. All gravity piping on this project require TV inspection.

1. Pipeline flushing and cleaning.
2. TV inspection of sewer pipelines.
3. Audio-video recording of pipeline interior.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 COORDINATION

A. Coordinate Work of this Section with Engineer & Owner.

1.4 PREINSTALLATION MEETINGS

A. Convene minimum one week prior to commencing Work of this Section.

1.5 SUBMITTALS

A. Submit completed narrated DVDs identified by Project name, street name, right-of-way property name, and manhole numbers.

B. DVDs become property of Owner.

C. Inspection Logs:

1. Submit cleaning and TV inspection logs for each section of sewer line to be rehabilitated and three copies of color DVDs for Work performed.
2. Include following minimum information:

a. Stationing and location of lateral services, wyes, or tees.
b. Clock time references.
c. Pipe joints.
d. Infiltration/inflow defects.
e. Cracks.
f. Leaks.
g. Offset joints.

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h. Other information required to assess condition of sewer.

D. Submit specific detailed description of proposed bypass pumping system, including written description of plan addressing quantity, capacity, and location of pumping equipment.

E. Submit spill plan to address any spills that might occur.

F. Qualifications Statement:
1. Submit qualifications for applicator.

1.6 QUALITY ASSURANCE

A. Perform Work according to state and local standard specifications.

1.7 QUALIFICATIONS

A. Applicator: Company specializing in performing Work of this Section with minimum 3 years documented experience.

PART 2 - PRODUCTS

2.1 DVDs

A. Description: Digital video formatted discs.

B. Audio track containing simultaneously recorded narrative commentary and evaluations of videographer, describing in detail condition of pipeline interior.

C. DVD may not be required if engineer is on site at time of TVing.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify location of sewer pipelines to be inspected.

3.2 PREPARATION

A. Flush and clean pipeline to remove sludge, dirt, sand, stone, grease, and other materials to ensure clear view of interior conditions.

B. Intercept flushed debris at next downstream manhole using weir or screening device; remove and dispose of debris off Site.

C. Furnish temporary bypass pumping system around Work area for time required to complete TV inspection.

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3.3 APPLICATION

A. Closed-Circuit TV Camera System:

1. Use cameras specifically designed and constructed for closed-circuit sewer line inspection. Use camera equipment with pan and tilt capability to view each lateral connection at multiple angles.
2. Use camera capable of moving both upstream and downstream with minimum 1,000 feet horizontal distance within one setup and direct-reading cable position meter.
3. A Push style camera may be used in engineer is on site during time of inspection.

END OF SECTION

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00SECTION 33 05 13.16 - PUBLIC MANHOLES AND STRUCTURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cast-in-place concrete manholes and structures with masonry transition to cover frame, covers, anchorage, and accessories.
2. Modular precast concrete manholes and structures with tongue-and-groove joints and masonry transition to cover frame, covers, anchorage, and accessories.
3. Masonry manhole and structure sections with masonry transition to cover frame, covers, anchorage, and accessories.
4. Doghouse manhole connections to existing sewer lines.
5. Bedding and cover materials.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCE STANDARDS

A. American Association of State Highway Transportation Officials:
1. AASHTO M288 - Standard Specification for Geotextile Specification for Highway Applications.
2. AASHTO M306 - Standard Specification for Drainage, Sewer, Utility, and Related Castings.

B. American Concrete Institute:

1. ACI 530/530.1 - Building Code Requirements and Specification for Masonry Structures.

C. ASTM International:

1. ASTM A48 - Standard Specification for Gray Iron Castings.
2. ASTM A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
3. ASTM C55 - Standard Specification for Concrete Building Brick.
4. ASTM C361 - Standard Specification for Reinforced Concrete Low-Head Pressure Pipe.
5. ASTM C478 - Standard Specification for Precast Reinforced Concrete Manhole Sections.
6. ASTM C497 - Standard Test Methods for Concrete Pipe, Manhole Sections, or Tile.
7. ASTM C913 - Standard Specification for Precast Concrete Water and Wastewater Structures.
8. ASTM C923 - Standard Specification for Resilient Connectors between Reinforced Concrete Manhole Structures, Pipes, and Laterals.

1.4 SUBMITTALS

A. Product Data: Submit data for manhole covers, component construction, features, configuration, and dimensions.

B. Shop Drawings:

1. Indicate structure locations and elevations.
2. Indicate sizes and elevations of piping, conduit, and penetrations.

C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

D. Manufacturer Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.

E. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

F. Qualifications Statements:

1. Submit qualifications for manufacturer and installer.
2. Submit manufacturer's approval of installer.

1.5 QUALITY ASSURANCE

A. Perform Work according to state and local standard specifications.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three years documented experience.

B. Installer: Company specializing in performing Work of this Section with minimum three years' documented experience and approved by manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Inspection: Accept materials on Site in manufacturer’s original packaging and inspect for damage.

B. Comply with precast concrete manufacturer's instructions and ASTM C913 for unloading, storing, and moving precast manholes and drainage structures.

C. Storage:

1. Store precast concrete manholes and drainage structures to prevent damage to Owner's property or other public or private property.
2. Repair property damaged from materials storage.

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PART 2 - PRODUCTS

2.1 MANHOLES AND STRUCTURES

A. Manhole and Structure Sections:

1. Description: Reinforced precast concrete conforming to ASTM C478 with gaskets conforming to ASTM C923.
2. Joints for Precast Manholes and Structures:

a. Conforming to ASTM C913.
b. Maximum Leakage: 0.025 gal. per hour per foot of joint at 3 feet of head.

B. Reinforcement:

1. Formed steel wire or reinforcing rods. Per ASTM A615 or A185
2. Finish: Unfinished.

C. Shaft Construction and Concentric or Eccentric Cone Top Section:

1. Pipe Sections: Reinforced precast concrete.
2. Joints:

a. Lipped male/female.

3. Sleeved to receive sections.

D. Shape: Unless otherwise indicated in drawings or bid proposal, manholes shall be cylindrical.

E. Clear Inside Dimensions:

1. Manhole diameters shall be as indicated in drawings and bid proposal. If not specified, a minimum manhole diameter of 48 inches shall be required.

F. Design Depth:

1. As indicated on Drawings.

G. Clear Opening:

1. Clear openings for each manhole shall be as indicated in drawings. If not specified, a minimum 30” Diameter clear opening will be required.

H. Pipe Entry: Furnish openings as indicated on Drawings. Contractor shall field verify penetration depths and locations prior to ordering/constructing manhole.

I. Structure Joint Gaskets:

1. ASTM C361.
2. Material: Rubber.

J. Steps: No steps unless specifically noted on plans.

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2.2 FRAMES AND COVERS

A. Manufacturers:

1. Furnish materials according to state and local standard specifications.

B. Description:

1. Construction: ASTM A48, Class 30B, cast iron.
2. Lid:
    a. Surface: Machined flat bearing.
    b. Removable with pick holes.
3. Cover Design: Closed Waterproof.
4. Live Load Rating: HS20 minimum load rating
5. Cover: Molded with identifying name and logo.
    a. Name of City
    b. Sanitary Sewer, Storm Sewer, or other utility identifier.

2.3 RISER RINGS

A. Manufacturers:

1. Furnish materials according to state and local standard specifications.

B. Riser Rings:

1. 4 Inches to 6 Inches Thick:
    a. Material: Precast concrete.
    b. Comply with ASTM C478.
2. Less than 4 Inches Thick:
    a. Material: Cast iron.
    b. Comply with AASHTO M306.
3. Rubber Seal Wraps:
    a. Wraps and Band Widths: Conform to ASTM C877, Type III.
    b. Cone/Riser Ring Joint: Minimum 3 inches overlap.
    c. Frame/Riser Ring Joint: 2 inches overlap.
    d. Additional Bands: Overlap upper band by 2 inches.

C. As specified in Section 03 41 00 - Precast Structural Concrete.

D. Accessories:

1. Joint Sealant: Comply with ASTM C990.
2. Bolts:
    a. Stainless Steel: Comply with ASTM F593.

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2.4 MATERIALS

A. Cover and Bedding:
   1. Bedding: Fill Type drainage stone to 12” over pipe.
   2. Cover: Fill Type compacted select fill.

2.5 ACCESSORIES

A. Foundation Slab: Only when indicated on drawings

   1. Provide cast-in-place concrete as specified in Section 03 30 00 OR Precast concrete slab.
   2. Top Surface: Level.

B. Bituminous Interior Manhole Coating:

   1. Manufacturers:

      a. Furnish materials according to state and local standard specifications.

   2. Description: 3 mil coating unless otherwise noted on drawings

C. Geotextile Filter Fabric:

   1. AASHTO M288, for subsurface drainage.
   2. Class A.
   3. Fabric:

      a. Non-biodegradable.
      b. Woven.

D. Grout: As specified in technical specifications, non-shrink grout.

E. Watertight Polyethylene Manhole Insert: When indicated on drawings

F. Soil backfill from above pipe to Finish Grade:

   1. Soil Type: compacted select fill.
   2. Subsoil: No rocks over 6 inches in diameter, frozen earth, or foreign matter.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that items provided by other Sections of Work are properly sized and located.

B. Verify that built-in items are in proper location and are ready for roughing into Work.

C. Verify correct size of manhole and structure excavation.

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3.2 PREPARATION

A. Mark each precast structure by indentation or waterproof paint showing date of manufacture, manufacturer, and identifying symbols and numbers as indicated on Drawings to indicate its intended use.

B. Coordinate placement of inlet and outlet pipe or duct sleeves required by other Sections.

C. Do not install manholes and structures where Site conditions induce loads exceeding structural capacity of manholes or structures.

D. Inspect precast concrete manholes and structures immediately prior to placement in excavation to verify that they are internally clean and free from damage; remove and replace damaged units.

3.3 INSTALLATION

A. Excavation and Backfill:

1. Excavate for manholes and structures in indicated locations and depths.
2. Provide clearance around sidewalls of manhole or structure for construction operations.
3. If groundwater is encountered, prevent accumulation of water in excavations; place manhole or structure in dry trench.
4. Where possibility exists of watertight manhole or structure becoming buoyant in flooded excavation, anchor manhole or structure to avoid flotation, as approved by Architect/Engineer.

B. Foundation Slab: Only when indicated on drawings.

C. Install manholes and structures supported at proper grade and alignment on crushed stone bedding over geotextile fabric.

D. Backfill excavations for manholes and structures with compacted select fill, clean sand will be used if excavation inhibits compactive effort.

E. Form and place manhole or structure cylinder plumb and level, to correct dimensions and elevations.

F. As Work progresses, build fabricated metal items.

G. Cut and fit for pipe conduit sleeves and vents.

H. Grout base of shaft sections to achieve slope to exit piping, trowel smooth, and contour to form continuous drainage channel as indicated on Drawings.

I. Paint interior with a coat of bituminous interior coating to achieve 3 mil min thickness.

J. Set cover frames and covers level to correct elevations without tipping.

K. Precast Concrete Manholes and Structures:

1. Lift precast components at lifting points designated by manufacturer.
2. When lowering manholes and structures into excavations and joining pipe to units, take precautions to ensure that interior of pipeline and structure remains clean.

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3. Set precast structures, bearing firmly and fully on crushed stone bedding, compacted as specified in technical specifications or on other support system as indicated on Drawings.
4. Assembly:

    a. Assemble multi-section manholes and structures by lowering each section into excavation.
    b. Install rubber gasket joints between precast sections according to manufacturer's recommendations.
    c. Lower, set level, and firmly position base section before placing additional sections.

5. Remove foreign materials from joint surfaces and verify sealing materials are placed properly.
6. Maintain alignment between sections by using guide devices affixed to lower section.
7. Joint sealing materials may be installed on Site or at manufacturer's plant.
8. Verify that installed manholes and structures meet required alignment and grade.
9. Remove knockouts or cut structure to receive piping without creating openings larger than required to receive pipe; fill annular spaces with mortar.
10. Cut pipe flush with interior of structure.
11. Shape inverts through manhole and structures as indicated on Drawings.

L. Cast-in-Place Concrete Manholes and Structures:

1. Prepare crushed stone bedding or other support system as indicated on Drawings to receive base slab as specified for precast structures.
2. Erect and brace forms against movement as specified in Section 03 10 00 - Concrete Forming and Accessories.
3. Install reinforcing steel as indicated on Drawings and as specified in Section 03 20 00 - Concrete Reinforcing.
4. Place and cure concrete as specified in Section 03 30 00 - Cast-in-Place Concrete.
5. Frames and Covers:

    a. Set frames using mortar and precast grade rings and cones.
    b. Set frame and cover 2 inches above finished grade for manholes and structures with covers located within unpaved areas, to allow area to be graded away from cover beginning 1 inch below top surface of frame.

M. Doghouse Manholes and Structures:

1. Stake out location and burial depth of existing sewer line in area of proposed manhole or structure.
2. Carefully excavate around existing sewer line to adequate depth for foundation slab installation.
3. Protect existing pipe from damage.
4. Cut out soft spots and replace with granular fill compacted to 95 percent maximum density.
5. Prepare crushed stone bedding or other support system, as indicated on Drawings, to receive foundation slab as specified for precast manholes and structures.
6. Install manhole or structure around existing pipe according to applicable Paragraphs in this Section.
7. Grout pipe entrances with waterproof non-shrink grout.
8. Block upstream flow at existing manhole or structure with expandable plug.
9. Use hydraulic saw to cut existing pipe at manhole or structure entrance and exit and along pipe length at a point halfway up the outside diameter on each side of the pipe.
10. Bottom half of pipe to remain as manhole flow channel.
11. Saw cut to smooth finish with top half of pipe flush with interior of manhole or structure.

12. Grout base of manhole or structure to achieve slope to manhole or structure channel and trowel smooth

N. Sanitary Manhole Drop Connections:

1. Construct drop connections into sanitary manholes as indicated on Drawings.

3.4 FIELD QUALITY CONTROL

A. Test cast-in-place concrete as specified in Section 03 30 00 - Cast-in-Place Concrete.

B. Test concrete manhole and structure sections according to ASTM C497.

C. Vertical Adjustment of Existing Manholes and Structures:
1. If required, adjust top elevation of existing manholes and structures to finished grades as indicated on Drawings.
2. Frames, Grates, and Covers:

a. Carefully remove frames, grates, and covers cleaned of mortar fragments.
b. Reset to required elevation according to requirements specified for installation of castings.

3. Reinforcing Bars:

a. Remove concrete without damaging existing vertical reinforcing bars if removal of existing concrete wall is required.
b. Clean vertical bars of concrete and bend into new concrete top slab or splice to required vertical reinforcement as indicated on Drawings.

4. Clean and apply sand-cement bonding compound on existing concrete surfaces to receive cast-in-place concrete.

END OF SECTION

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SECTION 33 05 16.13 - PRECAST CONCRETE UTILITY STRUCTURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Precast concrete utility structures.
2. Drainage system catch basins.
3. Drainage system inlets.
4. Drainage system junction boxes.
5. Drainage system sedimentation chambers.
6. Drainage system retention/diversion structures.
7. Sanitary sewer lift station pits.
8. Sanitary sewer lift station valve chambers.
9. Sanitary drain field dosing chambers.
10. Knock-out boxes.
11. Box culverts.
12. Oil-water separators.
13. Grease interceptors.
14. Acid retention basins.
15. Triturator pits.
16. Irrigation well pits.
17. Valve pits.
18. End walls.
19. Pipe ends.
20. Frames and covers.
21. Access hatches.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCE STANDARDS

A. American Association of State Highway and Transportation Officials:
1. AASHTO HB-17 - Standard Specifications for Highway Bridges.
2. AASHTO M306 - Standard Specification for Drainage, Sewer, Utility, and Related Castings.

B. American Concrete Institute:
1. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete.
2. ACI 211.2 - Standard Practice for Selecting Proportions for Structural Lightweight Concrete.
3. ACI 318 - Building Code Requirements for Structural Concrete and Commentary.

C. ASTM International:

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1. ASTM A36 - Standard Specification for Carbon Structural Steel.
2. ASTM A48 - Standard Specification for Gray Iron Castings.
3. ASTM A82 - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.
4. ASTM A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
5. ASTM A185 - Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.
6. ASTM A496 - Standard Specification for Steel Wire, Deformed, for Concrete Reinforcement.
7. ASTM A497 - Standard Specification for Steel Welded Wire Reinforcement, Deformed, for Concrete.
8. ASTM A615 - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
9. ASTM A706 - Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.
10. ASTM A767 - Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.
11. ASTM A775 - Standard Specification for Epoxy-Coated Steel Reinforcing Bars.
12. ASTM A780 - Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
13. ASTM A884 - Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement.
14. ASTM A996 - Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement.
15. ASTM C31 - Standard Practice for Making and Curing Concrete Test Specimens in the Field.
16. ASTM C33 - Standard Specification for Concrete Aggregates.
17. ASTM C39 - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
18. ASTM C138 - Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete.
19. ASTM C143 - Standard Test Method for Slump of Hydraulic-Cement Concrete.
20. ASTM C150 - Standard Specification for Portland Cement.
21. ASTM C173 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
22. ASTM C192 - Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory.
23. ASTM C231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
24. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
25. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
26. ASTM C330 - Standard Specification for Lightweight Aggregates for Structural Concrete.
27. ASTM C443 - Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets.
28. ASTM C494 - Standard Specification for Chemical Admixtures for Concrete.
29. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
30. ASTM C857 - Standard Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures.
31. ASTM C890 - Standard Practice for Minimum Structural Design Loading for Monolithic or Sectional Precast Concrete Water and Wastewater Structures.
32. ASTM C891 - Standard Practice for Installation of Underground Precast Concrete Utility Structures.

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33. ASTM C913 - Standard Specification for Precast Concrete Water and Wastewater Structures.
34. ASTM C923 - Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals.
35. ASTM C989 - Standard Specification for Slag Cement for Use in Concrete and Mortars.
36. ASTM C990 - Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants.
37. ASTM C1107 - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
38. ASTM C1244 - Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test Prior to Backfill.
39. ASTM C1315 - Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.
40. ASTM C1433 - Standard Specification for Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers.
41. ASTM C1504 - Standard Specification for Manufacture of Precast Reinforced Concrete Three-Sided Structures for Culverts and Storm Drains.

D. American Welding Society:
   1. AWS D1.1 - Structural Welding Code - Steel.
   2. AWS D1.4 - Structural Welding Code - Reinforced Steel.

E. Federal Aviation Administration:
   1. FAA AC 150/5320-6E - Airport Pavement Design and Evaluation.
   2. FAA AC 150/5370-10F - Standards for Specifying Construction of Airports.

F. National Precast Concrete Association:
   1. NPCA Plant Certification Program.
   2. NPCA Quality Control Manual for Precast and Prestressed Concrete Plants.

G. South Coast Air Quality Management District:
   1. SCAQMD Rule 1168 - Adhesive and Sealant Applications.

H. The Society for Protective Coatings:
   1. SSPC Paint 20 - Zinc-Rich Primers (Type I - Inorganic and Type II - Organic).

1.4 SUBMITTALS

A. Product Data:
   1. Submit data for frames and covers, steps, component construction, features, configuration, dimensions.

B. Shop Drawings:
   1. Indicate structure locations, elevations, sections, equipment supports, piping, conduit, sizes and elevations of penetrations.
   2. Indicate design, construction and installation details, typical reinforcement and additional reinforcement at openings and for each type, size, and configuration.

C. Submit concrete mix design for each different mix.

D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

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E. Delegated Design Submittals: Submit signed and sealed Shop Drawings with design calculations and assumptions for custom fabrications.

F. Manufacturer Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.

G. Source Quality-Control Submittals: Indicate results of shop factory tests and inspections.

H. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

I. Qualifications Statements:
   1. Submit qualifications for manufacturer, installer, and licensed professional.
   2. Submit manufacturer's approval of installer.

1.5 QUALITY ASSURANCE

A. Obtain precast concrete utility structures from single source.

B. Perform structural design according to ACI 318.

C. Perform Work according to NPCA Quality Control Manual for Precast and Prestressed Concrete Plants.

D. Conform to following material and fabrication requirements:
   1. Single Cell Box Culverts: ASTM C1433.
   2. Three Sided Structures: ASTM C1504.
   3. Other Structures: ASTM C913.

E. Perform welding according to following:
   1. Structural Steel: AWS D1.1.
   2. Reinforcing Steel: AWS D1.4.

F. Perform Work according to state and local standard specifications.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three years' documented experience.

B. Installer: Company specializing in performing Work of this Section with minimum three years' documented experience and approved by manufacturer.

C. Licensed Professional: Professional engineer experienced in design of specified Work and licensed.

D. Welders and Welding Procedures: AWS qualified within previous 12 months for employed weld types.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver products until concrete has cured 5 days or has attained minimum 75 percent of specified 28-day compressive strength.

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B. Inspection: Accept precast structures on Site in manufacturer's original packaging and inspect for damage.

C. Comply with precast concrete manufacturer instructions for unloading, storing, and moving precast structures.

D. Lift structures from designated lifting points.

E. Storage:

1. Store precast concrete manholes and drainage structures to prevent damage to Owner's property or other public or private property.
2. Repair property damaged from materials storage.

PART 2 - PRODUCTS

2.1 DESIGN REQUIREMENTS

A. Design structures for minimum loads conforming to ASTM C857 and ASTM C890.

B. Roof Live Load: Comply with following loading conditions, including impact load:
1. Heavy Traffic:
   a. ASTM C857, A-16 AASHTO HB-17, HS20-44.
   b. Maximum 16,000 lb. each wheel.

2.2 PRECAST CONCRETE UTILITY STRUCTURES

A. Precast Concrete Utility Structures: Reinforced precast concrete.

B. Foundation Slab: Only allowed when indicated on plans.
1. 3,000 psi minimum concrete strength.
2. Top Surface: Leveled.

2.3 FRAMES AND COVERS

A. Description:

1. Construction: ASTM A48, Class 30B, cast iron.
2. Lid:
   a. Surface: Machined flat bearing.
   b. Removable w/ pick holes.
3. Cover Design: Closed waterproof.
4. Live Load Rating: HS20 minimum load rating
5. Cover: Molded with identifying name and logo.
   a. Name of City
   b. Sanitary Sewer, Storm Sewer, or other utility identifier.
6. Nominal Lid Size: 32” Lid for 30” Clear Opening

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2.4 MATERIALS

A. Concrete:
   1. Cement:
      a. ASTM C150.
      b. Type I - Normal.
      c. Type: Portland.
   2. Fine and Coarse Aggregates: ASTM C33, except gradation requirements do not apply.
   3. Water: Clean and not detrimental to concrete.

B. Admixtures:
   1. Furnish materials according to TxDOT and City Standards
   2. Air Entrainment: Comply with ASTM C260.
   3. Chemical Admixtures:
      a. Comply with ASTM C494.

C. Concrete Reinforcement:
   1. Reinforcing Steel:
      a. Comply with ASTM A615.
      b. Yield Grade: 60 ksi.
      c. Billet Bars: Deformed.
      d. Finish: Uncoated.

2.5 FABRICATION

A. Fabricate precast concrete utility structures conforming to ACI 318 and NPCA Quality Control Manual for Precast and Prestressed Concrete Plants.

B. Fabricate precast concrete utility structures, knock-out panels, and openings to size and configuration as indicated on Drawings.

C. Construct forms to provide uniform precast concrete units with consistent dimensions.

D. Clean forms after each use.

E. Reinforcing:
   1. Install reinforcement by tying or welding to form rigid assemblies.
   2. Position reinforcement to maintain minimum 1/2 inch cover.
   3. Secure reinforcement to prevent displacement while placing concrete.

F. Position and secure embedded items to prevent displacement while placing concrete.

G. Deposit concrete in forms and consolidate concrete without segregating aggregate.

H. Provide initial curing by retaining moisture using one of following methods:
   1. Cover with polyethylene sheets.
   2. Cover with burlap or other absorptive material and keep continually moist.
   3. Apply curing compound according to manufacturer instructions.

I. Provide final curing according to manufacturer's standard.

J. Remove forms without damaging concrete.

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2.6 MIXES

A. Concrete:
1. Select proportions for normal weight concrete according to ACI 318 and ACI 211.1.
2. Concrete Criteria:
a. Compressive Strength: 4,000 psi at 28 days.
b. Water-Cement Ratio:
1) Concrete Exposed to Freezing and Thawing: Maximum 0.45 percent by mass.
2) Watertight Concrete Not Exposed to Freezing and Thawing: Maximum 0.48 percent by mass.
3) Concrete Exposed to Corrosive Conditions: 0.40 percent by mass.
c. Air Content:

MAXIMUM AGGREGATE SIZE, INCHES	AIR CONTENT, PERCENT	
	SEVERE EXPOSURE	MODERATE EXPOSURE
3/8 inches	6.0 to 9.0	4.5 to 7.5
1/2 inches	5.5 to 8.5	4.7 to 7.0
3/4 inches	4.5 to 7.5	3.5 to 6.5
1 inches	4.5 to 7.5	3.0 to 6.0
1-1/2 inches	4.5 to 7.0	3.0 to 6.0

3. Admixtures:
a. Include admixture types and quantities indicated in concrete mix designs approved through submittal process.
b. Do not use calcium chloride.

2.7 FINISHES

A. Concrete:
1. Formed Surfaces Not Exposed to View: As formed.
2. Unformed Surfaces:
a. Finish with vibrating screed or hand float.
b. Permitted: Color variations, minor indentations, chips, and spalls.
c. Not Permitted: Major imperfections, honeycomb, or other defects.
3. Exposed to View Finishes: Light broom finish unless otherwise noted on plans.

2.8 ACCESSORIES

A. Membrane Curing Compound: ASTM C309, Type I.

B. Steps: None unless specifically required by plans.

C. Inserted and Embedded Items:
1. Structural Steel Sections:
a. Comply with ASTM A36.
b. Finish: Galvanized.

D. Joint Sealants and Joint Gaskets:

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1. Gasket Joints for Circular Concrete Pipe:
   a. ASTM C443.
   b. Gaskets: Standard rubber.
2. External Sealing Bands:
   a. Comply with ASTM C877.
   b. Material: Type I, rubber and mastic.
3. Preformed Joint Sealants for Concrete Pipe and Box Sections: Comply with ASTM C990.
4. Elastomeric Joint Sealants:
   a. Comply with ASTM C920.
   b. Material: Silicone.
   c. Grade NS, Class 25.

E. Pipe Entry Connectors: Comply with ASTM C923.

F. Grout:
1. Cement Grout: Portland cement, sand, and water mixture with stiff consistency to suit intended purpose.
2. Non-Shrink Grout:
   a. Description: Premixed compound consisting of non-metallic aggregate, cement, and water-reducing and plasticizing agents.
   b. Conform to ASTM C1107.
   c. Minimum Compressive Strength: 2,400 psi in 48 hours, and 7,000 psi in 28 days.

2.9 SOURCE QUALITY CONTROL

A. Testing:
1. Perform following tests for each 150 cu. yd. of concrete placed with minimum one set of tests each week:
   a. Slump: Comply with ASTM C143.
   b. Compressive Strength: ASTM C31 and ASTM C39.
   c. Air Content: Comply with ASTM C231 ASTM C173.
   d. Unit Weight: Comply with ASTM C138.
2. Make test results available to Engineer or Owner upon request.

B. Inspection:
1. Visually inspect completed precast structures for defects.
2. Repair defects on surfaces exposed to view to achieve uniform appearance.
3. Repair honeycomb by removing loose material and applying grout to produce smooth surface flush with adjacent surface.
4. Repair major defects only if permitted by Engineer or Owner.

C. Owner Witnessing:
1. Allow witnessing of factory inspections and test at manufacturer's test facility.
2. Notify Owner at least three days before inspections and tests are scheduled.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that items provided by other Sections of Work are properly sized and located.

B. Verify correct size and elevation of excavation.

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C. Verify that subgrade and bedding are properly prepared, compacted, and ready to receive Work of this Section.

3.2 PREPARATION

A. Mark each precast structure by indentation or using waterproof paint showing date of manufacture, manufacturer, and identifying symbols and numbers shown on Drawings to indicate its intended use.

B. Coordinate placement of inlet and outlet pipe or duct sleeves required by other Sections.

C. Do not install structures if Site conditions induce loads exceeding weight capacity of structures.

D. Inspect precast concrete structures immediately prior to placement in excavation to verify that they are internally clean and free from damage; remove and replace damaged units.

3.3 INSTALLATION

A. Install underground precast utility structures according to ASTM C891.

B. Lift precast concrete structures at lifting points designated by manufacturer.

C. When lowering structures into excavations and joining pipe to units, take precautions to ensure that interior of pipeline and structure remains clean.

D. Install precast concrete base to elevation and alignment as indicated on Drawings.

E. Install cast-in-place concrete foundation slab when required and trowel top surface level.

F. Install precast concrete utility structures to elevation and alignment as indicated on Drawings.

G. Assembly of Multi-section Structures:
1. Lower each section into excavation.
2. Clean joint surfaces.
3. Install watertight joint seals according to manufacturer instructions using gasket joints, or external sealing bands, or grout as required.

H. Remove knockouts or cut structure to receive piping without creating openings larger than required to fit pipe; fill annular space with grout.

I. Pipe Connections:
1. Connect pipe to structure and seal watertight.
2. Cut pipe flush with interior of structure.

J. Foundation slab:
1. Grout to achieve slope to exit piping.
2. Trowel smooth.
3. Contour to form continuous drainage channel.

K. Paint interior with a coat of bituminous interior coating to achieve 3 mil min thickness.

L. Cover and Access Hatch:
1. Set level, without tipping, to elevations as indicated on Drawings.

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2. Set cover and access hatch 2 inches above finished grade for structures located within unpaved areas to allow area to be graded away from cover beginning 1 inch below top surface of frame.
3. Connect drain from access hatch frame to storm drainage system.
4. All hatches must come equipped with a manufacturer provided safety net.

M. Touch up damaged galvanized coatings.

N. Backfill excavations for structures with compacted select fill or with clean sand if excavation impedes compactive effort.

3.4 FIELD QUALITY CONTROL

A. Perform CCTV as specified in Section CCTV Testing Specification.

END OF SECTION

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SECTION 33 11 13 – PUBLIC UTILITY PIPING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Pipe and fittings for public utility lines including waterlines, sanitary sewer lines, and storm sewer lines.
2. Tapping sleeves and valves.
3. Underground pipe markers.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. All items including but not limited to materials, equipment, overhead, coordination, testing, labor, and supervision required for a complete and operable project shall be included in the bid for the project. All measurement and payment shall be based on the items of work that are specifically listed in the Bid Proposal. Any items not specifically listed in the Bid Proposal shall be considered subsidiary to unit cost items within the Bid Proposal and no additional payment shall be made for subsidiary items.

1.3 REFERENCE STANDARDS

A. American Society of Mechanical Engineers:

1. ASME B16.1 - Gray Iron Pipe Flanges and Flanged Fittings: Classes 25, 125, and 250.

B. ASTM International:

1. ASTM A36 - Standard Specification for Carbon Structural Steel.
2. ASTM A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
3. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength.
4. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft3 (600 kN-m/m3)).
5. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3)).
6. ASTM D1785 - Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
7. ASTM D2241 - Standard Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series).
8. ASTM D3035 - Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter.
9. ASTM D3139 - Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.
10. ASTM D6938 - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).
11. ASTM F477 - Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.

C. American Water Works Association:

1. AWWA C104 - Cement-Mortar Lining for Ductile-Iron Pipe and Fittings.
2. AWWA C105 - Polyethylene Encasement for Ductile-Iron Pipe Systems.
3. AWWA C110 - Ductile-Iron and Gray-Iron Fittings.
4. AWWA C111 - Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
5. AWWA C115 - Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges.
6. AWWA C151 - Ductile-Iron Pipe, Centrifugally Cast.
7. AWWA C153 - Ductile-Iron Compact Fittings.
8. AWWA C200 - Steel Water Pipe, 6 In. (150 mm) and Larger.
9. AWWA C203 - Coal-Tar Protective Coatings and Linings for Steel Water Pipelines - Enamel and Tape - Hot-Applied.
10. AWWA C205 - Cement-Mortar Protective Lining and Coating for Steel Water Pipe - 4 In. (100 mm) and Larger - Shop Applied.
11. AWWA C206 - Field Welding of Steel Water Pipe.
12. AWWA C207 - Steel Pipe Flanges for Waterworks Service - Sizes 4 In. Through 144 In. (100 mm Through 3,600 mm).
13. AWWA C208 - Dimensions for Fabricated Steel Water Pipe Fittings.
14. AWWA C213 - Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines.
15. AWWA C300 - Reinforced Concrete Pressure Pipe, Steel-Cylinder Type.
16. AWWA C301 - Prestressed Concrete Pressure Pipe, Steel-Cylinder Type.
17. AWWA C500 - Metal-Seated Gate Valves for Water Supply Service.
18. AWWA C600 - Installation of Ductile-Iron Mains and Their Appurtenances.
19. AWWA C605 - Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water.
20. AWWA C606 - Grooved and Shouldered Joints.
21. AWWA C700 - Cold-Water Meters - Displacement Type, Bronze Main Case.
22. AWWA C701 - Cold-Water Meters - Turbine Type, for Customer Service.
23. AWWA C702 - Cold-Water Meters - Compound Type.
24. AWWA C706 - Direct-Reading, Remote-Registration Systems for Cold-Water Meters.
25. AWWA C900 - Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 In. Through 12 In. (100 mm Through 300 mm), for Water Transmission and Distribution.
26. AWWA C901 - Polyethylene (PE) Pressure Pipe and Tubing, 1/2 In. (13 mm) Through 3 In.(76 mm), for Water Service.
27. AWWA C905 - Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 14 In. Through 48 In. (350 mm Through 1,200 mm) for Water Transmission and Distribution.
28. AWWA M6 - Water Meters - Selection, Installation, Testing, and Maintenance.

D. Manufacturers Standardization Society of the Valve and Fittings Industry:

1. MSS SP-60 - Connecting Flange Joints between Tapping Sleeves and Tapping Valves.

1.4 SUBMITTALS

A. Product Data: Submit data on pipe materials, pipe fittings, valves, and accessories.

B. Shop Drawings: Indicate piping layout, including piping specialties.

C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

D. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

E. Preconstruction Photographs:

1. Submit digital files of colored photographs of Work areas and material storage areas.

1.5 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations of piping mains, valves, connections, thrust restraints, and invert elevations.

B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.6 QUALITY ASSURANCE

A. Valves: Mark valve body with manufacturer's name and pressure rating.

B. Perform Work according to city standards.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store valves in shipping containers with manufacturer's labeling in place and inspect for damage.

B. Block individual and stockpiled pipe lengths to prevent moving.

C. Do not place pipe or pipe materials on private property or in areas obstructing pedestrian or vehicle traffic.

D. Store polyethylene and PVC materials out of sunlight.

E. Do not use chains to handle any PVC materials.

1.8 EXISTING CONDITIONS

A. Field Measurements:

1. Verify field measurements prior to fabrication.
2. Indicate field measurements on Shop Drawings.

PART 2 - PRODUCTS

2.1 WATER AND SANITARY SEWER PIPING

A. PVC: Waterline less than 4” diameter

1. ASTM D2241 SDR-21 PC200 PVC (no glued pipe allowed). Above ground piping shall be ductile iron for 3” diameter piping and threaded galvanized for less than 3” diameter piping.
2. Color: Blue
3. Fittings: Ductile iron AWWA C110 for 3” diameter pipe and PVC fittings for less than 3” diameter pipe.
4. Joints: Gasket

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B. PVC: Gravity Sewer and forcemain

1. Forcemain comply with D2241 160 psi pressure rating minimum.
2. Gravity Sewer comply with ASTM D2241 PR 160, SDR-26.
3. Gravity services shall be minimum 4” diameter.
4. Fittings: Ductile Iron AWWA C110.
5. Color: Green
6. Joints: Gasketed

a. Comply with ASTM D3212 ASTM F1336 for D3034 pipe.
b. Seals: PVC flexible elastomeric.
c. Solvent-cement couplings are not permitted.

C. Polyethylene Pipe:

1. Comply with AWWA C901.
2. Fittings:

a. Comply with AWWA C901.
b. Type: Molded.

3. Joints: Butt fusion.

D. Pipe Insulation: All above ground or exposed piping must be insulated.
1. Minimum 1.5” thick pre-formed 3 LB density fiberglass insulation (Owen’s Corning or John Manville) covered with aluminum jacket. Seams in aluminum jacket will be sealed with silicone caulk or other approved water proof compound. All exposed penetrations through the fiberglass insulation shall be sealed with a barrier mastic such as Cholders CP-11 or approved equal.

2.2 UNDERGROUND PIPE MARKERS

A. Tracer Wire and Warning Tape: (1 foot above pipe).

1. Tracer wire, required on all waterlines only, shall be blue THHN #14 AWG solid copper, high strength with minimum 20 mil insulation.
2. Warning Tape: 0.5” wide layer of aluminum foil bonded between two pieces of polyethylene film. Required on all piping. Dimensions shall not be less than 5.5 mils thick or 2” wide.
   a. Sanitary sewer shall be green and shall have the wording “Caution Sanitary Sewer Line Buried Below”.
   b. Waterlines shall be blue and shall have the wording “Caution Waterline Buried Below”

2.3 PIPE SUPPORTS AND ANCHORING

A. Metal for Pipe Support Brackets: Structural steel galvanized thoroughly coated with bituminous paint.

B. Metal Tie Rods and Clamps or Lugs: Galvanized steel sized according to NFPA 24, thoroughly coated with bituminous paint.

2.4 CONCRETE ENCASEMENT AND CRADLES

A. Concrete:

1. As specified in Section 03 30 00 - Cast-in-Place Concrete.
2. Reinforced
3. Compressive Strength: 3,600 psi at 28 days.
4. Finish: Rough troweled.

B. Concrete Reinforcement: As specified in Section 03 20 00 - Concrete Reinforcing.

2.5 FINISHES

A. Steel: Hot-dip galvanized after fabrication, according to ASTM A123.

2.6 ACCESSORIES

A. Concrete for Thrust Restraints: As specified in Section 03 30 00 - Cast-in-Place Concrete.

B. Bolt, Lugs, and Brackets: Stainless Steel

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that existing utility water main size, location, and invert are as indicated on Drawings.

3.2 PREPARATION

A. Preconstruction Site Photos:

1. Take photographs along centerline of proposed pipe trench; minimum one photograph for each 50 feet of pipe trench.
2. Show mailboxes, curbing, lawns, driveways, signs, culverts, and other existing Site features.
3. Include Project description, date taken, and sequential number on back of each photograph.

B. Pipe Cutting:

1. Cut pipe ends square, ream pipe and tube ends to full pipe diameter, and remove burrs.
2. Use only equipment specifically designed for pipe cutting; use of chisels or hand saws is not permitted.
3. Grind edges smooth with beveled end for push-on connections.

C. Remove scale and dirt on inside and outside before assembly.

D. Prepare pipe connections to equipment with flanges or unions.

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3.3 INSTALLATION

A. Existing Utilities & structures:

1. Utilities shown on plans were taken from field surveys following a utilities locate call by the engineer. The completeness of the accuracy of this data is not guaranteed. The contractor is responsible for verifying the location and depth of all underground utilities and structures and protecting them from damage during construction. Any damage to existing utilities that are caused by the contractor's operations shall be repaired by the contractor. Repairs will be made immediately and entirely at the contractor's expense. Texas 811 at least 48 hours before soil disturbing activities.
2. All structures damaged to facilitate construction including but not limited to roads, sidewalks, driveways, culverts, fences, retaining walls, pipes, street signs, traffic control devices, etc. will be repaired immediately. This work will be considered subsidiary to the unit prices in the bid form.
3. Contractor shall remove and reset mailboxes, yard lights, sprinkler systems, planters, etc. as required to facilitate line installation. This work will be considered subsidiary to the unit prices in the bid form.
4. Contractor shall protect/shore all existing structures from damage including retaining walls and foundations.
5. Existing waterlines shall remain in service during construction. Water shall be turned off for the tie-ins at a schedule which limits service loss to the greatest extent possible. All down time shall be scheduled with the engineer and approved by the city. Whenever possible, tie-ins shall be installed through use of tapping sleeves, in order to limit service loss. The contractor shall give 24 hr notice to all affected customers. Notice shall be in the form of a pre-approved door hanger listing the time of service loss, a 24 hour phone number, and an estimated time of restored service. The contractor shall not leave the jobsite until all services are restored. Specific areas requiring shutdown of large service areas or sensitive customers may require off peak work (night or weekend). A minimum 72 hour notice will be required to schedule this work.
6. Sewer lines shall remain in service during construction. Contractor shall be responsible for construction sequencing and/or bypass pumping as required to provide uninterrupted service.
7. City utility department will be responsible for operating all existing valves as necessary. Contractor shall not operate any valves without city approval.
8. Contractor may be required to locate existing utilities by excavation an "pot-holing." This work will be considered subsidiary to the unit prices in the bid form.

B. Bedding:

1. Excavation:

   a. Excavate pipe trench per OSHA requirements.
   b. Hand trim excavation for accurate placement of pipe to elevations as indicated on Drawings.

2. Dewater excavations to maintain dry conditions and to preserve final grades at bottom of excavation.
3. Provide sheeting and shoring as needed.
4. Place bedding material at trench bottom, level fill materials in one continuous layer not exceeding 8 inches compacted depth, and compact to 90 percent strandard proctor maximum density.

C. Service Connections

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1. Water and sanitary sewer services shown are existing locations identified during a field survey. All water and sanitary sewer services, including but not limited to: new services to be reconnected, and existing services to be relocated, that do not conform with city standards, shall be installed in accordance with water service installation details.
2. In multiple locations, existing meters are cast in pavement structures. This may include concrete, HMAC, or brick. All necessary pavement cuts to make connections to these meters will be made with clean saw cut lines, and pavement structure shall be repaired after connection to new service line.
3. Contractor shall furnish and install new service lines from connection all the way to the meter including coppersetter and connect to existing water service line. If meter box is damaged or made of corrugated metal or concrete, it shall be replaced. Faulty or damaged meters shall be replaced. All required meters shall be provided by the city and installed by the contractor. Contractor shall purchase and install the meter boxes. Replaced water meters are to be tagged with location and turned in to the city

D. General Piping Installation:

1. Install pipe according to AWWA C600 of AWWA C605. All utility lines must be installed in accordance with the TCEQ standards.
2. Field verify exact locations and depth of all existing utilities and structures prior to beginning soil disturbing activities. All crossing waterlines are to be connected to the proposed waterlines. Any utilities found that are not shown in the plans shall be reported to the engineer immediately.
3. Handle and assemble pipe according to manufacturer instructions and as indicated on Drawings. Chains will not be allowed to move and place piping.
4. Where existing utilities are encountered, separation distances as stipulated by the TCEQ shall be maintained. The contractor shall immediately notify the engineer of any conflict between existing utility lines and proposed utility lines. There shall be a minimum of 9’ horizontal separation between all water and wastewater lines. Where the nine foot separation distance cannot be achieved, the following criteria shall apply. (A) parallel lines where a potable waterline parallels a wastewater line and the wastewater line is not leaking, the potable waterline shall be located at least two feet above the wastewater line, measured vertically, and at least four feet away measured horizontally, from the wastewater line. Every effort shall be exerted not to disturb the bedding and backfill of the existing line, (B) Crossing line where a potable waterline crosses a non-pressure rated wastewater line, one segment of the waterline pipe shall be centered over the wastewater line such that the joints of the waterline pipe are equidistant and at least nine feet horizontally from the centerline of the wastewater line.
5. Contractor shall not be authorized to proceed until all necessary state and local permits are obtained.
6. Contractor shall keep all equipment, pipe, materials, etc. off private property and in city easements.
7. Contractor shall not close any streets without prior approval from engineer and city. Streets shall remain passable to residents at all time. Contractor shall notify emergency services and school district 48 prior to closing any streets. If street is closed during a normal trash pickup day, contractor shall collect trash from residences and deliver to a spot that local sanitation can pick up. In instances where construction is taking places in streets, streets shall be backfilled and made passable at end of each day. Contractor to provide traffic control and maintain traffic control signage in accordance with TMUTCD.
8. Access to driveways and mailboxes shall be preserved throughout the construction process. Disturbed mailboxes shall be set in 5 gal. buckets of gravel for temporary use and ease of relocation. No driveway shall be obstructed without the prior approval of the engineer. (24 hr. notice will be required for consideration.)
9. Material testing shall be performed by and independent testing laboratory and paid for by the city. The contractor shall be responsible for all fees for re-testing and re-inspecting due to failed test of workmanship or materials.

E. Sanitary Sewer Piping Installation

1. Separation distances as described above must be maintained according to TCEQ standards.
2. Proposed sewer lines replacing existing sewer lines shall be installed to match existing sanitary sewer grades as called out on plans. Contractor shall field verify all existing grades prior to construction.
3. The contractor shall install and maintain water tight plugs in all connections to the city's sanitary sewer system until the project is accepted by the city.
4. All sanitary sewer piping shall be tested and tv inspected per the technical specifications.
5. Minimum cover for all sanitary sewer piping shall be 5 feet beneath street and 3.5 feet for all other locations (unless otherwise noted on plans).
6. Existing manholes and sewer lines to be abandoned shall be plugged with Class B concrete and abandoned in place.
7. Service taps shall be adjusted as necessary with new cleanouts and connected to new sewer line in accordance with the plans and specifications.
8. Sanitary sewer service lines shall be:

    a. Installed on a constant downhill slope of a ¼" per foot (2%), or greater, from the cleanout to the city's sewer main.
    b. Installed with a minimum cover of 36"
    c. Tested for leakage with air or water prior to backfilling and prior to connection to the city sewer main.
    d. Installed with strict accordance with the pipe manufacturer's recommendations. Cleanouts shall be installed at all bends, and at the property line.
    e. Contractor shall reconnect all existing service connections to new sanitary sewer in accordance with details and specs.

9. Unless specifically detailed on plans, all piping interconnections and connections to structures shall match flowline to flowline.

F. Storm Sewer Piping Installation

1. Unless specifically detailed on plans, all piping interconnections and connections to structures shall match soffit to soffit.
2. Storm Sewer lines shall be installed to match grades as called out on plans. Contractor shall field verify all existing grades prior to construction.
3. Existing storm sewer lines to be abandoned shall be plugged with Class B concrete and abandoned in place.
4. Storm sewer lines shall be:

    a. Installed on a constant downhill slope.
    b. Installed with strict accordance with the pipe manufacturer's recommendations.
    c. Contractor shall reconnect all existing interconnections to new storm sewer at constant slope with matching soffits.

5. All storm sewer shall be TV inspected upon completion.

G. Polyethylene Encasement:

1. Encase all ductile iron, cast iron, steel fittings or piping in polyethylene to prevent contact with surrounding backfill material.
2. Comply with AWWA C105.

3. Terminate encasement 3 to 6 inches above ground where pipe is exposed.

H. Thrust Restraints: For waterline piping only.

1. Provide valves, tees, bends, caps, and plugs with concrete thrust blocks.
2. Pour concrete thrust blocks against undisturbed earth.
3. Locate thrust blocks at each elbow or change of pipe direction to resist resultant force and to ensure that pipe and fitting joints will be accessible for repair.
4. Install tie rods, clamps, setscrew retainer glands, or restrained joints.
5. Protect metal-restrained joint components against corrosion by applying poly-wrap.
6. Do not encase pipe and fitting joints to flanges.
7. Install thrust blocks, tie rods, and joint restraint at dead ends of water main.

I. Backfilling:

1. Backfill around sides and to top of pipe with cover fill in minimum lifts of 8 inches, tamp in place, and compact to 90 percent standard proctor maximum density.
2. Place and compact material immediately adjacent to pipes to avoid damage to pipe and prevent pipe misalignment.
3. Maintain optimum moisture content of bedding material to attain required compaction density.

J. Disinfection of Potable Water Piping System:

1. As specified in AWWA B300 and AWWA C651.

3.4 TOLERANCES

A. Install pipe to indicated elevation within tolerance of 5/8 inch.

3.5 FIELD QUALITY CONTROL

A. Test piping in accordance with “33 01 30.13 – Pipe and Manhole Testing” and “33 01 30.16 – TV Inspection of Sanitary and Storm Sewer”.

B. Compaction Testing per “Section 31 23 17 – Trenching”

C. All utility installations, connections, and structures shall not be backfilled prior to inspection by the owner or engineer.

D. If tests indicate Work does not meet specified requirements, remove Work, replace, and retest.

END OF SECTION

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ITEM 400000.00 – PIPE BURSTING

405.01 - GENERAL

This specification defines the approved methods and materials for the rehabilitation of existing gravity sewer lines by the Pipe Bursting or Pipe Crushing (Pipe Bursting/Crushing) process. The Pipe bursting process is defined as the reconstruction of gravity sewer pipe by installing an approved pipe material. Essentially the process involves the use of a hydraulic "moling" device or pneumatic hammer, suitable sized to break out the old pipe or using a modified boring "knife" with a flared plug that implodes and crushes the existing sewer pipe. Forward progress of the "mole" or the "knife" may be aided by the use of a hydraulic winch. Pipe bursting by static pull method is also acceptable. The replacement pipe is either pulled or pushed by means of hydraulic force into place, size on size and/or upsizing.

405.02- MATERIAL SPECIFICATIONS

Refer to relevant specification according to material specified on plans.

405.03 - BACKFILL

At all points where the polyethylene pipe has been exposed, such as at the insertion shafts, at service connection fittings, or other points where the old pipe must be removed, the polyethylene pipe and fittings shall be encased in cement stabilized sand or other high density material as specified by the Owner's Representative to prevent deflection due to earth loading or subsidence.

At this point, in preparation for the placing of the encasement material, debris and soil shall be removed along each side of the existing pipe down to the spring line. After the encasement material is in place and accepted by the engineer, backfill is placed and compacted to required finished grade in accordance with the Owner's Representative's specifications. Particular care shall be taken to ensure compaction of earth beneath the lateral pipe in order to reduce subsidence and resultant bending at the lateral connection at the sewer main.

405.04 - PRE-INSTALLATION PREPARATIONS

The Contractor shall submit a work plan to the Engineer for review and acceptance. The work plan shall address the following minimum preparation/steps, unless approved otherwise by the Engineer.

A. Safety

The Contractor shall carry out operations under this section in strict accordance with all applicable OSHA Standards. Particular attention is drawn to those safety requirements involving work on an elevated platform and entry into a confined space. It shall be the Contractor's responsibility to comply with OSHA Standards and Regulations pertaining to all aspects of the work.

B. Bypassing Sewage

When required for acceptable completion of the pipe bursting/crushing process, the Contractor shall provide for continuous sewage flow around the section(s) of pipe designated for the installation of replacement pipe. The pump bypass lines shall be of adequate capacity and size to handle the flow in accordance with Item 411, Sewer Flow Control.

C. Pre-Installation Video Inspection.

Television inspection of existing pipelines shall be performed by experienced personnel trained to operate closed circuit color television equipment.

Television inspection shall include the following:

- Videos shall be submitted to the City/Engineer.
- Videos will remain the property of the City.
- Video of the existing sewer shall have the appropriate stationing indicated for each service. Data and stationing to be shown on the video.
- Should any portion of the inspection video be of inadequate quality or coverage, the Contractor shall have the portion re-inspected and video taped at no additional expense to the City.

405.05 - INSTALLATION PROCEDURES

The Contractor shall submit information, in detail, of the procedure and the steps to be followed for the installation of the pipe bursting/crushing method selected, even if the process is named in the specification. All such instructions and procedures submitted shall be carefully followed during installation. Any proposed changes installation procedures shall require submittal of revised procedures and acceptance by the Engineer.

A. Finished Pipe

The installed replacement pipe shall be continuous over the entire length of each pipe segment from manhole to manhole and shall be free from visual defects such as foreign inclusions, concentrated ridges, discoloration, pitting, varying wall thickness and other deformities. Replacement pipe with gashes, nicks, abrasions, or any such physical damage which may have occurred during storage and/or handling, which are larger/deeper than 10% of the wall thickness shall not be used and shall be removed from the construction site. The replacement pipe passing through or terminating in a manhole shall be carefully cut out in a shape and manner approved by the Engineer. The invert and benches shall be streamlined and improved for smooth flow. The installed pipe shall meet the leakage requirements of the pressure test specified later.

B. Pipe Jointing

Sections of polyethylene replacement pipe shall be assembled and joined on the job site above the ground. Jointing shall be accomplished by the heating and butt-fusion method in strict conformance with the manufacturer's printed instructions.

The butt-fusion method for pipe joint shall be carried out in the field by operators with prior experience in fusing polyethylene pipe with similar equipment using proper jigs and tools per standard procedures outlined by the pipe manufacturer. These joints shall have a smooth, uniform, double rolled back bead made while applying the proper melt, pressure, and alignment. It shall be the sole responsibility of the Contractor to provide an acceptable butt-fusion joint. All joints shall be made available for inspection by the Engineer before insertion. The replacement pipe shall be joined on the site in appropriate working lengths near the insertion pit. The maximum length of continuous replacement pipe which shall be assembled above ground and pulled on the job site at any one time shall be 600 linear feet.

C. Insertion or Access Pits

The location and number of insertion or access pits shall be planned by the Contractor and submitted in writing for approval by the Engineer prior to excavation. The pits shall be located such that their total number shall be minimized and the length of replacement pipe installed in a single pull shall be maximized. Locations of damaged pipe shall be used for insertion pits if directed by the Engineer.

The cost for diversion pumping required around an insertion pit, from a manhole upstream to a manhole downstream, shall be per applicable item of these specifications.

Excavation for insertion pits shall not be paid for separately but shall be included in the unit price bid for pipe bursting/crushing.

D. Process Limitations

Though the installation process may be licensed or proprietary in nature, the Contractor SHALL NOT change any material, thickness, design values or procedural matters stated or approved in the submittals, without the Engineer's prior knowledge and preapproval. The Contractor shall submit, in writing, full denials about component materials, their properties and installation procedures and abide by them fully during the entire course of the project.

All sewer rehabilitation by pipe bursting/crushing methods is being considered structurally equal processes as far as "end product" required by the City. The minimum required performance criteria, and/or standards, physical/structural properties, chemicals resistance tests, and the replacement pipe thicknesses as given in this specification shall be strictly complied. It shall be the responsibility of the Contractor to comply with the specifications in full without any request for any change after the award of the contract. The City reserves the right to accept, reject, or modify any later requests for change at no additional cost to the City or even to the extent of asking credit for the City.

E. Post Construction Video Inspection

Television inspection of the completed pipelines shall be performed by experienced personnel trained to operate closed circuit color television equipment.

Television inspection shall include the following:

- Videos shall be submitted to the City/Engineer.
- Videos will remain the property of the City.
- Video tape of the completed sewer shall have the appropriate stationing indicated for each service. Data and stationing to be shown on the video.
- Should any portion of the inspection video be of inadequate quality or coverage, the Contractor shall have the portion re-inspected and video taped at no additional expense to the City.

405.06 - SEALING AND BENCHES IN MANHOLE

The replacement pipe shall be installed with a tight fitting seal with the existing or new manhole. Half-inch diameter activated oakum band soaked in Scotch seal 5600 or equal shall be applied circumferentially on the replacement pipe and encased with a cementitious mortar to prevent inflow at the manhole. The top half of the pipe within the manhole shall be neatly cut off and not broken or sheared off, at least four inches away from the manhole walls. The channel in the manhole shall be a smooth continuation of the pipe(s) and shall be merged with other lines or channels, if any. Channel cross-section shall be U-shaped with a minimum height of half pipe diameter to three-fourths of the pipe diameter for fifteen inches and larger. The side of the channels shall be built up with mortar/concrete, as specified, to provide benches at a maximum of 1 in 12 pitch towards the channel.

Payment for above work shall be incidental to sewer rehabilitation by the pipe bursting/crushing method, since that payment is made from centerline to centerline of manhole(s). Separate payment shall be made if no line or manhole is rehabilitated but benches are required to be improved as above.

The replacement pipe in the manhole shall be sealed as specified above before proceeding on to the next manhole section and all manholes shall be individually inspected for replacement pipe cut-offs, benches and sealing works.

405.07 - TESTING OF THE REPLACEMENT PIPE

All costs for testing the replacement pipe by a pressure method will be incidental to the installation. A low pressure air test shall be required after the replacement pipe has been installed in the existing sanitary sewer main. A low pressure air test of the replacement pipe before it has been sealed in place at the manholes will be required before any service reconnections have been made. The purpose of this test is to check the integrity of the joints that have been made and to verify that the replacement pipe has not been damaged by inserting it into the sanitary sewer.

Low pressure air test procedure will be as required in Item 450, Testing Sanitary Sewer Lines.

405.08 - PAYMENT

The unit price bid for rehabilitating the sewer main in the manner described shall be full compensation for all materials, labor, equipment, and incidentals required to install the replacement pipe within the sewer main, reworking the manholes inverts and benches, etc. Payment shall be for actual linear footage for replacement pipe installed in the field and shall be measured between the center lines of the manholes.

All costs for testing the replacement pipe shall be considered incidental to the cost of rehabilitating the sewer. The Contractor shall be responsible for making adequate and suitable arrangements for any bypass pumping that may become necessary to prevent any backflow into houses or buildings, or onto the streets between the time the replacement pipe in installed and the service reconnections have been made, tested, and approved by the City. Bypass pumping shall be performed and paid in accordance with Item 411, Sewer Flow Control.

All other payments shall be made as per bid items. No payment shall be made for work considered incidental or complimentary to a pay item already in bid item. The Contractor shall clarify, for his own benefit, all work required for any item, incidental or otherwise, prior to bidding.

UTILITY PERMIT APPROVAL

TO:	Opperman Case
	City of Nacogdoches
	P.O. Box 635030 Nacogdoches,75963

Date:	02-13-2025
Application/Permit No.:	00002/20241218/385392/483427/UP
District:	Lufkin

Highway	Control Section	Maintenance Section	County
BU0059F-K: From milepost 338+1.481 To milepost 340+0.27	0175-08		Nacogdoches
BU0059F-K: At milepost 340+0.402	0175-08		Nacogdoches

Schedule Dates: from 03/03/2025 to 06/30/2025

TxDOT offers no objection to the location on the right-of-way of your proposed utility installation, as described by Notice of Proposed Utility Installation No. 00002/20241218/385392/483427/UP dated

01/08/2025 and accompanying documentation, except as noted below.

Special Provisions:
You are required to notify TxDOT 48 hours (2 business days) before you start construction to allow for proper inspection and coordination of workdays and traffic control plans. Use the RULIS website for the 48-hour notification. DO NOT start construction until you have coordinated the construction start date and inspection with TxDOT. You are also required to keep a copy of this Approval and any approved amendments at the job site.

When installing utility lines on controlled-access highways, access for serving this installation shall be limited to access via (a) frontage roads where provided, (b) nearby or adjacent public roads or streets, (c) trails along or near the highway right-of-way lines, connecting only to intersecting roads; from any one or all of which entry may be made to the outer portion of the highway right-of-way for routine service and maintenance operations. The Installation Owner's rights of access to the through-traffic roadways and ramps shall be subject to the same rules and regulations as that apply to the general public except, however, if an emergency occurs and usual means of access for routine service operations will not permit the immediate action required by the Utility Installation Owner in making emergency repairs as required for the safety and welfare of the public, the Utility Owners shall have a temporary right of access to and from the through-traffic roadways and ramps as necessary to accomplish the required emergency repairs, provided TxDOT is immediately notified by the Utility Installation Owner when such repairs are initiated and adequate provision is made by the Utility Installation Owner for the convenience and safety of highway traffic.

The installation shall not damage any part of the highway, and adequate provisions must be made to cause minimum inconveniences to traffic and adjacent property owners. If the Utility Installation Owner fails to comply with any or all the requirements as set forth herein, the State may take such action as it deems appropriate to compel compliance.

1. **PERMIT** - The person in charge of this installation shall have a copy of the permit and its' attachments on the job at all times. Deviations from the approved permit must have prior approval of the Texas Department of Transportation.

2. **EXISTING UTILITIES** - The exact location of any utilities that may conflict with the proposed installation should be field verified by the installer during

3. **SAFETY** - Warning and protective devices, including flagmen, shall be used to prevent creation of a traffic hazard and to ensure the safety of the public in accordance with the Manual of Uniform Traffic Control Devices.

   Parking of employees' cars and trucks on both sides of the pavement will be prohibited and all such vehicles shall be parked on one side of the road and in no instance closer than a minimum of eight feet from the edge of the pavement.

All construction equipment and materials stored on highway right-of-way shall be stored in such a manner and at such locations (a minimum of 30 feet from nearest traffic lane) as not to interfere with the safe passage of traffic.

SME - Utility Coordinator Review
Review Answer: Recommend Approval w/ Comments/Changes
Response text:

SME Review Completed

SME ATTACHMENTS:

Included attachments:

SME Answers Summary 2865263.pdf

NEW SCHEDULE APPROVAL

Permit issued date: 02-13-2025

TO:	Opperman Case
	City of Nacogdoches
	P.O. Box 635030 Nacogdoches,75963

Date:	02-25-2025
Application/Permit No.:	00002/20241218/385392/483427/UP
District:	Lufkin

Highway	Control Section	Maintenance Section	County
BU0059F-K: From milepost 338+1.481 To milepost 340+0.27	0175-08		Nacogdoches
BU0059F-K: At milepost 340+0.402	0175-08		Nacogdoches
BU0059F-K: From milepost 338+1.481 To milepost 340+0.27	0175-08		Nacogdoches
BU0059F-K: At milepost 340+0.402	0175-08		Nacogdoches

New Schedule Approved dates: from 08/01/2025 to 11/28/2025

You are required to keep a copy of this Approval at the job site.