

THE CITY OF
BURLESON
TEXAS

CONTRACT DOCUMENTS

FOR

SW ALSBURY BOULEVARD WIDENING
FROM CR 920 TO CANDLER STREET (PHASE 1B)

CITY PROJECT NO. ST2302

Burleson, Texas

AUGUST 2024

Prepared For

THE CITY OF BURLESON



Prepared By

FREESE AND NICHOLS, INC.

Texas Registered Engineering Firm F-2144
801 Cherry Street # 2800, Fort Worth, TX 76102
(817) 735-7300

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SECTION B

INVITATION TO BID

SECTION B

INVITATION TO BID

CITY OF BURLESON

ITB 2024-026 SW ALSBURY BOULEVARD WIDENING FROM CR 920 TO CANDLER STREET (PHASE IB) CITY PROJECT NO. ST2302

Notice is hereby given that the City of Burleson is seeking proposals for (SW ALSBURY BOULEVARD WIDENING FROM CR 920 TO CANDLER STREET (PHASE 1B)). The deadline for submission is October 3, 2024, at 3:00 PM CST. The bid opening will be virtual at 3:30 PM. A link for the bid opening will be provided via Bonfire.

The project includes approximately 8,640 square yards of 8-inch thick reinforced concrete pavement, 700 linear feet of 24-inch diameter reinforced concrete storm drain pipe, 12 recessed curb inlets (various lengths – 10 feet, 15 feet, and 20 feet), pavement markings and signage, and 203 linear feet of 16-inch diameter C-900 DR-18 PVC water line with 135 linear feet by bore under the existing BNSF Railway.

Specifications and Contract Documents for this project shall be available for viewing and download in electronic (PDF) format at the City's e-procurement system, Bonfire <https://burlesontx.bonfirehub.com/login> (registration is required) at no cost beginning August 23, 2024.

Any interpretations, corrections, clarifications, or changes to this Invitation to Bid will be issued via addendum. Addenda will be posted in Bonfire. It is the responsibility of the respondent to monitor the Bonfire website for addenda. Proposers shall acknowledge receipt of each addendum by submitting a signed copy with their submission. Oral explanations will not be binding.

POSTED THIS the 23rd day of August 2024, in the Burleson City Hall, 141 West Renfro, Burleson, Texas.

August 23, 2024
August 30, 2024
Fort Worth Star-Telegram

SECTION I

INSTRUCTIONS TO BIDDERS

SECTION I
INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS

Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract (No. 1910-8, 1996 ed.) have the meanings assigned to them in the General Conditions. The term "BIDDER" means one who submits a Bid directly to OWNER, as distinct from a sub-bidder, who submits a bid to a BIDDER. The Term "Successful BIDDER" means the lowest, qualified, responsible and responsive BIDDER to whom OWNER (on the basis of OWNER'S evaluation) makes an award. The term "Bidding Documents" includes the Advertisement or Invitation to Bid, Instructions to Bidders, the Proposal, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

2. COPIES OF BIDDING DOCUMENTS

2.1. Complete sets of the Bidding Documents stated in the Advertisement or Invitation to Bid may be may be downloaded or viewed free of charge through the following website: <https://burlson.tx.bonfirehub.com/portal/?tab=openOpportunities>.

2.2. Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.3. OWNER and ENGINEER in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

3. QUALIFICATIONS OF BIDDER

The successful BIDDER may be required to submit written evidence, such as financial data, present commitments and available equipment, and will submit such data within seven calendar days of OWNER'S written request.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

4.1. It is the responsibility of each BIDDER before submitting a bid to (1) examine the Contract Documents thoroughly, (2) visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the work, (3) consider federal, state and local laws and regulations that may affect cost, progress, performance or furnishing of the work, (4) study and carefully correlate BIDDER'S observations with the Contract Documents and (5) notify ENGINEER or OWNER of all conflicts, errors or discrepancies in the Contract Documents.

SECTION I - INSTRUCTIONS TO BIDDERS

4.2. 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 furnished to OWNER by owners of such underground facilities or other, and OWNER does not assume responsibility for the accuracy or completeness thereof.

4.3. Provisions concerning responsibilities for the adequacy of data furnished to prospective BIDDERS on subsurface conditions, underground facilities and other physical conditions, and possible changes in the Contract Documents due to differing conditions appear in Paragraphs 4.02, 4.03 and 4.04 of the General Conditions.

4.4. Before submitting a bid each BIDDER will, at BIDDER'S own expense, make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the 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.

4.5. On request in advance OWNER will provide each BIDDER access to the site to conduct such explorations and tests, as each BIDDER deems necessary for submission of a bid. BIDDER shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.

4.6. The lands upon which the work is to be performed, right-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 are to be provided by CONTRACTOR. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by OWNER.

4.7. The submission of a bid will constitute an incontrovertible representation by BIDDER that BIDDER has complied with every requirement of Item 4, 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.

SECTION I - INSTRUCTIONS TO BIDDERS

- 4.8.** Reference is made to the Supplementary Conditions for identification of:
- a). Those reports or explorations and tests of subsurface conditions at the site which have been utilized by OWNER in preparation of the Contract Documents. BIDDER may rely upon the accuracy of the technical data contained in such reports, except as qualified in the report, but not upon nontechnical data, interpretations or opinions contained therein or for the completeness thereof for the purposes of bidding or construction. CONTRACTOR is alerted to the fact that certain subsurface conditions may change (such as groundwater levels) and that borings provide isolated information at the specific bore location only.
 - b). Those drawings of physical conditions in or relating to existing surface and subsurface conditions (except underground facilities) which are at or contiguous to the site which have been utilized by OWNER in preparation of the Contract Documents. BIDDER may rely upon the accuracy of the technical data contained in such drawings but not upon the completeness thereof for the purposes of bidding or construction.

Copies of such reports and drawings will be made available by OWNER to any BIDDER on request. Those reports and drawings are not part of the contract documents, but the technical data contained therein upon which BIDDER is entitled to rely as provided in Paragraphs a). and b). are incorporated therein by reference. Such technical data has been identified and established in the Supplementary Conditions.

5. INTERPRETATIONS AND ADDENDA

5.1. All questions about the meaning or intent of the Contract Documents are to be directed to OWNER or ENGINEER. Interpretations or clarifications considered necessary by OWNER or ENGINEER in response to such questions will be issued by Addenda and mailed or delivered to all parties recorded by ENGINEER as having received the bidding Documents. Questions received less than 48 hours prior to the time for opening Bids may not be answered. Any addenda issued prior to the opening of bids will be electronically transmitted by facsimile or electronic mail to each CONTRACTOR contemplating the submission of a proposal on this work. The CONTRACTOR will be notified by phone of the issuance of the addenda. The proposal as submitted by the CONTRACTOR will be so constructed as to include any addenda if such are issued by the OWNER prior to twenty-four (24) hours of the opening of bids. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

5.2. Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER or ENGINEER.

SECTION I - INSTRUCTIONS TO BIDDERS

6. BID SECURITY

6.1 Each bid must be accompanied by bid security made payable to OWNER in an amount of five percent of the BIDDER'S maximum Bid Price and in the form of a certified bank check or a Bid Bond issued by a surety meeting the requirements of Paragraph 5.1 of the General Conditions.

6.2 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 twenty one (21) calendar days after the Notice of Award, 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 the earlier of the fifth (5) working day after the effective Date of the Agreement or the forty-fifth (45) working day after the Bid opening, whereupon Bid security furnished by such Bidders will be returned. Bid security with Bids which are not competitive can be returned at the Bid opening upon BIDDER'S request.

7. CONTRACT TIME

7.1. The number of calendar days within which the work is to be completed and ready for final payment (the Contract Time) are set forth in the Proposal and Agreement.

7.2. The CONTRACTOR should be aware that the Contract time includes all time the CONTRACTOR is on the site. This time is in calendar days and begins on the date stipulated on the Notice to Proceed. The time on the Contract will continue to run until the project is completed and approved by the City.

8. LIQUIDATED DAMAGES & EARLY COMPLETION INCENTIVE

Provisions for liquidated damages and early completion incentives, if any, are set forth in the Agreement.

9. SUBSTITUTE OR "OR-EQUAL" ITEMS

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to the ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement unless the ENGINEER, at his option, elects to issue an Addenda naming a substitute or "or-equal" item prior to receipt of bids. The procedure for submission of any such application by CONTRACTOR and consideration by ENGINEER is set forth in Paragraph 6.05.A, 6.05.B, 6.05.C, 6.05.D, 6.05.E and 6.05.F of the General Conditions and may be supplemented in the General Requirements.

SECTION I - INSTRUCTIONS TO BIDDERS

10. SUBCONTRACTORS, SUPPLIERS AND OTHERS

10.1. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers and other persons and organizations including those who are to furnish the principle items of materials and equipment) to be submitted to OWNER in advance of the specified date prior to the Effective Date of the Agreement, the apparent Successful BIDDER, and any other bidder so requested, shall within fourteen (14) calendar days after the bid opening submit to OWNER a list of all such Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person or organization if requested by OWNER. If OWNER or ENGINEER after due investigation has reasonable objection to any proposed Subcontractor, Supplier, other person or organization, either may before the Notice of Award is given request the apparent Successful Bidder to submit an acceptable substitute, in which case the apparent Successful BIDDER shall submit an acceptable substitute, that BIDDER'S Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution and OWNER may consider such price adjustment in evaluating Bids and making the contract award.

If apparent Successful BIDDER declines to make any such substitutions, OWNER may award the contract to the next lowest BIDDER that proposes to use acceptable Subcontractors, Suppliers and other persons and organizations. The declining to make requested substitutions will not constitute grounds for sacrificing the Bid security of any BIDDER. Any subcontractor, Supplier, other person or organization listed and to whom OWNER or ENGINEER does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and ENGINEER subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06.B of the General Conditions.

10.2. No CONTRACTOR shall be required to employ any Subcontractor, Supplier, other person or organization against whom CONTRACTOR has reasonable objection.

11. PROPOSAL

11.1. The proposal is included in the Bidding Documents and additional copies may be obtained from OWNER or ENGINEER. All bids must be submitted on the ENGINEER'S form.

11.2. All bids shall be submitted electronically (through Bonfire website) using the provided spreadsheet. All backup documentation, including bid bond and CIQ, shall also be submitted electronically. Physical hard copies shall be submitted post bid.

11.2. The Bidder shall fill in all blanks on the Proposal spreadsheet form included in these bid documents. When submitting the physical hard copies post bid, all blanks on the Proposal shall be completed in printed handwritten ink or by typewriter.

SECTION I - INSTRUCTIONS TO BIDDERS

a. Bidder may use the original Proposal forms included in these bid documents or the Bidder may substitute a computer-generated proposal for the original proposal included in these bid documents. The substitute submittal shall be word-for-word as written in the original proposal contained herein. The Bidder shall also sign the Substitute Proposal.

b. If the Substitute Proposal changes the intent of a bid item or contains an error in the quantities, unit prices, or extension of prices, the OWNER may reject the bid submitted. Substitute Proposals must be Included in the same envelope as the remainder of the bid documents. The original proposal shall be clearly marked that a Substitute Proposal is obtained in the bid package submitted.

c. The Bid price of each item on the form shall be stated in words and numerals. Words take precedence in case of a conflict. In the case of a conflict between the unit price indicated and the extended amount shown, the unit indicated multiplied by the state quantity shall govern.

11.3. Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.

11.4. Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

11.5 All names must be typed or printed below the signature.

11.6. The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Proposal).

11.7. The address and telephone number for communications regarding the Bid must be shown.

12. SUBMISSION OF BIDS

Bids must be submitted at the time and place indicated in the Advertisement or Invitation to Bid and accompanied by the bid security and other required documents (including CIQ Form). The mere fact that a Proposal was dispatched will not be considered.

13. MODIFICATION AND WITHDRAWAL OF BIDS

SECTION I - INSTRUCTIONS TO BIDDERS

Bids may be modified or withdrawn by an appropriate document duly executed (in the 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.

14. OPENING OF BIDS

Bids will be opened and (unless obviously non-responsive) read aloud publicly. An abstract of the amounts of the base Bids and major alternates (if any) will be made available to Bidders after the opening of Bids.

15. BIDS TO REMAIN SUBJECT TO ACCEPTANCE

All bids will remain subject to acceptance for sixty-three (63) calendar days after the day of the Bids opening, but OWNER may, in its sole discretion, release any Bid and return the Bid security prior to that date.

16. AWARD OF CONTRACT

16.1 OWNER reserves the right to reject any and all Bids, to waive any and all formalities, and the right to disregard all nonconforming, nonresponsive, unbalanced or conditional Bids. Also, 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 responsible 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 unit price in words and the unit price in figures will be resolved in favor of the price in words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct Sum.

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

16.3. 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 in the Supplementary Conditions. OWNER also may 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.

16.4. 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

SECTION I - INSTRUCTIONS TO BIDDERS

organizations to perform and furnish the Work in accordance with the Contract Documents to OWNER'S satisfaction within the prescribed time.

16.5. If the contract is to be awarded, OWNER will give the Successful BIDDER a Notice of Award within sixty-three (63) calendar days after the day of the Bid opening.

17. CONTRACT SECURITY

Paragraph 5.01 of the General Conditions and the Supplementary Conditions set forth OWNER'S requirements as to maintenance, performance and payment Bonds. When the Successful BIDDER delivers the executed Agreement to OWNER, it must be accompanied by the required maintenance, performance and payment Bonds.

18. TRENCH SAFETY

The successful Bidder will be required to provide a trench safety plan at the time contracts are signed and within the twenty-one (21) calendar day time period after Notice of Award. All cost for providing and implementing the trench safety plan shall be included in the bid item for trench safety.

19. SIGNING OF AGREEMENT

When OWNER gives a Notice of Award to the Successful BIDDER, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within twenty-one (21) calendar days, thereafter CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with the required Bonds. Within fourteen (14) calendar days, thereafter OWNER shall deliver one fully signed counterpart to CONTRACTOR.

20. RETAINAGE

Provisions concerning retainage are set forth in the Agreement.

21. SALES AND USE TAXES

OWNER is exempt from Local and State Sales and Use Taxes on materials to be incorporated in the Work. Said taxes shall not be included in the Contract Price. However, CONTRACTOR must pay sales taxes on equipment rental, form materials, etc. not incorporated into the furnished project. Refer to Supplementary Conditions SC-6.10 for additional information.

SECTION I - INSTRUCTIONS TO BIDDERS

22. WAGES

Wage rates paid on this project must not be less than indicated on the Wage Rate Schedule included in these documents which is established by the City of Burleson in compliance with statutory requirements and prevailing wages in the locality of the project.

SECTION C

CONFLICT OF INTEREST QUESTIONNAIRE

(Completed questionnaire must be submitted with Proposal)

NOTICE TO ALL CITY VENDORS AND POTENTIAL VENDORS

Chapter 176 of the Texas Local Government Code

Chapter 176 of the Texas Local Government Code (“LGC”) requires any vendor that contracts with or is seeking to contract with a local governmental entity to file a Conflict of Interest Questionnaire (FORM CIQ) if the vendor either:

- (1) has an employment or other business relationship with an officer or a family member of an officer of the local governmental entity; or
- (2) has given an officer or a family member of an officer of the local governmental entity a gift or gifts with an aggregate value exceeding the maximum value permitted by Section 176.003(a)(2)(B) of the LGC not including gifts that are excluded under Section 176.003(a-1) of the LGC.

The FORM CIQ was created by the Texas Ethics Commission and is available online at www.ethics.state.tx.us.

When must the FORM CIQ be filed?

A vendor must file the FORM CIQ with the city no later than the seventh business day after the later of:

- (1) the date the vendor begins discussions with the local governmental entity to enter into a contract or the date the vendor submits an application or response to a request for proposals or bids; or
- (2) the date the vendor becomes aware that the vendor meets the requirements of Section 176.006 of the LGC.

Where must the FORM CIQ be filed?

City of Burleson
Attn: Purchasing Manager
141 W Renfro Street
Burleson, Texas 76028

Document A310™ – 2010

Conforms with The American Institute of Architects AIA Document 310

Bid Bond

CONTRACTOR:

(Name, legal status and address)

Jackson Construction, Ltd.
5112 Sun Valley Drive
Fort Worth, TX 76119

SURETY:

(Name, legal status and principal place of business)

The Hanover Insurance Company
440 Lincoln Street
Worcester, MA 01653

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:

(Name, legal status and address)

City of Burleson
141 W Renfro Street
Burleson, TX 76028

BOND AMOUNT: \$ 5%

Five Percent of Amount Bid

PROJECT:

(Name, location or address, and Project number, if any)

SW Alsbury Boulevard Widening - From CR 920 to Candler Street (Phase 1B)
CPN: ST2302

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 3rd day of October, 2024

Jackson Construction, Ltd.

(Principal)

(Seal)

By:

(Title)

President

The Hanover Insurance Company

(Surety)

(Seal)

By:

(Title) Holly Clevenger

Attorney-in-Fact



THE HANOVER INSURANCE COMPANY
MASSACHUSETTS BAY INSURANCE COMPANY
CITIZENS INSURANCE COMPANY OF AMERICA

POWER OF ATTORNEY

THIS Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

KNOW ALL PERSONS BY THESE PRESENTS:

That THE HANOVER INSURANCE COMPANY and MASSACHUSETTS BAY INSURANCE COMPANY, both being corporations organized and existing under the laws of the State of New Hampshire, and CITIZENS INSURANCE COMPANY OF AMERICA, a corporation organized and existing under the laws of the State of Michigan, (hereinafter individually and collectively the "Company") does hereby constitute and appoint,

Holly Clevenger

Of Dallas, TX individually, if there be more than one named, as its true and lawful attorney(s)-in-fact to sign, execute, seal, acknowledge and deliver for, and on its behalf, and as its act and deed any place within the United States, any and all surety bonds, recognizances, undertakings, or other surety obligations. The execution of such surety bonds, recognizances, undertakings or surety obligations, in pursuance of these presents, shall be as binding upon the Company as if they had been duly signed by the president and attested by the secretary of the Company, in their own proper persons. Provided however, that this power of attorney limits the acts of those named herein: and they have no authority to bind the Company except in the manner stated and to the extent of any limitation stated below:

Any such obligations in the United States, not to exceed Forty Million and No/100 (\$40,000,000) in any single instance

That this power is made and executed pursuant to the authority of the following Resolutions passed by the Board of Directors of said Company, and said Resolutions remain in full force and effect:

Surety Bond Number: Bid Bond
Principal: Jackson Construction, Ltd.
Obligee: City of Burlington

RESOLVED: That the President or any Vice President, in conjunction with any Vice President, be and they hereby are authorized and empowered to appoint Attorneys-in-fact of the Company, in its name and as it acts, to execute and acknowledge for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, waivers of citation and all other writings obligatory in the nature thereof, with power to attach thereto the seal of the Company. Any such writings so executed by such Attorneys-in-fact shall be binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company in their own proper persons.

RESOLVED: That any and all Powers of Attorney and Certified Copies of such Powers of Attorney and certification in respect thereto, granted and executed by the President or Vice President in conjunction with any Vice President of the Company, shall be binding on the Company to the same extent as if all signatures therein were manually affixed, even though one or more of any such signatures thereon may be facsimile. (Adopted October 7, 1981 – The Hanover Insurance Company; Adopted April 14, 1982 – Massachusetts Bay Insurance Company; Adopted September 7, 2001 – Citizens Insurance Company of America and affirmed by each Company on March 24, 2014)

IN WITNESS WHEREOF, THE HANOVER INSURANCE COMPANY, MASSACHUSETTS BAY INSURANCE COMPANY and CITIZENS INSURANCE COMPANY OF AMERICA have caused these presents to be sealed with their respective corporate seals, duly attested by two Vice Presidents, this 6th day of April, 2023



The Hanover Insurance Company
Massachusetts Bay Insurance Company
Citizens Insurance Company of America

James H. Kawiecki, Vice President

The Hanover Insurance Company
Massachusetts Bay Insurance Company
Citizens Insurance Company of America

John M. Mendoza, Vice President

STATE OF CONNECTICUT)
COUNTY OF HARTFORD) ss.

On this 6th day of April 2023 before me came the above named Executive Vice President and Vice President of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, to me personally known to be the individuals and officers described herein, and acknowledged that the seals affixed to the preceding instrument are the corporate seals of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, respectively, and that the said corporate seals and their signatures as officers were duly affixed and subscribed to said instrument by the authority and direction of said Corporations.

Wendy Latoumes
Notary Public, State of Connecticut
My Commission Expires July 31, 2025

Wendy Latoumes, Notary Public
My commission expires July 31, 2025

I, the undersigned Vice President of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, hereby certify that the above and foregoing is a full, true and correct copy of the Original Power of Attorney issued by said Companies, and do hereby further certify that the said Powers of Attorney are still in force and effect.

GIVEN under my hand and the seals of said Companies, at Worcester, Massachusetts, this 3rd day of October 2024.

CERTIFIED COPY

The Hanover Insurance Company
Massachusetts Bay Insurance Company
Citizens Insurance Company of America

John Rowedder, Vice President

IMPORTANT NOTICE

To obtain information or make a complaint:

You may call The Hanover Insurance Company/
Citizens Insurance Company of America's toll-free
telephone number for information or to make a
complaint at:

1-800-343-6044

You may also write to The Hanover Insurance Company/
Citizens Insurance Company of America at:

440 Lincoln Street
Worcester, MA 01653

You may contact the Texas Department of Insurance
to obtain information on companies, coverages,
rights or complaints at:

1-800-252-3439

You may write the Texas Department of Insurance:

P. O. Box 149104
Austin, TX 78714-9104
Fax: (512) 475-1771
Web: <http://www.tdi.texas.gov>
E-mail: ConsumerProtection@tdi.texas.gov

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium
or about a claim you should contact the agent or the
company first. If the dispute is not resolved, you may
contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY: This
notice is for information only and does not become
a part or condition of the attached document.

AVISO IMPORTANTE

Para obtener informacion o para someter una queja:

Usted puede llamar al numero de telefono gratis de
The Hanover Insurance Company/Citizens Insurance
Company of America's para informacion o para
someter una queja al:

1-800-343-6044

Usted tambien puede escribir a The Hanover Insurance
Company/Citizens Insurance Company of America al:

440 Lincoln Street
Worcester, MA 01653

Puede comunicarse con el Departamento de Seguros
de Texas para obtener informacion acerca de
compaņas, coberturas, derechos o quejas al:

1-800-252-3439

Puede escribir al Departamento de Seguros de Texas:

P. O. Box 149104
Austin, TX 78714-9104
Fax: (512) 475-1771
Web: <http://www.tdi.texas.gov>
E-mail: ConsumerProtection@tdi.texas.gov

DISPUTAS SOBRE PRIMAS O RECLAMOS:

Si tiene una disputa concerniente a su prima o a un
reclamo, debe comunicarse con el agente o la com-
paņa primero. Si no se resuelve la disputa, puede
entonces comunicarse con el departamento (TDI).

UNA ESTE AVISO A SU POLIZA: Este aviso es solo
para proposito de informacion y no se convierte en
parte o condicion del documento adjunto.

HOUSE BILL 89 VERIFICATION

I, Troy L. Jackson, the undersigned representative of
(Individual's Name)
Jackson Construction, Ltd.
(Business or Company)

hereinafter referred to as "Company", do hereby verify that the company named above, under the provisions of Subtitle F, Title 10, Government Code Chapter 2270:

1. Does not boycott Israel currently; and
2. Will not boycott Israel during the term of the contract.

Pursuant to Section 2270.01, Texas Government Code:

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



SIGNATURE OF COMPANY REPRESENTATIVE

Troy L. Jackson

PRINTED NAME OF COMPANY REPRESENTATIVE

10/03/2024

DATE

SECTION P
PROPOSAL
FOR
SW ALSBURY BOULEVARD WIDENING – FROM CR 920 TO CANDLER STREET
(PHASE 1B)

CITY PROJECT NO.ST2302

Date: 10/02/2024

To: Purchasing Manager
City of Burleson
141 W Renfro Street
Burleson, TX 76028

Gentlemen:

- 1.** The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

- 2.** BIDDER accepts all of the terms and conditions of the advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for sixty-three (63) calendar days after the day of Bid opening. BIDDER will sign and submit the Agreement with the Bonds and other documents required by the bidding requirements within twenty-one (21) calendar days after the date of OWNER's Notice of Award.

SECTION P - PROPOSAL

ITEM NO.	QTY	UNIT	DESCRIPTION & PRICE IN WORDS	UNIT PRICE	TOTAL PRICE
SECTION A - GENERAL IMPROVEMENTS					
A-1	1	LS	Mobilization and Demobilization (Maximum 5% of Total Bid), complete in place for the sum of One Hundred Twenty Thousand Dollars and No Cents	\$120,000.00	\$120,000.00
A-2	1	LS	Right-of-Way Preparation, complete in place for the sum of Sixty Thousand Dollars and No Cents	\$60,000.00	\$60,000.00
A-3	10	MO	Barricades, Signs and Traffic Handling, complete in place for the sum of Five Thousand Dollars and No Cents	\$5,000.00	\$50,000.00
A-4	1	LS	SWPPP Plan and Implementation, complete in place for the sum of Twenty Thousand Dollars and No Cents	\$20,000.00	\$20,000.00
A-5	80	LF	Remove Existing Drainage Culverts, Including Headwalls (Various Sizes), complete in place for the sum of Thirty Two Dollars and No Cents	\$32.00	\$2,560.00
A-6	8	EA	Remove Existing Drop Inlet, complete in place for the sum of Seven Hundred Dollars and No Cents	\$700.00	\$5,600.00
A-7	372	SY	Remove Existing Concrete Pavement, complete in place for the sum of Sixty Dollars and No Cents	\$60.00	\$22,320.00
A-8	190	SY	Remove Existing Concrete Sidewalk, complete in place for the sum of Fifty Two Dollars and No Cents	\$52.00	\$9,880.00
A-9	1	EA	Remove Existing Concrete Sidewalk Bridge, complete in place for the sum of Four Thousand Seven Hundred Dollars and No Cents	\$4,700.00	\$4,700.00
A-10	116	LF	Remove Concrete Header and Asphalt Joint at Railroad, complete in place for the sum of Forty One Dollars and No Cents	\$41.00	\$4,756.00
A-11	303	LF	Remove Existing Concrete Curb and Gutter, complete in place for the sum of Fifteen Dollars and No Cents	\$15.00	\$4,545.00
A-12	1	LS	Remove Existing PVC Underdrain and Cleanout at Bioretention Basin, complete in place for the sum of Ten Thousand Dollars and No Cents	\$10,000.00	\$10,000.00
A-13	2320	CY	Unclassified Excavation (Roadway), complete in place for the sum of Twenty One Dollars and No Cents	\$21.00	\$48,720.00
A-14	2550	CY	Borrow, complete in place for the sum of Thirty Seven Dollars and No Cents	\$37.00	\$94,350.00
A-15	13000	SY	Solid Block Sodding (Bermuda), Including Fertilizer and Water, complete in place for the sum of Six Dollars and No Cents	\$6.00	\$78,000.00
A-16	6500	SY	Hydromulch Seeding, Including Fertilizer and Water, complete in place for the sum of One Dollar and No Cents	\$1.00	\$6,500.00
A-17	19500	SY	4" Topsoil, complete in place for the sum of Three Dollars and No Cents	\$3.00	\$58,500.00
A-18	1	LS	Railroad Requirements (Flagman and Training), complete in place for the sum of Fifty Thousand Dollars and No Cents	\$50,000.00	\$50,000.00

ITEM NO.	QTY	UNIT	DESCRIPTION & PRICE IN WORDS	UNIT PRICE	TOTAL PRICE
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SUBTOTAL - SECTION A - GENERAL IMPROVEMENTS

Six Hundred Fifty Thousand Four Hundred Thirty One \$650,431.00

SECTION B - ROADWAY IMPROVEMENTS

B-1	9640	SY	8" Lime Stabilized Subgrade, complete in place for the sum of Seven Dollars and No Cents	\$7.00	\$67,480.00
B-2	203	TON	Hydrated Lime (42 LBS/SY), complete in place for the sum of Four Hundred Thirty Dollars and No Cents	\$430.00	\$87,290.00
B-3	8640	SY	8" Reinforced Concrete Pavement, complete in place for the sum of Eighty Four Dollars and No Cents	\$84.00	\$725,760.00
B-4	5960	LF	7" Monolithic Concrete Curb, complete in place for the sum of Four Dollars and No Cents	\$4.00	\$23,840.00
B-5	35	LF	7" Concrete Curb and Gutter, complete in place for the sum of One Hundred Dollars and No Cents	\$100.00	\$3,500.00
B-6	4	EA	Concrete Curb Opening, complete in place for the sum of Six Hundred Dollars and No Cents	\$600.00	\$2,400.00
B-7	35	SY	6" Concrete Driveway, complete in place for the sum of One Hundred Sixty Five Dollars and No Cents	\$165.00	\$5,775.00
B-8	115	SY	6" Flexible Base Driveway, complete in place for the sum of Forty Dollars and No Cents	\$40.00	\$4,600.00
B-9	4000	SY	5" Concrete Sidewalk, complete in place for the sum of Seventy Eight Dollars and No Cents	\$78.00	\$312,000.00
B-10	70	LF	Curb at Back of Sidewalk, complete in place for the sum of Thirty Four Dollars and No Cents	\$34.00	\$2,380.00
B-11	2	EA	Concrete Sidewalk Bridge, complete in place for the sum of Six Thousand Dollars and No Cents	\$6,000.00	\$12,000.00
B-12	10	EA	ADA Curb Ramp, complete in place for the sum of Three Thousand Dollars and No Cents	\$3,000.00	\$30,000.00
B-13	138	LF	Concrete Header at Railroad Crossing, complete in place for the sum of One Hundred Twenty Four Dollars and No Cents	\$124.00	\$17,112.00
B-14	178	LF	Asphalt Joint at Railroad Crossing, complete in place for the sum of One Hundred Ten Dollars and No Cents	\$110.00	\$19,580.00

SUBTOTAL - SECTION B - ROADWAY IMPROVEMENTS

One Million Three Hundred Thirteen Thousand Seven \$1,313,717.00

SECTION C - DRAINAGE IMPROVEMENTS

C-1	700	LF	24" Reinforced Concrete Pipe (Class III), complete in place for the sum of One Hundred Forty Eight Dollars and No Cents	\$148.00	\$103,600.00
C-2	4	EA	10' Recessed Curb Inlet, complete in place for the sum of Ten Thousand Dollars and No Cents	\$10,000.00	\$40,000.00

ITEM NO.	QTY	UNIT	DESCRIPTION & PRICE IN WORDS	UNIT PRICE	TOTAL PRICE
C-3	6	EA	15' Recessed Curb Inlet, complete in place for the sum of Fourteen Thousand Dollars and No Cents	\$14,000.00	\$84,000.00
C-4	2	EA	20' Recessed Curb Inlet, complete in place for the sum of Eighteen Thousand Dollars and No Cents	\$18,000.00	\$36,000.00
C-5	1	EA	4'x4' Storm Drain Manhole, complete in place for the sum of Eight Thousand Dollars and No Cents	\$8,000.00	\$8,000.00
C-6	2	EA	Adjust Existing Storm Drain Manhole to Proposed Grade, complete in place for the Four Thousand Dollars and No Cents	\$4,000.00	\$8,000.00
C-7	22	SY	4" Concrete Riprap, complete in place for the sum of One Hundred Forty Five Dollars and No Cents	\$145.00	\$3,190.00
C-8	700	LF	Trench Excavation Protection, complete in place for the sum of Two Dollars and No Cents	\$2.00	\$1,400.00
SUBTOTAL - SECTION C - DRAINAGE IMPROVEMENTS					
Two Hundred Eighty Four Thousand One Hundred Ninety					\$284,190.00

SECTION D - SIGNING AND PAVEMENT MARKING IMPROVEMENTS

D-1	2	EA	Remove and Relocate Existing Small Sign Assembly, complete in place for the sum of Seven Hundred Fifty Five Dollars and No Cents	\$755.00	\$1,510.00
D-2	3	EA	Remove Sign Assembly, complete in place for the sum of One Hundred Fifty Dollars and No Cents	\$150.00	\$450.00
D-3	8	EA	Small Sign Assembly, complete in place for the sum of Eight Hundred Ninety Five Dollars and No Cents	\$895.00	\$7,160.00
D-4	575	LF	REFL PAV MRK TY I AND TY II (W) 6" (SLD)(100MIL), complete in place for the One Dollar and Forty Cents	\$1.40	\$805.00
D-5	1500	LF	REFL PAV MRK TY I AND TY II (W) 6" (BRK)(100MIL), complete in place for the sum of One Dollar and Forty Cents	\$1.40	\$2,100.00
D-6	855	LF	REFL PAV MRK TY I AND TY II (W) 8" (SLD)(100MIL), complete in place for the Two Dollars and No Cents	\$2.00	\$1,710.00
D-7	66	LF	REFL PAV MRK TY I AND TY II (W) 12" (SLD)(100MIL), complete in place for the Five Dollars and No Cents	\$5.00	\$330.00
D-8	46	EA	REFL PAV MRK TY I AND TY II (W) 18" (YLD TRI)(100MIL), complete in place for Thirty Five Dollars and No Cents	\$35.00	\$1,610.00
D-9	780	LF	REFL PAV MRK TY I AND TY II (W) 24" (SLD)(100MIL), complete in place for the Ten Dollars and No Cents	\$10.00	\$7,800.00
D-10	9	EA	REFL PAV MRK TY I AND TY II (W) (WORD)(100MIL), complete in place for One Hundred Ninety Five Dollars and No Cents	\$195.00	\$1,755.00
D-11	7	EA	REFL PAV MRK TY I AND TY II (W) (ARROW)(100MIL), complete in place for One Hundred Ninety Dollars and No Cents	\$190.00	\$1,330.00
D-12	7	EA	REFL PAV MRK TY I AND TY II (W) (DBL ARROW)(100MIL), complete in place for		

ITEM NO.	QTY	UNIT	DESCRIPTION & PRICE IN WORDS	UNIT PRICE	TOTAL PRICE
D-13	4	EA	Three Hundred Fifty Dollars and No Cents REFL PAV MRK TY I AND TY II (W) (RAILROAD)(100MIL), complete in place	\$350.00	\$2,450.00
D-14	160	EA	Four Hundred Fifty Dollars and No Cents REFL PAV MRKR TY II-C-R, complete in place for the sum of	\$450.00	\$1,800.00
			Four Dollars and No Cents	\$4.00	\$640.00
SUBTOTAL - SECTION D - SIGNING AND PAVEMENT MARKING IMPROVEMENTS					
Thirty One Thousand Four Hundred Fifty Dollars and No					\$31,450.00

SECTION E - UTILITY IMPROVEMENTS

E-1	68	LF	16" AWWA C-900 DR-18 PVC Water Line, complete in place for the sum of		
E-2	135	LF	Two Hundred Twenty Five Dollars and No Cents 16" AWWA C-900 DR-18 PVC Water Line (As Carrier Pipe Within Steel Casing), complete in place for the sum of	\$225.00	\$15,300.00
E-3	135	LF	Two Hundred Fifty Three Dollars and No Cents 30" Steel Casing Pipe (By Bore), complete in place for the sum of	\$253.00	\$34,155.00
E-4	1	EA	Eight Hundred Ninety Dollars and No Cents Connection to Existing Water Line, complete in place for the sum of	\$890.00	\$120,150.00
E-5	2	EA	Twenty One Thousand Dollars and No Cents 16" Gate Valve, complete in place for the sum of	\$21,000.00	\$21,000.00
E-6	68	LF	Sixteen Thousand Dollars and No Cents Trench Excavation Protection, complete in place for the sum of	\$16,000.00	\$32,000.00
			Two Dollars and No Cents	\$2.00	\$136.00
SUBTOTAL - SECTION E - UTILITY IMPROVEMENTS					
Two Hundred Twenty Two Thousand Seven Hundred Forty					\$222,741.00

SECTION F - LANDSCAPE IMPROVEMENTS

F-1	80	EA	Large Shade Tree - 3" Cal. Container Grown, complete in place for the sum of		
F-2	1	LS	One Thousand Five Hundred Dollars and No Cents Landscape Irrigation, complete in place for the sum of Fifty Thousand Dollars and No Cents	\$1,500.00 \$50,000.00	\$120,000.00 \$50,000.00
SUBTOTAL - SECTION F - LANDSCAPE IMPROVEMENTS					
One Hundred Seventy Thousand Dollars and No Cents					\$170,000.00

SUMMARY

SUBTOTAL - SECTION A - GENERAL IMPROVEMENTS					\$650,431.00
SUBTOTAL - SECTION B - PAVEMENT IMPROVEMENTS					\$1,313,717.00
SUBTOTAL - SECTION C - DRAINAGE IMPROVEMENTS					\$284,190.00
SUBTOTAL - SECTION D - SIGNING AND PAVEMENT MARKING IMPROVEMENTS					\$31,450.00
SUBTOTAL - SECTION E - UTILITY IMPROVEMENTS					\$222,741.00
SUBTOTAL - SECTION F - LANDSCAPE IMPROVEMENTS					\$170,000.00
TOTAL BID					\$2,672,529.00
Two Million Six Hundred Seventy Two Thousand Five Hundred Twenty Nine Dollars and					

6. BIDDER acknowledges that the quantities indicated in the previous schedule are not guaranteed and may be changed to conform to the Work. BIDDER has read Paragraph 9.08 of the Supplementary Conditions and understands that the quantities shown in the previous schedule and as modified by change order will be the actual quantities paid by the OWNER for the completion of the work.

7. BIDDER agrees that the Work will be completed and ready for final payment within **three hundred (300) calendar days** from the date when the contract time commences to run.

8. BIDDER accepts the provisions of the Special Conditions as to liquidated damages in case of failure to complete the Work on time, and early completion incentives for early completion of the Work.

9. The terms used in this Bid which are defined in the General Conditions of Agreement included as part of the Contract Documents have the meanings assigned to them in the General Conditions.

Respectfully submitted,

By 

Title President

Address 5112 Sun Valley Dr.

Fort Worth, Texas 76119

Telephone No. 817-572-3303

Submitted by Jackson Construction, Ltd a corporation

Doing business as _____

Communication concerning this Bid should be directed to the attention of:

Steve Haberstroh (817) 572-3303

THE STATE OF TEXAS §

COUNTY OF JOHNSON §

AFFIDAVIT

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared **Troy L. Jackson** who is known to me or who was proved to me on the oath of _____ (name of person identifying the acknowledging person) or who was proved to me through _____ (description of identity card or other document issued by the federal or state government containing the picture and signature of the acknowledging person) to be the person whose name is subscribed to this affidavit; and being by me first duly sworn, upon oath stated as follows:

"My name is **Troy L. Jackson**. I am of sound mind and capable of making this affidavit. "I am a **President** for the **Jackson Construction, LTD** which company entered into a contract on the _____ day of _____, 20____, to construct the Summercrest Rehab (BRiCk to Hillside) Project WA2405, and I am duly authorized on behalf of said company to hereby swear and affirm that all wages for labor on the above-referenced project are in strict compliance with the established prevailing wage rates as described in the contract documents for the referenced project, and all wages have been and will be paid and satisfied as the prevailing rates may change from time to time. Upon request by the City of Burleson, I shall allow a complete examination of the financial records relative to this project, including, but not limited to, cancelled checks, invoices and statements at any time, and allow the City of Burleson to interview any and/or all employees of the above said company or any and/or all employees of said Company's subcontractor or subcontractors.

Also, I hereby agree on behalf of the above company, to be accountable for any and all penalties and/or fine provisions in accordance with the contract documents and relevant law.

Troy L. Jackson
AFFIANT

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 10 day of October 2024

Nicole McCollum
Notary Public In and For the State of Texas



Nicole McCollum
Notary's Printed Name

My Commission Expires: 10/30/24

SECTION NO. 4

OUT OF STATE CONTRACTOR COMPLIANCE TO STATE LAW

The State Legislature of the State of Texas at its 1985 Legislative Session passed House Bill 620 relative to the award of contracts to non-resident bidders. This law provides that, in order to be awarded a contract as low bidder, a non-resident bidder (out-of-state contractor whose corporate office or principal place of business is outside the State of Texas) bid projects in Texas at an amount lower than the lowest Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a non-resident bidder in order to obtain a comparable contract in the state in which the non-resident's principal place of business is located. The appropriate blanks in the following statement must be filled out by all out-of-state or non-resident bidders in order for those bids to meet specifications. The failure of out-of-state or non-resident contractors to do so will automatically disqualify that bidder.

Non-resident contractor in N/A (give state), our principal place of business, is required to be _____ percent lower than resident bidders by State Law. A copy of the statute is attached.

Non-resident contractor in N/A (give state), our principal place of business, is not required to underbid resident bidders.

BIDDER

Jackson Construction, LTD
Company

By Troy L. Jackson
(Please Print)

5112 Sun Valley Dr
Address



Signature

Fort Worth, TX 76119
City State Zip

President
Title (Please Print)

AFFIDAVIT AGAINST PROHIBITED ACTS

I hereby affirm that I am aware of the provisions of the Texas Penal Code Sec. 36.02, 36.08, 36.09, and 36.10 (a copy of which follows), dealing with Bribery and Gifts to Public Servants. I further affirm that I will adhere to such rules and instruct and require all agents, employees, and sub-contractors to do the same. I am further aware that any violation of these rules subjects this agreement to revocation, my removal from bid lists, prohibiting future contract/subcontract work, revocation of permits, and prosecution.


Signature **Troy L. Jackson**
President

Date

ATTEST (if corporation)

Date

TEXAS PENAL CODE

TITLE 8: OFFENSES AGAINST PUBLIC ADMINISTRATION

CHAPTER 36. BRIBERY AND CORRUPT INFLUENCE

36.02 BRIBERY

- (a) A person commits an offense if he intentionally or knowingly offers, confers or agrees to confer on another, or solicits, accepts or agrees to accept from another:
 - (1) any benefit as consideration for the recipient's decision, opinion, recommendation, vote or other exercise of discretion as a public servant, party official or voter;
 - (2) any benefit as consideration for the recipient's decision, vote, recommendation or other exercise of official discretion in a judicial or administrative proceeding;
 - (3) any benefit as consideration for a violation of a duty imposed by law on a public servant or party official; or
 - (4) any benefit that is a political contribution, as defined by Title 15, Election Code, if the benefit was offered, conferred, solicited, accepted or agreed to, pursuant to an express agreement, to take or withhold a specific exercise of official discretion if such exercise of official discretion would not have been taken or withheld but for the benefit; notwithstanding any rule of evidence or jury instruction allowing factual inferences in the absence of certain evidence, direct evidence of the express agreement shall be required in any prosecution under this subdivision.
 - (b) It is no defense to prosecution under this section that a person whom the actor sought to influence was not qualified to act in the desired way whether because he had not yet assumed office, or he lacked jurisdiction or for any other reason.
 - (c) It is no defense to prosecution under this section that the benefit is not offered or conferred or that the benefit is not solicited or accepted until after:
 - (1) the decision, opinion, recommendation, vote or other exercise of discretion has occurred; or
 - (2) the public servant ceases to be a public servant.
 - (d) It is an exception to the application of Subdivisions (1), (2) and (3) of Subsection (a) of this section that the benefit is a political contribution accepted as defined by Title 15, Election Code.
 - (e) An offense under this section is a felony of the second degree.
-

36.08 GIFT TO PUBLIC SERVANT BY PERSON SUBJECT TO HIS JURISDICTION

- (a) A public servant in an agency performing regulatory functions or conducting inspections or investigations commits an offense if he solicits, accepts or agrees to accept any benefit from a person the public servant knows to be subject to regulation, inspection or investigation by the public servant or his agency.
- (b) A public servant in an agency having custody of prisoners commits an offense if he solicits, accepts or agrees to accept any benefit from a person the public servant knows to be in his custody or the custody of his agency.
- (c) A public servant in an agency carrying on civil or criminal litigation on behalf of government commits an offense if he solicits, accepts or agrees to accept any benefit from a person against whom the public servant knows litigation is pending or contemplated by the public servant or his agency.
- (d) A public servant who exercises discretion in connection with contracts, purchases, payments, claims or other pecuniary transactions of government commits an offense if he solicits, accepts or agrees to accept any benefit from a person the public servant knows is interested in or likely to become interested in any contract, purchase, payment, claim or transaction involving the exercise of his discretion.
- (e) A public servant who has judicial or administrative authority, who is employed by or in a tribunal having judicial or administrative authority, or who participates in the enforcement of the tribunal's decisions, commits an offense if he solicits, accepts or agrees to accept any benefit from a person the public servant knows is interested in or likely to become interested in any matter before the public servant or tribunal.
- (f) A member of the legislature, the governor, the lieutenant governor or a person employed by a member of the legislature, the governor, the lieutenant governor or an agency of the legislature commits an offense if he solicits, accepts or agrees to accept any benefit from any person.
- (g) A public servant who is a hearing examiner employed by an agency performing regulatory functions and who conducts hearings in contested cases commits an offense if the public servant solicits, accepts or agrees to accept any benefit from any person who is appearing before the agency in a contested case, who is doing business with the agency, or who the public servant knows is interested in any matter before the public servant. The exception provided by Section 36.10(b) of this code does not apply to a benefit under this subsection.
- (h) An offense under this section is a Class A misdemeanor.

36.09 OFFERING GIFT TO PUBLIC SERVANT

- (a) A person commits an offense if he offers, confers or agrees to confer any benefit on a public servant that he knows the public servant is prohibited by law from accepting.
 - (b) An offense under this section is a Class A misdemeanor.
-

36.10 NON-APPLICABLE

- (a) Sections 36.08 (Gift to Public Servant) and 36.09 (Offering Gift to Public Servant) of this code do not apply to:
- (1) a fee prescribed by law to be received by a public servant or any other benefit to which the public servant is lawfully entitled or for which he gives legitimate consideration in a capacity other than as a public servant;
 - (2) a gift or other benefit conferred on account of kinship or a personal, professional or business relationship independent of the official status of the recipient; or
 - (3) a benefit to a public servant required to file a statement under Chapter 421, Acts of the 63rd Legislature, Regular Session, 1973 (Article 6252-9b, Vernon's Texas Civil Statutes), or a report under Title 15, Election Code, that is derived from a function in honor or appreciation of the recipient if:
 - (A) the benefit and the source of any benefit in excess of \$50 is reported in the statement; and
 - (B) the benefit is used solely to defray the expenses that accrue in the performance of duties or activities in connection with the office which are nonreimbursable by the state or political subdivision;
 - (4) a political contribution as defined by Title 15, Election Code; or
 - (5) a gift, award or memento to a member of the legislative or executive branch that is required to be reported under Chapter 305, Government Code.
- (b) Section 36.08 (Gift to Public Servant) of this code does not apply to food, lodging, transportation or entertainment accepted as a guest and, if the donee is required by law to report those items, reported by the donee in accordance with that law.
- (c) Section 36.09 (Offering Gift to Public Servant) of this code does not apply to food, lodging, transportation or entertainment accepted as a guest and, if the donor is required by law to report those items, reported by the donor in accordance with that law.
-

CONFLICT OF INTEREST

The Contractor covenants and agrees that Contractor and its officers, employees, and agents will have no interest, including personal financial interest, and will acquire no interest, either directly or indirectly, which will conflict in any manner with the performance of the services called for under this Contract. No officer or employee of the City shall have a financial interest, direct or indirect, in any contract with the City, or be financially interested, directly or indirectly, in the sale to the City of any land, materials, supplies or services, except on behalf of the City or in compliance with the provisions of the City of Burleson Personnel Policies and Procedures Manual. Any violation of this provision shall render this contract voidable at the discretion of the City.

A person or business, and their agents, contract or enter into an agreement with the City, are required by Texas Local Government Code, Chapter 176, to file a conflict of interest questionnaire FORM CIQ. Form CIQ is available online at www.ethics.state.tx.us or electronically at www.tml.org.legal - Ethics Form ECIQ.

Sec. 176.002. APPLICABILITY TO CERTAIN VENDORS AND OTHER PERSONS.

- (a) This chapter applies to a person who:
 - (1) enters or seeks to enter into a contract with a local governmental entity; or
 - (2) is an agent of a person described by Subdivision (1) in the person's business with a local governmental entity.
- (b) A person is not subject to the disclosure requirements of this chapter if the person is
 - (1) a state, a political subdivision of a state, the federal government, or a foreign government; or
 - (2) an employee of an entity described by Subdivision(1), acting in the employee's official capacity.

Sec. 176.006. Disclosure requirements for vendors and other persons; questionnaire.

- (a) A person described by Section 176.002(a) shall file a completed conflict of interest questionnaire if the person has a business relationship with a local governmental entity and:
 - (1) has an employment or other business relationship with an officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A); or
 - (2) has given an officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1).

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

- (1) the date that the person:
 - (A) begins discussion or negotiations to enter into a contract with the local governmental entity; or
 - (B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or
- (2) the date the person becomes aware:

The form must be filed with the City Secretary no later than seven days after the date the person or business contracts with the City. Such persons and businesses, and their agents, must also file an

updated questionnaire not later than September 1 of each year in which the person or business contract begins, and within seven days after the date of an event that would make a filed questionnaire incomplete or inaccurate. An updated complete questionnaire is not required if the person or business filed a questionnaire or updated questionnaire after June 1 but before September 1.

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor or other person doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 1491, 80th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code by a person who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the person meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code.

A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of person who has a business relationship with local governmental entity.

N/A

2 Check this box if you are filing an update to a previously filed questionnaire.

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)

3 Name of local government officer with whom filer has employment or business relationship.

N/A

Name of Officer

This section (item 3 including subparts A, B, C & D) must be completed for each officer with whom the filer has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the filer of the questionnaire?

Yes No

B. Is the filer of the questionnaire receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

Yes No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?

Yes No

D. Describe each employment or business relationship with the local government officer named in this section.

4



Signature of person doing business with the governmental entity
Troy L. Jackson, President

Date

Adopted 06/29/2007

Section 5B
Offeror Acknowledgement

Compliance with HB 89: Proposer agrees per HB 89 vendor shall not boycott Israel at any time while providing products or services to the City of Burleson.

Yes, we agree

No, we do not agree

Compliance with SB 252: Proposer agrees per SB 252 vendor shall not do business with Iran, Sudan or a foreign terrorist organization while providing products or services to the City of Burleson.

Yes, we agree

No, we do not agree

Compliance with SB 13: Proposer agrees per SB 13 vendor does not boycott energy companies as those terms are defined in the Texas Government Code § 809.001, and will not boycott energy companies during the term of any contract with the City of Burleson.

Yes, we agree

No, we do not agree

Compliance with SB 19: Proposer agrees per SB 19 vendor does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association as those terms are defined in the Texas Government Code § 2274.001, and that vendor will not so discriminate during the term of any contract with the City of Burleson.

Yes, we agree

No, we do not agree

Section 6A

Anticipated Subcontractor List

Please list subcontractors anticipated to complete work on the project below and their scope of work. This list is not a final vendor list. Substitutions, additions, and modifications will be allowed with written coordination and agreement by Owner.

Vendor Name	Scope of Work
ex. Water Line Contractors, LLC ex. Irrigation Specialties, LLC	ex. Water and sewer utilities ex. Irrigation
Herbert S. Beasley Land Surveying	Surveying
ProTex Environmental, LLC	SWPPP
ProTex Erosion Control, LLC	Erosion Control
4-Horn Traffic & Barricade	Traffic Control & Barricades
C. Green Scaping	Landscaping
Road Master Striping	Pavement Striping
Herrera Brothers	Bores

SECTION A

AGREEMENT

SECTION A
AGREEMENT
BETWEEN OWNER AND CONTRACTOR

THIS AGREEMENT is dated as of the 4th day of NOVEMBER in the year 2024 by and between the City of Burleson (hereinafter called OWNER) and JACKSON CONSTRUCTION, LTD (hereinafter called CONTRACTOR). OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK.

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

**SW ALSBURY BOULEVARD WIDENING – FROM CR 920 TO CANDLER STREET
(PHASE 1B)**

CITY PROJECT NO. ST2302

The project for which the Work under the Contract Documents may be the whole or only part is generally described as follows:

**WIDEN EXISTING TWO-LANE DIVIDED CONCRETE ROADWAY TO A FOUR-LANE
DIVIDED CONCRETE ROADWAY, CONCRETE SHARED USE PATHS, PIPE STORM
DRAIN SYSTEM, PAVEMENT MARKING, AND SIGNAGE**

Article 2. ENGINEER.

The project has been designed by **FREESE AND NICHOLS, INC.** who is hereinafter called ENGINEER and who is to act as OWNER'S representative, assumes all duties and responsibilities and has the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 3. CONTRACT TIME.

3.1. The Work shall be completed and ready for final payment in accordance with paragraphs 15.06 of the General Conditions within **three hundred (300) calendar days** from the date indicated in the Notice to Proceed or when the Contract Time commences to run as provided in paragraph 2.03 of the General Conditions.

SECTION A - AGREEMENT

3.2. **Liquidated Damages.** OWNER and CONTRACTOR recognize that time is of the essence in this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) **CONTRACTOR shall pay OWNER One Thousand Dollars (\$1,000.00) for each calendar day** which exceeds the time specified in paragraph 3.1 when the Work is approved and ready for final payment.

Article 4. CONTRACT PRICE.

4.1. OWNER shall pay CONTRACTOR for completion of the Work on a Unit Price Work Basis in accordance with the Contract Documents in current funds based on the contract quantities and unit prices stated in the proposal or as modified by change order, the sum of which (TWO MILLION, SIX HUNDRED SEVENTY-TWO, FIVE HUNDRED TWENTY-NINE AND NO/100 DOLLARS (\$2,672,529.00)).

Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

5.1. **Progress Payments.** OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment, on or about the thirtieth (30th) day of each month during construction. All progress payments will be on the basis of unit prices stated in the proposal and the completed units of work as determined by OWNER minus five percent (5%) retainage to be held by OWNER until final payment but, in each case, less the aggregate of payments previously made and less such amounts as OWNER shall determine, or OWNER may withhold, in accordance with paragraph 15.01 of the General Conditions.

5.2. **Final Payment.** Upon completion and acceptance of the Work in accordance with paragraph 15.06.A of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 15.06.B.

Article 6. INTEREST.

All moneys not paid when due as provided in Article 15 of the General Conditions shall bear interest at the maximum rate allowed by law at the place of the Project.

SECTION A - AGREEMENT

Article 7. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

7.1. **CONTRACTOR** has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions, laws, and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.

7.2. **CONTRACTOR** has studied carefully all reports of explorations and tests of subsurface conditions and drawings of physical conditions which are identified in the Supplementary Conditions as provided in paragraph 5.03 of the General Conditions, and accepts the determination set forth in paragraphs SC-5.03.A of the Supplementary Conditions of the extent of the technical data contained in such reports and drawings upon which CONTRACTOR is entitled to rely.

7.3. **CONTRACTOR** has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies (in addition to or to supplement those referred to in paragraph 7.2 above) which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, progress, performance or furnishing of Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Document, including specifically the provisions of paragraph 5.02 and 5.03 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.

7.4. **CONTRACTOR** has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by CONTRACTOR in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 5.05 of the General Conditions.

7.5. **CONTRACTOR** has correlated the results of all such observations, examinations, investigations, exploration, tests, reports and studies with the terms and conditions of the Contract Documents.

SECTION A - AGREEMENT

7.6. **CONTRACTOR** has given **ENGINEER** written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by **ENGINEER** is acceptable to **CONTRACTOR**.

SECTION A - AGREEMENT

Article 8. CONTRACT DOCUMENTS.

The Contract Documents, which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work, consist of the following:

- 8.1. Agreement, identified as Section A.
- 8.2. Notice of Award.
- 8.3. CONTRACTOR'S Proposal, identified as Section P.
- 8.4. General Conditions, identified as Section GC.
- 8.5. Supplementary Conditions, identified as Section SC.
- 8.6. General Requirements, identified as Section GR.
- 8.7. Specifications bearing the title "Public Works Construction Standards North Central Texas, Fifth Edition". A set of specifications is not attached to the signed Contract Documents but may be obtained from the North Central Texas Council of Governments. Specification bearing the title "2014 Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges". A set of specifications is not attached to the signed Contract Documents but may be obtained from the Texas Department of Transportation.
- 8.8. Drawings, consisting of a cover sheet bearing the title "SW ALSBURY BOULEVARD – FROM CR 920 TO CANDLER STREET (PHASE 1B)". A set of drawings is not attached to the signed Contract Documents but may be obtained from the Engineer.
- 8.9. Performance and Payment Bonds, identified as Section PB.
- 8.10. Maintenance Bond, identified as Section MB.

There are no Contract Documents other than those listed above in Article 8. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.04 of the General Conditions.

SECTION A - AGREEMENT

Article 9. MISCELLANEOUS

9.1. Terms used in this Agreement, which are defined in Article 1 of the General Conditions, will have the meanings indicated in the General Conditions.

9.2. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound, and specifically but without limitation moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.3. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

SECTION A - AGREEMENT

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed five copies of this Agreement. Three counterparts have been delivered to OWNER and two counterparts have been delivered to CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by ENGINEER on their behalf.

This Agreement will be effective on the _____ day of _____, 2024.

OWNER

CONTRACTOR **Jackson Construction, LTD**

CITY OF BURLESON

By _____
City Manager

By 
Troy L. Jackson President

Attest _____
Purchasing Manager

Attest 

Address for giving notices:

141 W Renfro Street
Burleson, Texas 76028

Address for giving notices:

5112 Sun Valley Dr.
Fort Worth, TX 76119

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

List name of person to whose attention notices are to be sent:

(If CONTRACTOR is a corporation attach evidence of authority to sign.)

Approved as to Form Only/Not Content

City Attorney Date

PERFORMANCE BOND

BOND NO. 1112576

STATE OF TEXAS §
COUNTY OF Johnson §

KNOW ALL MEN BY THESE PRESENTS:

That Jackson Construction, Ltd. of the City of Fort Worth, County of Tarrant, State of Texas, (hereinafter referred to as "Principal"), and The Hanover Insurance Company (hereinafter referred to as "Surety"), authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto City of Burleson (hereinafter referred to as "Owner") in the penal sum of \$2,672,529.00 Two Million Six Hundred Seventy Two Thousand Five Hundred Twenty Nine & 00/100 for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

WHEREAS, the Principal has entered into a certain written contract with the Owner, dated the 4th day of October, 2024, to construct SW ALSBURY BOULEVARD WIDENING – FROM CR 920 TO CANDLER STREET (PHASE 1B) which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

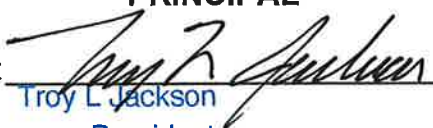
NOW, THEREFORE, the condition of this obligation is such, that if the said Principal fully and faithfully executes the work and performance of the contract in accordance with the plans, specifications, and contract documents, including any extensions thereof, and according to the true intent and meaning of said contract and the plans and specifications hereto annexed, then this obligation shall be 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, Public Work Performance and Payment Bonds, as amended, and Chapter 53.201 of the Texas Property Code, and all liabilities on this bond shall be determined in accordance with the provisions of said Article to the same extent as if they were fully copied at length herein.

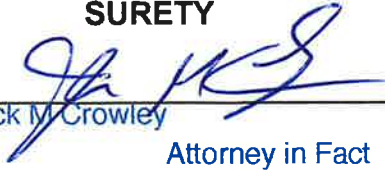
Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or the work performed thereunder, or the plans, specifications, or drawings accompanying the same, shall in anyway affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and surety have signed and sealed this instrument on this the 10th of October, 2024.

Jackson Construction, Ltd.

PRINCIPAL
By: 
Troy L. Jackson
Title: President
Address: 5112 Sun Valley Drive
Fort Worth, TX 76119

The Hanover Insurance Company

SURETY
By: 
Jack M. Crowley
Title: Attorney in Fact
Address: 440 Lincoln Street
Worcester, MA 01615

The name and address of the Resident Agent of Surety is:
Jack Crowley / Willis Towers Watson

500 N Akard Street, #4300, Dallas, TX 75201

PAYMENT BOND

BOND NO. 1112576

STATE OF TEXAS §
COUNTY OF Johnson §

KNOW ALL MEN BY THESE PRESENTS:

That Jackson Construction, Ltd. of the City of Fort Worth, County of Tarrant, State of Texas, (hereinafter referred to as "Principal"), and The Hanover Insurance Company (hereinafter referred to as "Surety"), authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto City of Burleson (hereinafter referred to as "Owner") in the penal sum of \$2,672,529.00 Two Million Six Hundred Seventy Two Thousand Five Hundred Twenty Nine & 00/100 for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

WHEREAS, the Principal has entered into a certain written contract with the Owner, dated the 4th day of October, 2024, to construct SW ALSBURY BOULEVARD WIDENING – FROM CR 920 TO CANDLER STREET (PHASE 1B) 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 the bond guarantees the full and proper protection of all claimants supplying labor and material in the prosecution of the work provided for in said contract and for the use of each claimant, and that conversely should the Principal faithfully perform said contract and in all respects duly and faithfully observe and perform all and singular the covenants, conditions, and agreements in and by said contract agreed to by the Principal, and according to the true intent and meaning of said contract and the claims and specifications hereto annexed, then this obligation shall be 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, Public Work Performance and Payment Bonds, as amended, and Chapter 53.201 of the Texas Property Code, and all liabilities on this bond shall be determined in accordance with the provisions of said Article to the same extent as if they were fully copied at length herein.

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work performed

thereunder, or the plans, specifications, or drawings accompanying the same, shall in any affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and surety have signed and sealed this instrument on this the 10th of October, 2024.

Jackson Construction, Ltd.

The Hanover Insurance Company

PRINCIPAL

SURETY

By: 
Troy L. Jackson

By: 
Jack M. Crowley

Title: President

Title: Attorney in Fact

Address: 5112 Sun Valley Drive

Address: 440 Lincoln Street

Fort Worth, TX 76119

Worcester, MA 01615

The name and address of the Resident Agent of Surety is:

Jack Crowley / Willis Towers Watson

500 N Akard Street, #4300, Dallas, TX 75201

MAINTENANCE BOND

BOND NO. 1112576

STATE OF TEXAS §
COUNTY OF Johnson §

KNOW ALL MEN BY THESE PRESENTS:

THAT, Jackson Construction, Ltd., hereinafter called CONTRACTOR, as principal, and The Hanover Insurance Company, a corporation organized under the laws of the State of Texas, as surety, do hereby acknowledge themselves to be held and bound to pay unto the City of Burleson, a municipal Corporation, chartered by virtue of the Constitution and Laws of the State of Texas, at Burleson, in Johnson County, Texas, the sum of \$2,672,529.00
Two Million Six Hundred Seventy Two Thousand Five Hundred Twenty Nine & 00/100

lawful money of the United States, for the payment of which sum well and truly to be made unto said City of Burleson and its successors, said CONTRACTOR and surety do hereby bind themselves, their heirs, executors, administrators, assigns and successors, jointly and severally.

This obligation is conditioned, however; that,

WHEREAS, said CONTRACTOR has this day entered into a written Contract with the City of Burleson, Texas, the OWNER, dated the 4th day of October, 2024, a copy of which is attached hereto and made a part hereof, SW ALSBURY BOULEVARD WIDENING – FROM CR 920 TO CANDLER STREET (PHASE 1B), which this contract is hereby referred to and made a part hereof as fully and to the same extent as if copied verbatim herein, such project and construction in the City of Burleson, together with the necessary grading and excavation, which Contract and Specifications therein mentioned adopted by the City are expressly made a part hereof, as though written herein in full; and,

WHEREAS, in said Contract, CONTRACTOR binds itself to use such materials and to so construct the work that it will remain in good repair and conditions for and during the period of two (2) years after the date of final acceptance of the work by the City, and,

WHEREAS, said CONTRACTOR binds itself to maintain said work in good repair and condition for said term of two (2) years; and,

WHEREAS, said CONTRACTOR binds itself to repair or reconstruct the work in whole or in part at anytime within said period, if in the opinion of the City ENGINEER in the City of Burleson, it be necessary; and,

WHEREAS, said CONTRACTOR binds itself, upon receiving notice of the need thereof to repair or reconstruct said work as herein provided.

NOW, THEREFORE, if said CONTRACTOR shall keep and perform its said agreement to maintain, repair or reconstruct said work in accordance with all the terms and conditions of said Contract, these presents shall be null and void, and have no force or effect. Otherwise, this Bond shall be and remain in full force and effect, and said City shall have and recover from the said CONTRACTOR and its surety damages in the premises as prescribed by said Contract.

This obligation shall be a continuing one and successive recoveries may be had hereon for successive breaches until the full amount hereof is exhausted.

IN WITNESS WHEREOF, Jackson Construction, Ltd. has caused these presents to be executed in five counterparts by its authorized President and said The Hanover Insurance Company has caused these presents to be executed in five counterparts by its Attorney In Fact and attested by its corporate seal, this 10th day of October, 2024.

Jackson Construction, Ltd.

CONTRACTOR

By: 
Troy L. Jackson, President

The Hanover Insurance Company

SURETY

By: 
ATTORNEY IN FACT
Jack M Crowley

WITNESS:


MK Crowley

(SEAL)

THE HANOVER INSURANCE COMPANY
MASSACHUSETTS BAY INSURANCE COMPANY
CITIZENS INSURANCE COMPANY OF AMERICA

POWER OF ATTORNEY

THIS Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

KNOW ALL PERSONS BY THESE PRESENTS:

That THE HANOVER INSURANCE COMPANY and MASSACHUSETTS BAY INSURANCE COMPANY, both being corporations organized and existing under the laws of the State of New Hampshire, and CITIZENS INSURANCE COMPANY OF AMERICA, a corporation organized and existing under the laws of the State of Michigan, (hereinafter individually and collectively the "Company") does hereby constitute and appoint,

Jack M. Crowley, Laurie Pflug, and/or Holly Clevenger

Of Willis Towers Watson Insurance Services West, Inc of Dallas, TX each individually, if there be more than one named, as its true and lawful attorney(s)-in-fact to sign, execute, seal, acknowledge and deliver for, and on its behalf, and as its act and deed any place within the United States, any and all surety bonds, recognizances, undertakings, or other surety obligations. The execution of such surety bonds, recognizances, undertakings or surety obligations, in pursuance of these presents, shall be as binding upon the Company as if they had been duly signed by the president and attested by the secretary of the Company, in their own proper persons. Provided however, that this power of attorney limits the acts of those named herein; and they have no authority to bind the Company except in the manner stated and to the extent of any limitation stated below:

Any such obligations in the United States, not to exceed Fifty Million and No/100 (\$50,000,000) in any single instance

That this power is made and executed pursuant to the authority of the following Resolutions passed by the Board of Directors of said Company, and said Resolutions remain in full force and effect:

RESOLVED: That the President or any Vice President, in conjunction with any Vice President, be and they hereby are authorized and empowered to appoint Attorneys-in-fact of the Company, in its name and as it acts, to execute and acknowledge for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, waivers of citation and all other writings obligatory in the nature thereof, with power to attach thereto the seal of the Company. Any such writings so executed by such Attorneys-in-fact shall be binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company in their own proper persons.

RESOLVED: That any and all Powers of Attorney and Certified Copies of such Powers of Attorney and certification in respect thereto, granted and executed by the President or Vice President in conjunction with any Vice President of the Company, shall be binding on the Company to the same extent as if all signatures therein were manually affixed, even though one or more of any such signatures thereon may be facsimile. (Adopted October 7, 1981 – The Hanover Insurance Company; Adopted April 14, 1982 – Massachusetts Bay Insurance Company; Adopted September 7, 2001 – Citizens Insurance Company of America and affirmed by each Company on March 24, 2014)

IN WITNESS WHEREOF, THE HANOVER INSURANCE COMPANY, MASSACHUSETTS BAY INSURANCE COMPANY and CITIZENS INSURANCE COMPANY OF AMERICA have caused these presents to be sealed with their respective corporate seals, duly attested by two Vice Presidents, this 12th day of September, 2023



The Hanover Insurance Company
Massachusetts Bay Insurance Company
Citizens Insurance Company of America

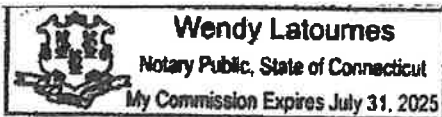
James H. Kawiecki
James H. Kawiecki, Vice President

The Hanover Insurance Company
Massachusetts Bay Insurance Company
Citizens Insurance Company of America

Jocelyn M. Mendoza
Jocelyn M. Mendoza, Vice President

STATE OF CONNECTICUT)
COUNTY OF HARTFORD) ss.

On this 12th day of September, 2023 before me came the above named Executive Vice President and Vice President of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, to me personally known to be the individuals and officers described herein, and acknowledged that the seals affixed to the preceding instrument are the corporate seals of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, respectively, and that the said corporate seals and their signatures as officers were duly affixed and subscribed to said instrument by the authority and direction of said Corporations.



Wendy Latoumes
Wendy Latoumes, Notary Public
My commission expires July 31, 2025

I, the undersigned Vice President of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, hereby certify that the above and foregoing is a full, true and correct copy of the Original Power of Attorney issued by said Companies, and do hereby further certify that the said Powers of Attorney are still in force and effect.

GIVEN under my hand and the seals of said Companies, at Worcester, Massachusetts, this 10th day of October, 2024.

CERTIFIED COPY

The Hanover Insurance Company
Massachusetts Bay Insurance Company
Citizens Insurance Company of America

John Rowedder
John Rowedder, Vice President

IMPORTANT NOTICE

To obtain information or make a complaint:

You may call The Hanover Insurance Company/Citizens Insurance Company of America's toll-free telephone number for information or to make a complaint at:

1-800-608-8141

You may also write to The Hanover Insurance Company/Citizens Insurance Company of America at:

440 Lincoln Street
Worcester, MA 01615

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at:

1-800-252-3439

You may write the Texas Department of Insurance:

P. O. Box 149104
Austin, TX 78714-9104
Fax: (512) 475-1771
Web: <http://www.tdi.texas.gov>
E-mail: ConsumerProtection@tdi.state.tx.us

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim you should contact the agent or the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY: This notice is for information only and does not become a part or condition of the attached document.

AVISO IMPORTANTE

Para obtener informacion o para someter una queja:

Usted puede llamar al numero de telefono gratis de The Hanover Insurance Company/Citizens Insurance Company of America's para informacion o para someter una queja al:

1-800-608-8141

Usted tambien puede escribir a The Hanover Insurance Company/Citizens Insurance Company of America al:

440 Lincoln Street
Worcester, MA 01615

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de companias, coberturas, derechos o quejas al:

1-800-252-3439

Puede escribir al Departamento de Seguros de Texas:

P. O. Box 149104
Austin, TX 78714-9104
Fax: (512) 475-1771
Web: <http://www.tdi.texas.gov>
E-mail: ConsumerProtection@tdi.state.tx.us

DISPUTAS SOBRE PRIMAS O RECLAMOS:

Si tiene una disputa concierne a su prima o a un reclamo, debe comunicarse con el agente o la compania primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI).

UNA ESTE AVISO A SU POLIZA: Este aviso es solo para proposito de informacion y no se convierte en parte o condicion del documento adjunto.

SECTION CI

CERTIFICATE OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

10/1/2025

DATE (MM/DD/YYYY)

10/10/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER LOCKTON COMPANIES, LLC 2100 ROSS AVENUE, SUITE 1400 DALLAS TX 75201 214-720-5563	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A : National Fire Insurance Co of Hartford		20478
INSURER B : The Continental Insurance Company		35289
INSURER C : Transportation Insurance Company		20494
INSURER D : Ascot Insurance Company		23752
INSURER E : Ironshore Specialty Insurance Co		25445
INSURER F :		

INSURED
1515267 Jackson Construction, Ltd
5112 Sun Valley Dr
Fort Worth TX 76119

COVERAGES

CERTIFICATE NUMBER: 18951858


REVISION NUMBER: XXXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER: 0	Y	Y	7034447781	10/1/2024	10/1/2025	EACH OCCURRENCE	\$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000
							MED EXP (Any one person)	\$ 15,000
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
								\$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY	Y	Y	7034434075	10/1/2024	10/1/2025	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
							BODILY INJURY (Per person)	\$ XXXXXXXX
							BODILY INJURY (Per accident)	\$ XXXXXXXX
							PROPERTY DAMAGE (Per accident)	\$ XXXXXXXX
								\$ XXXXXXXX
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB DED: RETENTION \$			7034448610	10/1/2024	10/1/2025	EACH OCCURRENCE	\$ 10,000,000
							AGGREGATE	\$ 10,000,000
								\$ XXXXXXXX
C	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	7034448204	10/1/2024	10/1/2025	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER	
							E.L. EACH ACCIDENT	\$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
D	Contractors Equipment	N	N	IMMA2410001847-02	10/1/2024	10/1/2025	Leased/Rented Equipment:	\$500,000
E	Pollution Liability			ICELLUW00160591	10/1/2024	10/1/2025	Limits:	\$2M Occ./Agg.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
THIS CERTIFICATE SUPERSEDES ALL PREVIOUSLY ISSUED CERTIFICATES FOR THIS HOLDER, APPLICABLE TO THE CARRIERS LISTED AND THE POLICY TERM(S) REFERENCED.
Re: SW ALSBURY BOULEVARD WIDENING - FROM CR 920 TO CANDLER STREET (PHASE 1B) CITY PROJECT NO. ST2302;

CERTIFICATE HOLDER**CANCELLATION**

18951858 City of Burleson 141 W. Renfro Street Burleson TX 76028	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

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SECTION CS

CONSENT OF SURETY COMPANY TO FINAL PAYMENT

SECTION CS
CONSENT OF SURETY COMPANY TO FINAL PAYMENT

Project Name: _____
Project Number: _____
Owner: City of Burleson, Texas
Contractor: _____
Engineer: _____

The Surety Company, on bond of the Contractor listed above for the referenced project, in accordance with the Contract Documents, hereby approves final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to the Owner under the terms of the Contract and as set forth in said Surety Company's bond.

In witness whereof, the Surety Company has hereunto set its hand this _____ day
of _____ 20_____

Surety Company

By _____
Authorized Representative

Title

Address

City State Zip

Attach Power of Attorney

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

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC's Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition). The full EJCDC Construction series of documents is discussed in the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

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

has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

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

1.02 *Terminology*

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

3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance*: After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

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

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

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

2.05 *Initial Acceptance of Schedules*

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

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

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

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
 - 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
 3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.
- B. *Resolving Discrepancies:*
1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

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

3.05 *Reuse of Documents*

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

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

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

4.02 *Starting the Work*

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

4.03 *Reference Points*

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

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

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

5.02 *Use of Site and Other Areas*

- A. *Limitation on Use of Site and Other Areas:*
 - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part

by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

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

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

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

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

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

- c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after

becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

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

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

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

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

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

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

- G. *Additional insureds:* The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance:* If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions:* The policies of insurance required by this Paragraph 6.03 shall:
1. include at least the specific coverages provided in this Article.
 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 - 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 - 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 - 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

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

7.02 *Labor; Working Hours*

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

7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and

guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 "Or Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

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

- O. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

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

7.08 *Permits*

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

7.09 *Taxes*

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

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

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

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
 - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
 - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
 - E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
 - F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or

exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

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

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

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

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to

provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples:*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
 1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
 5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
 6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
 7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.
- E. *Resubmittal Procedures:*
1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
 2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
 3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.

- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop

Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

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

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

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

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

9.02 *Replacement of Engineer*

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

9.03 *Furnish Data*

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

9.04 *Pay When Due*

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

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

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

9.06 *Insurance*

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

9.07 *Change Orders*

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

9.08 *Inspections, Tests, and Approvals*

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

9.09 *Limitations on Owner's Responsibilities*

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

9.10 *Undisclosed Hazardous Environmental Condition*

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

9.11 *Evidence of Financial Arrangements*

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

9.12 *Safety Programs*

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

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

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

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during

or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

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

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

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

10.08 *Limitations on Engineer's Authority and Responsibilities*

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

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

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

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

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

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

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

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

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

ARTICLE 12 – CLAIMS

12.01 *Claims*

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

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

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

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

13.01 *Cost of the Work*

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

thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes

other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

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

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

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

14.01 *Access to Work*

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

14.02 *Tests, Inspections, and Approvals*

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

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

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

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

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

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

14.06 *Owner May Stop the Work*

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

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will

include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

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

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications:*
1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

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

E. *Reductions in Payment by Owner:*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount

remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

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

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

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

15.06 *Final Payment*

- A. *Application for Payment:*
 - 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

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

16.02 *Owner May Terminate for Cause*

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

and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

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

16.03 *Owner May Terminate For Convenience*

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

16.04 *Contractor May Stop Work or Terminate*

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

expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

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

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

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

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

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

18.05 *No Waiver*

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

18.06 *Survival of Obligations*

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

18.07 *Controlling Law*

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

18.08 *Headings*

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

SECTION SC

SUPPLEMENTARY CONDITIONS

SECTION SC

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. C-700, 2013 ed.) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

NUMERICAL DESIGNATIONS OF THE FOLLOWING SECTIONS CORRELATE TO THE AMENDED SECTIONS OF THE GENERAL CONDITIONS.

1.01 DEFINED TERMS

The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract (No. C-700, 2013 ed.) have the meanings assigned to them in the General Conditions unless specifically defined in these Supplementary Conditions.

Working Day – A working day is any calendar day except for the following:

- 1) Saturday or Sunday or any day designated as a holiday by the City of Burleson.
- 2) Any day in which weather or conditions not under control of the CONTRACTOR prevents construction of the work for a period of at least six (6) hours between 8:00 a.m. and 5:00 p.m.

2.05 INITIAL ACCEPTANCE OF SCHEDULES

Delete Paragraph 2.05.A of the General Conditions in its entirety and insert the following in its place:

“The ENGINEER may give final approval to schedules as submitted in accordance with Section 2.03 of the General Conditions or as determined in the Preconstruction Conference without convening a separate conference for that purpose, and will so notify the CONTRACTOR.”

3.01.B INTENT

Add the following language to Paragraph 3.01.B of the General Conditions:

“In the event there are any conflicts between the plans, the specifications or other Contract Documents the priority of interpretation will be as follows: Signed Contract Agreement, bonds, CONTRACTOR’S Proposal, Project Drawings or

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Plans, Supplementary Conditions, General Conditions, Project Specifications, Referenced Specifications.”

4.01.A COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED

Delete Paragraph 4.01.A of the General Conditions in its entirety and insert the following in its place:

“Commencement of Contract Time shall begin on the date indicated in the Notice to Proceed. OWNER may issue a Notice to Proceed at any time suitable to OWNER. The date indicated in the Notice to Proceed will be determined prior to executing the agreement.”

4.03 REFERENCE POINTS

Add Paragraph 4.03.B to the General Conditions to read as follows:

“Project horizontal and vertical control along the line and grade stakes shall be provided once by the OWNER through his Surveyor. The CONTRACTOR shall be responsible for protecting and preserving all stakes thus set, and any additional staking shall be at the CONTRACTOR’S expense. The ENGINEER shall be notified at least 48 hours in advance of the need for construction staking.”

6.01 PERFORMANCE, PAYMENT AND OTHER BONDS

Add the following language at the end of Paragraph 6.01.A of the General Conditions:

“All Bonds shall be in accordance with the provisions of Chapter 2253 of the Texas Government Code, as amended.

Performance and Payments Bonds shall be furnished in favor of the OWNER for one hundred percent (100%) of the Contract Price. A Maintenance Bond shall be furnished in the amount of one hundred percent (100%) of the Contract Price in favor of the OWNER for a period of two (2) years and shall be executed by an approved surety company authorized to do business in the State of Texas.”

6.02 INSURANCE—GENERAL PROVISIONS

Add the following language to the end of Paragraph 6.02.C of the General Conditions:

“CONTRACTOR shall name the City of Burleson as additional insured under CONTRACTOR’S general liability policy. The commercial liability insurance form and policy may be used in lieu of comprehensive general liability form. The limits of liability for the insurance required by the General Conditions shall provide

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coverage for not less than the following amounts or greater where required by laws and regulations.”

6.03 CONTRACTOR’S INSURANCE

Delete Section 6.03 of the General Conditions in its entirety and insert the following in its place:

“A. Contractor shall purchase the following types of insurance with the following limits:

Worker’s Compensation:

- (1) State: Statutory
- (2) Applicable Federal (e.g., Longshoremen’s) Statutory
- (3) Employer’s Liability: \$100,000

Comprehensive General Liability:

- (1) Bodily Injury (including completed operations and products liability):
 - \$500,000 Each Occurrence
 - \$1,000,000 Annual Aggregate
- (2) Property Damage:
 - \$500,000 Each Occurrence
 - \$1,000,000 Annual Aggregate
 - or a combine single limit of \$1,000,000
- (3) Property Damage Liability Insurance will provide Explosion, Collapse and Underground coverage where applicable.
- (4) Personal Injury, with employment exclusion deleted.
 - \$500,000 Annual Aggregate

Comprehensive Automobile Liability:

- (1) Bodily Injury:
 - \$500,000 Each Person
 - \$500,000 Each Occurrence
- (2) Property Damage:

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\$250,000
or combined single limit of

Each Occurrence
\$750,000

“Umbrella” Excess Liability:

\$2,000,000 combined limit, bodily injury and property damage.

B. The contractual liability shall provide coverage for not less than the following amounts:

Bodily Injury:

\$500,000

Each Occurrence

Property Damage:

\$250,000

\$250,000

Each Occurrence

Annual Aggregate

6.05 PROPERTY INSURANCE

Add the following language to the end of Paragraph 6.05.A of the General Conditions:

“OWNER will not obtain Insurance. The contractor must provide insurance covering the losses described in the General Conditions for all work in place and materials on hand when such portions of the work are to be included in an application for payment.”

7.09 TAXES

Add the following language at the end of Paragraph 7.09.A of the General Conditions:

“This contract is issued by an organization which qualifies for sales, excise and use tax exemption pursuant to the provisions of V.T.C.A., Tax Code, Section 151.309 Governmental Entities. CONTRACTOR may purchase all materials and equipment to be incorporated into the finished work by issuing to his supplier an exemption certificate in lieu of the sales tax. However, in accordance with the provisions of 1HB 11, CONTRACTOR must pay sales tax on equipment rental, and materials and supplies which are purchased but not incorporated into the finished project.”

7.18 INDEMNIFICATION

Delete Section 7.18 of the General Conditions and insert the following in its place:

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“CONTRACTOR ASSUMES ENTIRE RESPONSIBILITY AND LIABILITY FOR, AND AGREES TO RELEASE, DEFEND, INDEMNIFY AND HOLD OWNER, OWNER’S AGENTS, EMPLOYEES, REPRESENTATIVES AND INSURERS HARMLESS FROM, ANY AND ALL LIABILITIES, CLAIMS, COSTS, EXPENSES, JUDGMENTS, ATTORNEYS’ FEES, LITIGATION EXPENSES, CAUSES OF ACTION, DEMANDS, LOSSES AND/OR DAMAGES ARISING OUT OF, IN CONNECTION WITH, OR IN ANY WAY INCIDENTAL TO THE PERFORMANCE OF WORK OR SERVICES UNDER THIS CONTRACT BY CONTRACTOR, CONTRACTOR’S EMPLOYEES, AGENTS, REPRESENTATIVES AND INDEPENDENT CONTRACTORS. THIS PROVISION APPLIES WITH FULL FORCE AND EFFECT FOR ANY AND ALL CLAIMS, DEMANDS, ALLEGATIONS OR ACTIONS FOUNDED IN WHOLE OR IN PART FROM THE NEGLIGENCE, GROSS NEGLIGENCE, INTENTIONAL ACTS, OR ALLEGED NEGLIGENCE, GROSS NEGLIGENCE OR INTENTIONAL ACTS, OF OWNER, OWNER’S AGENTS, EMPLOYEES, REPRESENTATIVES, AND INDEPENDENT CONTRACTORS, AS WELL AS CONTRACTOR, CONTRACTOR’S AGENTS, EMPLOYEES, REPRESENTATIVES AND INDEPENDENT CONTRACTORS. THIS INDEMNITY PROVISION IS TO BE CONSTRUED AS BROADLY AS POSSIBLE TO INCLUDE ANY AND ALL LIABILITIES, CLAIMS, COSTS, EXPENSES, JUDGMENTS, CAUSES OF ACTIONS, DEMANDS, LOSSES, AND/OR WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, CAUSES OR ACTION AND DAMAGES SOUNDING IN TORT, PERSONAL INJURIES, CONTRACT DAMAGES, ECONOMIC DAMAGES, STRICT LIABILITY, STRICT PRODUCTS LIABILITY AND PRODUCTS LIABILITY, COMMON LAW NEGLIGENCE AND GROSS NEGLIGENCE, INTENTIONAL TORTS, FEDERAL AND STATE STATUTORY AND COMMON LAW PUNITIVE AND/OR MULTIPLIED DAMAGES, WORKERS’ COMPENSATION CLAIMS, CLAIMS UNDER THE TEXAS TORT CLAIMS ACT, EMPLOYMENT DISPUTES, WRONGFUL DISCHARGE, FEDERAL AND STATE CIVIL RIGHTS CLAIMS, CLAIMS FOUNDED IN CONTRACT OR QUASI-CONTRACT, BREACH OF WARRANTY, CLAIMS UNDER THE TEXAS DECEPTIVE TRADE PRACTICES-COMSUMER PROTECTION ACT, AND ANY AND ALL CLAIMS, CAUSES OF ACTION OR DEMANDS, WHEREBY ANY LOSS IS SOUGHT AND/OR INCURRED AND/OR PAYABLE BY OWNER, OWNER’S AGENTS, EMPLOYEES, REPRESENTATIVES, AND/OR INSURERS. THIS PROVISION IS TO BE CONSTRUED UNDER THE LAWS OF THE STATE OF TEXAS, AND IT IS EXPRESSLY RECOGNIZED BY ALL PARTIES TO THE CONSPICUOUSNESS REQUIREMENT AND THE EXPRESS NEGLIGENCE TEST, AND IS VALID AND ENFORCEABLE AGAINST CONTRACTOR, CONTRACTOR’S AGENTS, EMPLOYEES, REPRESENTATIVES, AND INDEPENDENT CONTRACTORS. CONTRACTOR HAS READ, FULLY UNDERSTANDS, AND AGREES

SECTION SC - SUPPLEMENTARY CONDITIONS

TO BE BOUND BY THE TERMS AND CONDITIONS OF THIS PROVISION AND THE INDIVIDUAL SIGNING THIS CONTRACT ON BEHALF OF CONTRACTOR HAS FULL AUTHORITY TO BIND CONTRACTOR TO THIS CONTRACT AND THIS INDEMNITY PROVISION CONTAINED HEREIN. IT IS FURTHER RECOGNIZED AND AGREED THAT, SHOULD ANY PARTICULAR PORTION OR PROVISION OF THIS INDEMNITY PROVISION BE HELD INVALID, VOID AND/OR UNENFORCEABLE, IT SHALL NOT EFFECT THE VALIDITY AND ENFORCEABILITY OF THE REMAINDER OF THIS PROVISION.

CONTRACTOR AGREES TO MAINTAIN AT CONTRACTOR'S SOLE COST AND EXPENSE, INSURANCE OF ANY AND ALL TYPE AND WITH MINIMUM LIMITS AS FOLLOWS, AND FURNISH CERTIFICATES TO OWNER EVIDENCING SUCH INSURANCE WITH INSURERS ACCEPTABLE TO OWNER:

ALL INSURANCE COVERAGES CARRIED BY THE CONTRACTOR'S, WHETHER OR NOT REQUIRED HEREBY, SHALL EXTEND TO AND PROTECT OWNER, OWNER'S AGENTS, EMPLOYEES, REPRESENTATIVES, AND INDEPENDENT CONTRACTORS, TO THE FULL EXTENT OF SUCH COVERAGES AND CONTRACTOR AGREES TO NAME OWNER AS AN ADDITIONAL INSURED UNDER EACH SUCH INSURANCE COVERAGE. SAID INSURANCE SHALL APPLY TO ANY AND ALL LIABILITY OF THE CONTRACTOR, CONTRACTOR'S AGENTS, REPRESENTATIVES, EMPLOYEES, AND/OR INDEPENDENT CONTRACTORS, ARISING FROM THE INDEMNITY PROVISION IN THIS SECTION.

HOWEVER, LIABILITY OF THE CONTRACTOR, AS PROVIDED IN THIS SECTION SHALL NOT BE LIMITED BY THE INSURANCE COVERAGE REQUIRED OF CONTRACTOR IN THIS PROVISION."

13.03 UNIT PRICE WORK

Add the following Paragraph to Section 13.03 of the General Conditions:

- "F. The unit price of an item of Unit Price Work shall be subject to re-evaluation and adjustment if the total cost of a particular item of Unit Price work amounts to 5% or more of the Contract Price and the variation in the contract price differs by more than 20% from the initial contract prices established on the effective date of the Agreement. CONTRACTOR or OWNER may make a claim for a change in the Contract Price in accordance with Article 11 of the General Conditions if the parties are unable to agree as to the amount of adjustment."

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15.01 PROGRESS PAYMENTS

Revise the beginning of the first sentence of Paragraph 15.01.B.1 of the General Conditions to read as follows:

“At least thirty (20) working days before each progress payment...”

SECTION GR

GENERAL REQUIREMENTS

SECTION GR

GENERAL REQUIREMENTS

1. ABBREVIATIONS

Whenever the abbreviations defined herein occur on the plans, in the specifications, contract, bonds, advertisement, proposal or in any other document or instrument herein contemplated or to which the specifications apply or may apply, the intent and meaning shall be as shown below.

AASHTO	American Association of State Highway and Transportation Officials
Ac.	Acres
ANSI	American National Standards Institute
ASA	American Standards Association
Asph.	Asphalt
ASTM	American Society for Testing and Materials
ATMOS	ATMOS Energy
AT&T	American Telephone & Telegraph Company
Ave.	Avenue
AWS	American Welding Society
AWWA	American Water Works Associations
B/B	Back-of-curb to Back-of-curb
Bldg.	Building
Blvd.	Boulevard
CH	Chord of Curve
CI	Cast Iron
CL	Centerline
CMP	Corrugated Metal Pipe
CO	Cleanout
Conc.	Concrete
Cond.	Conduit
Const.	Construct
Corr.	Corrugated
Cr.	Circle
Ct.	Court
Cu.	Cubic
Culv.	Culvert
CY	Cubic yard
Dia.	Diameter
Dr.	Driveway or Drive
Elev.	Elevation
Esmt.	Easement
Exist. Or EX.	Existing
F	Fahrenheit

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F/F	Face-of-curb to Face-of-curb
FH	Fire Hydrant
FL	Flowline
Ft. or ‘	Foot or Feet
Gal.	Gallon
GV	Gate Valve
Hdwl.	Headwall
HP	Horsepower
Hr.	Hour
ID	Inside Diameter
In. or “	Inch or Inches
L	Length of Curve
Lat.	Lateral
Lb.	Pound
LF	Linear Foot or Feet
Ln	Linear
Ln.	Lane
Max.	Maximum
MH	Manhole
Min.	Minimum
Mono.	Monolithic
NCTCOG	North Central Texas Council of Governments
No.	Number
OD	Outside Diameter
ONCOR	Oncor Electric Delivery
%	Percent
PC	Point of Curvature
PCC	Point of Compound Curvature
PI	Plasticity Index or Point of Intersection
PRC	Point of Reverse Curvature
PSI	Pounds per Square Inch
PT	Point of Tangency
PVC	Polyvinyl Chloride or Point of Vertical Curvature
PVT	Point of Vertical Tangency
R	Radius
RCCP	Reinforced Concrete Cylinder Pipe
RCP	Reinforced Concrete Pipe
Reinf.	Reinforced or Reinforcing
Rem.	Remove
Rep.	Replace
Ret.	Retaining
R/W, R-of-W, or R.O.W.	Right-of-Way
Sani, or San.	Sanitary
Sec.	Second
SD	Storm Drain
SS	Sanitary Sewer

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Sq.	Square
St.	Street or Storm
Sta.	Station
Std.	Standard
SY	Square Yard
T	Tangent Length of Curve
Tr.	Terrace
T.X.D.O.T.	Texas Department of Transportation
UE	Underground Electric Cable
U.C.E.S.	United Cooperative Electric Services
U.P.R.R.	Union Pacific Railroad
UT	Underground Telephone Cable
VC	Vertical Curve
VCP	Vitrified Clay Pipe
Vert.	Vertical
Vol.	Volume
VPI	Vertical Point of Intersection
W.L.	Water Line
Yd.	Yard

2. SUBMITTALS

Within fifteen (15) working days after the CONTRACTOR receives a Notice of Award the CONTRACTOR will submit the following schedules in accordance with Paragraph 2.03 of the General Conditions.

1. An estimated progress schedule showing the estimated starting and completion times, in days, from Notice to Proceed for the major components of the work. Show time for cleanup, testing and inspection on the schedule.
2. If the CONTRACTOR anticipates requesting partial payment for any incomplete lump sum items, submit a schedule showing the values of the various stages of construction for that item. The unit prices in the proposal will serve as the schedule of values used to determine partial payments.
3. Sequence of construction plan details, if they are varying from provided documents.
4. Traffic control plan and details.

3. TESTING

Paving subgrade testing, trench backfill testing and concrete strength testing shall be provided by the OWNER. Pavement coring to verify proper thickness as required by the

SECTION GR - GENERAL REQUIREMENTS

City of Burleson shall be performed by and paid for by the CONTRACTOR. The first test shall be at the OWNER'S expense. Retests due to original test failure shall be at the CONTRACTOR'S expense. All other testing required shall be provided by the CONTRACTOR.

4. UTILITIES

The OWNER will not furnish water for use on this project from the City water system. The CONTRACTOR will be required to use a City water meter and provide a deposit for the meter and pay any costs generated from use. The OWNER will not furnish electric power or any other utility required for performance of the work. CONTRACTOR shall furnish these items and the cost thereof included in the related unit prices for the work.

5. SECURITY

The CONTRACTOR will be responsible for the security of his work and survey staking for his work from the time he is given Notice to Proceed until the OWNER'S final payment and acceptance of the work. Security measures taken by the CONTRACTOR shall not prevent access to the traveling public.

6. DUST CONTROL

It shall be the contractor's continuous responsibility at all times, including nights, holidays, weekends, etc., to maintain the work area relatively free of dust in a manner which will not cause inconvenience to the public. Dust control will be achieved by the application of water by sprinkling in amounts sufficient to control dust.

7. EROSION CONTROL

This item consists of furnishing all labor and materials necessary for the preparation of the Storm Water Pollution Prevention Plan (SWPPP) and installation and maintenance of erosion controls and implementation of the plan. The CONTRACTOR shall be considered the operator with day to day operational control of the construction site and SWPPP per Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR150000. All work shall conform to City standards, NCTCOG Standard Spec. Item 201, "Temporary Erosion, Sedimentation, and Water Pollution Prevention and Control", and TPDES General Permit No. TXR150000.

The CONTRACTOR will be responsible for preparing a SWPPP for all construction site areas in accordance with TPDES General Permit No. TXR150000 requirements. A statement within the SWPPP will identify the CONTRACTOR as the day-to-day operator responsible for the installation, inspection and maintenance of all erosion and sediment control best management practices (BMPs), devices and controls. An additional statement within the SWPPP will identify the OWNER as the operator with control over construction plans and specifications. The CONTRACTOR shall submit a completed notice of intent (NOI) to the State at least 48 hours prior to any construction activity

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beginning. A construction site notice (CSN), signed in accordance with 30 TAC § 305.44, shall be posted at the site and a copy submitted to the City at least 48 hours prior to any construction activity beginning. The CONTRACTOR will be the operator of the ECP and SWPPP and can revise, update, amend or modify as necessary to remain in compliance with the TPDES permit. This item includes the installation, inspection and maintenance of BMP's, devices and controls as detailed in the latest edition of NCTCOG's Design Manual for Construction, or other necessary controls as may be required to remain in compliance with the TPDES General Permit No. TXR150000.

Measure and Payment for this item shall be made per the lump sum price bid for erosion control and SWPPP implementation for the limits of construction shown in the plans and shall be full payment for all materials, labor, equipment and other incidentals necessary to install and maintain the erosion controls complete and in place and fully comply with the SWPPP and the TPDES General Permit No. TXR150000. The costs of maintenance or any additional erosion controls above and beyond those described in the SWPPP and ECP necessary to maintain compliance with the TPDES permit are subsidiary to this pay item. The CONTRACTOR shall be responsible for conducting inspections of BMPs, devices and controls as prescribed in the SWPPP and in accordance with TPDES General Permit No. TXR150000.

The CONTRACTOR must revise or update the SWPPP whenever: 1) there is a change in design, construction, operation, or maintenance that has a significant effect on the discharge or pollutants and that has not been previously addressed in the SWPPP; or 2) results of inspections or investigations by site operators, CITY, TCEQ personnel, or a federal, state or qualified local agency indicate the SWPPP is proving ineffective in sediment control.

The CONTRACTOR shall take all precautions required to prevent soil erosion during the construction. If excessive erosion occurs, the CONTRACTOR shall take immediate measures to prevent further erosion and correct the damages at cost to the CONTRACTOR. The CONTRACTOR shall comply with the requirements of the SWPPP and the final TPDES Construction General Permits Regulations.

The CONTRACTOR shall be responsible for the removal of all temporary BMPs, devices and controls used during the construction process to prevent erosion or sedimentation. All temporary BMPs, devices and controls shall be removed, and any disturbed areas stabilized, prior to a notice of termination (NOT) being submitted to the State for the construction project. A copy of the CONTRACTOR'S NOT shall be submitted to the OWNER 48 hours prior to submittal of the NOT to the State.

8. DRAINAGE

It shall be the CONTRACTOR'S responsibility to maintain adequate temporary surface drainage during construction so as to prevent flooding and nuisance ponding. Where surface drainage channels are disturbed or blocked during construction, they shall be

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restored to their original conditions of grade and cross section after the work of construction is completed.

The CONTRACTOR'S attention is directed to the Code of Federal regulations (CFR) Section 33, Parts 320 through 330 concerning General Regulation Policy of the Corps of Engineers concerning "waters of the United States". The CONTRACTOR shall avoid releasing excavated or dredged materials, construct coffer dams, or perform the work in a manner which shall violate the applicable CFR regarding 404 Permits such that an additional or separate 404 Permit is required on this project. The cost for any special improvements, or damages assessed by the Corps of Engineers due to the negligent acts of the CONTRACTOR, may be deducted from payments due to the CONTRACTOR by the OWNER.

9. INGRESS AND EGRESS

The CONTRACTOR shall do his utmost to provide ingress and egress to all existing streets and private driveways at all times. Ingress and egress shall be provided, without fail, to adjacent properties when construction is not in progress.

10. TRAFFIC CONTROL

As necessary, the CONTRACTOR shall be responsible for providing traffic control plans and implementation during the construction of this project consistent with the provisions set forth in the latest publication of the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways", issued under the authority of the "State of Texas Uniform Act Regulating Traffic on Highways", codified as Article 6701d, Vernon's Civil Statutes, pertinent sections being Section No.'s 27, 29, 30 and 31.

The CONTRACTOR shall prepare a Traffic Control Plan with details for each segment or stage of construction which requires re-routing or different controls of traffic. The Traffic Control Plan shall be drawn at a scale not less than 1"=200' unless approved by the City Engineer and such that it is legible and shall include proposed street closings, detours/temporary pavement, barricade placements, and sign placement, including advance warning signs, and pavement markings if necessary. The Contractor shall furnish and erect suitable barricades, signs, and appropriate pavement markings to protect motorists and pedestrians, as set forth in the latest edition of the TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. The barricades, signs, and pavement markings shall be constructed, placed and adequately maintained as set forth in the Traffic Control Plan or as directed by the engineer or his/her authorized representative. Two-way traffic shall be maintained on all roadways under construction at all times unless the closure is specifically approved and acknowledged in writing by the City Engineer. If it becomes necessary to detour traffic off the existing paved roadway for more than seven days, a temporary asphalt surface (4" HMAC Type D and 6" Crushed Stone Base) shall be constructed and maintained by the contractor throughout the duration of the detour. The Traffic Control Plan will be prepared and submitted to the City Engineer prior to the pre-construction Conference.

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The CONTRACTOR will remove any regulatory sign, instructional sign, street name sign or other sign which is within limits of construction and replace the permanent sign with a temporary sign meeting the requirements of the above-referenced manual and such temporary sign must be installed prior to the removal of the permanent sign. If the temporary sign is not installed correctly or if it does not meet the required specifications, the permanent sign shall be left in place until the temporary sign requirements are met. Permanent signs may be reused during construction provided that the signs meet the above referenced sign requirements. When construction work is completed to the extent that the permanent sign can be reinstalled the CONTRACTOR shall again contact the City of Burleson. City forces shall install new permanent signs and CONTRACTOR shall leave the temporary sign in place until such reinstallation is completed.

11. TRENCH AND SUBSURFACE CONSTRUCTION

The CONTRACTOR'S attention is directed to Federal Laws contained in the Occupational Safety and Health Act of 1970 and the standards and regulations issued thereunder. The CONTRACTOR is directed to comply with these and all other applicable federal, state and local laws. It is the CONTRACTOR'S responsibility to instruct his workmen in the proper safety standards and monitor his activities to ensure compliance.

Where required, the CONTRACTOR shall provide a trench safety plan which specifically addresses and identifies the trenches to be made on this project and provides the trenching details to provide a safe work place in accordance with state law and OSHA regulations. The trench safety plan shall bear the seal and signature of a registered professional engineer licensed in the state of this project with experience in preparation of trench safety systems. The plan shall include all soils investigation and test data used by the engineer in developing the plan. The CONTRACTOR shall conduct his trenching operations in accordance with this plan. The CONTRACTOR shall be responsible for daily inspection and report documentation of trench conditions and shall provide copies of reports to the ENGINEER as requested. All costs for implementation of the trench safety plan should be included in the bid item for trench safety.

12. INSPECTION

The CONTRACTOR shall notify the City of Burleson 24 hours prior to beginning construction and shall keep their inspectors informed as to the daily schedule for performance of the work. The inspectors will be available to inspect the work on any working day from 8:00 a.m. to 5:00 p.m. The CONTRACTOR will not perform work that requires inspection at any other times unless he has made prior arrangements with the City of Burleson.

SECTION GR - GENERAL REQUIREMENTS

13. TREES AND SHRUBS

The CONTRACTOR shall not remove any trees or shrubs unless such removal is called for in the plans or written authorization is received from the OWNER. Trees shall not be pruned without permission from the OWNER. Any trees or other landscape features shall be restored or replaced at the CONTRACTOR'S expense. Trimming or pruning to facilitate the work will be permitted only by experienced workmen in an approved manner. Pruned limbs of one-inch (1") diameter or larger shall be thoroughly treated as soon as possible with a tree wound dressing.

14. FILL REQUIREMENTS

All earth fill should be placed in loose lifts not exceeding twelve inches (12") in uncompacted thickness at a moisture content of optimum or above. Each lift should be compacted to between 95 and 100 percent (95-100%) maximum as determined in the Standard Proctor Compaction Test (ASTM D-698). Each lift should be compacted, tested, and approved by City Inspector before another lift is added. The fill should be placed in layers beginning at the low side in part-width layers and increasing the widths as the fill is raised. The layers should be parallel to the finish grade. Proper drainage must be maintained to prevent ponding water.

15. GRASS WORK

All areas disturbed during construction will be sodded or seeded.

The CONTRACTOR shall maintain seeded areas until the grass has an established minimum height of two inches over 85 percent (85%) of the disturbed area.

17. EXCESS EXCAVATION MATERIALS

Excess excavation materials from the project shall be disposed offsite by the CONTRACTOR. Materials unacceptable as fill material, such as large rocks, trees, asphalt, concrete, drainage facilities and any other construction debris shall be removed from this site and disposed in accordance with City, State and Federal guidelines at an approved location. There will be no separate pay for this work.

18. SUBSIDIARY WORK

Any and all work specifically governed by documentary requirements for the project, such as conditions imposed by the Plans, the General Contract Documents or these Special Documents, in which no specific items for bid has been provided for in the Proposal, shall be considered as a subsidiary item of work, the cost of which shall be included in the price bid in the Proposal, for each bid item.

SECTION GR - GENERAL REQUIREMENTS

19. TECHNICAL SPECIFICATIONS

Materials and Method of Construction for all items to be constructed under this contract shall be in conformance with Division 200 through Division 800 of the Standard Specifications for Public Works Construction (5th Edition), North Central Texas, published by the NCTCOG and 2014 TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges. The standard specifications are included in the Contract Documents by reference. Copies of these specifications are not supplied to the CONTRACTOR. The CONTRACTOR can obtain copies of the NCTCOG specifications from the North Central Texas Council of Governments, P.O. Box Drawer COG, Arlington, Texas 76005-5888, (817) 640-3300 and copies of the TxDOT specification from

<https://www.txdot.gov/business/resources/txdot-specifications.html>.

20. CLEANUP

During construction the CONTRACTOR shall at all times keep the jobsite free from waste, debris and rubbish and shall maintain a daily routine of cleanup. All trees, stumps, slashings, brush or other debris to be removed from the site shall be disposed of in such a manner approved by the ENGINEER. Onsite burning of trees and/or trash, etc., will not be permitted. Upon completion of the work as a whole and prior to final acceptance the CONTRACTOR shall clean and remove from the site all surplus and discarded materials, temporary structures and all debris. He shall leave the site in a neat and orderly condition.

21. CLARIFICATION OF BID ITEMS

As listed in the Proposal, construction pay items shall be measured and paid for in accordance with the applicable measurement and payment paragraphs of the NCTCOG specifications, unless modified by these Specifications. As a matter of convenience applicable sections of NCTCOG specifications or TxDOT specifications have been referenced for each Pay Item where applicable. However, where applicable, all portions of the NCTCOG Specifications shall govern this project and shall be referenced as required to properly construct each item of work. Each pay item includes all labor, materials, equipment and incidentals necessary to construct that item.

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SECTION A – GENERAL IMPROVEMENTS

BID ITEM NO. A-1: Mobilization and Demobilization (Maximum 5% of Total Bid)

This pay item shall consist of mobilization and demobilization for the construction of the project. The project shall be constructed in phases as shown in the plans. This pay item shall be inclusive of any and all mobilizations and demobilizations associated with the project. Mobilization shall be defined as all necessary equipment, supplies, materials and personnel on the job site ready to begin construction. The cost of all bonds and insurance for the project will also be considered part of this specification. Mobilization will be measured as a lump sum item. Note: The total amount bid for Mobilization & Demobilization shall not exceed five percent (5%) of the total contract amount, exclusive of this pay item (adjusted contract amount).

Measurement and Payment shall be as follows: Ten percent (10%) of the amount bid shall be paid with the first pay estimate. On all subsequent pay estimates, measurement and payment shall be prorated on the basis of the value of the adjusted contract amount completed, plus the initial 10%. Prorated payment shall be as follows: When 1% of the adjusted contract amount has been earned, 50% of lump sum bid for mobilization, less retainage, will be paid. When 5% of the adjusted contract amount has been earned, 75% of the lump sum bid for mobilization, less retainage, will be paid. When 10% of the adjusted contract amount has been earned, 90% of the lump sum bid for mobilization, less retainage, will be paid. Payment for the remaining 10% of the lump sum bid for mobilization, less retainage, will be paid on the next monthly estimate following the 90% payment. Payment shall be total compensation for furnishing all labor, materials, tools, and equipment necessary to complete the work. Work shall be in accordance with TxDOT Item 500.

BID ITEM NO. A-2: Right-of-Way Preparation

This pay item shall consist of the preparation of the right-of-way for construction as required by the plans and specifications. It will include the area between the right-of-way limits, additional areas beyond the right-of-way such as temporary construction, slope, and drainage easements, and any other easements shown on the plans. Work shall be in accordance with TxDOT Item 100 and shall include, but not be limited to: all obstructions above ground or below such as trees, shrubs, stumps, brush, roots, vegetation, logs, trash concrete, asphalt, fences, structures, foundations, lumber, scrap metal, abandoned appliances, sprinkler systems, abandoned utility pipes or conduits and any other items not included as pay items elsewhere in the contract documents, or identified in TxDOT Item 100, but necessary for the preparation of the rights-of-way and/or permanent or temporary easements for construction. Burning of trees will not be allowed as a means for disposing of trees. The maintenance/relocation of street signs, mail boxes shall be considered as part of this item. This item shall also include the protection of any trees, shrubs, fences, structures, signs or other items that are to be preserved and/or relocated as shown on the plans. All trees designated to be preserved shall be protected by fencing to the limits of the canopy and no parking, driving or moving of equipment in this area will be permitted. If pruning of protected trees is required, they shall be trimmed as directed by the Engineer and any cuts of two inches or more in diameter shall be treated as directed by the Engineer. All material and debris removed as described above shall become the property of the Contractor and shall be disposed of at contractor's expense in a manner satisfactory to the Engineer and other items identified in TxDOT Item 100. All items relocated or replaced shall be in a condition equal to or better than the original condition. The Contractor shall videotape and/or photograph the right-of-way prior to construction.

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Payment shall be made on the basis of the price bid per lump sum (LS). Payment shall be total compensation for providing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work. If this pay item exceeds 10% of the total project cost, exclusive of this pay item, then any amount over the 10% will not be paid until the final payment.

BID ITEM NO. A-3: Barricades, Signs and Traffic Handling

The work performed under this item shall be completed in accordance with TxDOT Item 502, "Barricades, Signs and Traffic Handling".

Modification to TxDOT Item 502: The traffic control plan shall be provided by the contractor and developed by a licensed engineer.

The Contractor shall provide barricades and signs as per the Traffic Control Plan and as per guidelines in the "Texas Manual on Uniform Traffic Control Devices", latest Revision.

Removal of existing and temporary pavement and pavement markings shall be subsidiary to this bid item. All existing signs, barricades, etc. removed or disturbed during construction shall be placed back in equal or better shape as directed by the engineer.

Modification to TxDOT Item 502.3 & 502.4: Measurement and payment for this Bid Item shall be made per month (MO) basis for preparation of a detailed traffic control and work phasing plan, implementing the plan, and furnishing all labor, materials, supplies, equipment and incidentals necessary to complete the work as specified.

BID ITEM NO. A-4: SWPPP Plan and Implementation

This item consists of furnishing all labor and materials necessary for the installation and maintenance of erosion controls and implementation of the Storm Water Pollution Prevention Plan (SWPPP). The CONTRACTOR shall be considered the operator with day to day operational control of the construction site and SWPPP per Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR150000. All work shall conform to City standards, TxDOT Item 506, "Temporary Erosion, Sedimentation, and Environmental Controls", and TPDES General Permit No. TXR150000.

The CONTRACTOR will be responsible for preparing a SWPPP for all construction site areas in accordance with TPDES General Permit No. TXR150000 requirements. A statement within the SWPPP will identify the CONTRACTOR as the day-to-day operator responsible for the installation, inspection and maintenance of all erosion and sediment control best management practices (BMPs), devices and controls. An additional statement within the SWPPP will identify the CITY as the operator with control over construction plans and specifications. The CONTRACTOR shall submit a completed notice of intent (NOI) to the State at least 48 hours prior to any construction activity beginning. A construction site notice (CSN), signed in accordance with 30 TAC § 305.44, shall be posted at the site and a copy submitted to the City at least 48 hours prior to any construction activity beginning. The CONTRACTOR will be the operator of the ECP and SWPPP and can revise, update, amend or modify as necessary to remain in compliance with the TPDES permit. This item includes the installation, inspection and maintenance of BMP's, devices and controls as detailed in the latest addition of TxDOT's Hydraulic Design Manual, March 2009, or other necessary controls as may be required to remain in compliance with the TPDES General Permit No. TXR150000.

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Measure and Payment for this item shall be made per the lump sum (LS) price bid for erosion control and SWPPP implementation for the limits of construction shown in the plans and shall be full payment for all materials, labor, equipment and other incidentals necessary to install and maintain the erosion controls complete and in place and fully comply with the SWPPP and the TPDES General Permit No. TXR150000. The costs of maintenance or any additional erosion controls above and beyond those described in the SWPPP and ECP necessary to maintain compliance with the TPDES permit are subsidiary to this pay item. The CONTRACTOR shall be responsible for conducting inspections of BMPs, devices and controls as prescribed in the SWPPP and in accordance with TPDES General Permit No. TXR150000.

The CONTRACTOR must revise or update the SWPPP whenever: 1) there is a change in design, construction, operation, or maintenance that has a significant effect on the discharge or pollutants and that has not been previously addressed in the SWPPP; or 2) results of inspections or investigations by site operators, CITY, TCEQ personnel, or a federal, state or qualified local agency indicate the SWPPP or ECP is proving ineffective in sediment control.

The CONTRACTOR shall take all precautions required to prevent soil erosion during the construction. If excessive erosion occurs, the CONTRACTOR shall take immediate measures to prevent further erosion and correct the damages. The CONTRACTOR shall comply with the requirements of the SWPPP and the final TPDES Construction General Permits Regulations.

The CONTRACTOR shall be responsible for the removal of all temporary BMPs, devices and controls used during the construction process to prevent erosion or sedimentation. All temporary BMPs, devices and controls shall be removed, and any disturbed areas stabilized, prior to a notice of termination (NOT) being submitted to the State for the construction project. A copy of the CONTRACTOR'S NOT shall be submitted to the CITY 48 hours prior to submittal of the NOT to the State.

BID ITEM NO. A-5: Remove Existing Drainage Culverts, Including Headwalls (Various Sizes)

This item governs the removal of existing pipe as designated on the plans. All work shall be performed per NCTCOG Item 701.2 "Structural Removal, Excavation, and Backfill".

Measurement and payment shall be made at the unit price bid per linear foot (LF) and shall be full compensation for all labor, materials, equipment, tools, and incidentals necessary to complete the removal of existing pipes and associated headwalls.

Payment for removal shall also include work associated with the hauling and satisfactory disposal of the pipe and other materials off the site.

BID ITEM NO. A-6: Remove Existing Drop Inlet

This item governs the removal of existing drop inlet as designated on the plans. All work shall be performed per NCTCOG Item 701.2 "Structural Removal, Excavation, and Backfill".

Measurement and payment shall be made at the unit price bid per each (EA) and shall be full compensation for all labor, materials, equipment, tools, and incidentals necessary to complete the removal.

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Payment for removal shall also include work associated with the hauling and satisfactory disposal of the drop inlets and other materials off the site.

BID ITEM NO. A-7: Remove Existing Concrete Pavement

This item shall include removal of existing concrete pavement as designated on the plans.

Measurement and payment shall be made at the unit price bid per square yard (SY) and shall be full compensation for all labor, materials, equipment, tools, and incidentals necessary to complete the removal.

Removal shall be made to an existing joint or to a saw-cut line. No separate payment will be made for saw cutting. Payment for removal shall also include work associated with the hauling and satisfactory disposal of the concrete and other materials off the site.

BID ITEM NO. A-8: Remove Existing Concrete Sidewalk

This item shall include removal of existing concrete sidewalk as designated on the plans.

Measurement and payment shall be made at the unit price bid per square yard (SY) and shall be full compensation for all labor, materials, equipment, tools, and incidentals necessary to complete the removal.

Removal shall be made to an existing joint or to a saw-cut line. No separate payment will be made for saw cutting. Payment for removal shall also include work associated with the hauling and satisfactory disposal of the concrete and other materials off the site.

BID ITEM NO. A-9: Remove Existing Concrete Sidewalk Bridge

This item shall include removal of existing concrete sidewalk bridge as designated on the plans.

Measurement and payment shall be made at the unit price bid per each (EA) and shall be full compensation for all labor, materials, equipment, tools, and incidentals necessary to complete the removal.

Removal shall be made to an existing joint or to a saw-cut line. No separate payment will be made for saw cutting. Payment for removal shall also include work associated with the hauling and satisfactory disposal of the concrete and other materials off the site.

BID ITEM NO. A-10: Remove Concrete Header and Asphalt Joint at Railroad

This item shall include removal of existing concrete header and asphalt joint at the BNSF railroad as designated on the plans.

Measurement and payment shall be made at the unit price bid linear foot (LF) and shall be full compensation for all labor, materials, equipment, tools, and incidentals necessary to complete the removal.

Removal shall be made to an existing joint or to a saw-cut line. No separate payment will be made for saw cutting. Payment for removal shall also include work associated with the hauling and satisfactory disposal of the concrete and other materials off the site.

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BID ITEM NO. A-11: Remove Existing Concrete Curb and Gutter

This item shall include removal of existing concrete curb and gutter as designated on the plans.

Measurement and payment shall be made at the unit price bid per linear foot (LF) and shall be full compensation for all labor, materials, equipment, tools, and incidentals necessary to complete the removal.

Removal shall be made to an existing joint or to a saw-cut line. No separate payment will be made for saw cutting. Payment for removal shall also include work associated with the hauling and satisfactory disposal of the concrete and other materials off the site.

BID ITEM NO. A-12: Remove Existing PVC Underdrain and Cleanout at Bioretention Basin

This item governs the removal of existing pipe as designated on the plans.

Measurement and payment shall be made on the basis of a lump sum (LS) and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work.

Payment for removal shall also include work associated with the hauling and satisfactory disposal of the materials off the site.

BID ITEM NO. A-13: Unclassified Excavation (Roadway)

All work associated with excavating for the proposed improvements shall be in accordance with NCTCOG Item 203.2 "Unclassified Excavation". This item does not include concrete or asphalt pavement removal.

Measurement shall be as determined on the basis of the natural ground cross-section and the finished lines and grades as shown in the plans and computed by the method of average end areas from the project cross-section and project grading plan. Shrinkage or swelling factors will not be considered in determining the calculated quantities.

Measurement and Payment shall be made on the basis of price bid per cubic yard (CY) and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work. This is a "plans quantity" measurement item and the quantity to be paid for will be that quantity shown in the proposal.

BID ITEM NO. A-14: Borrow

Borrow materials shall be acquired per the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 203.4 "Borrow and Spoil".

Measurement and Payment shall be made on the basis of price bid per cubic yard (CY) and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work. Borrow shall consist of required excavation, removal, and proper utilization of materials obtained from designated or approved off-site

SECTION GR - GENERAL REQUIREMENTS

sources. This is a "plans quantity" measurement item and the quantity to be paid for will be that quantity shown in the proposal.

BID ITEM NO. A-15: Solid Block Sodding (Bermuda), Including Fertilizer and Water

This item governs the placement of bermuda solid block sod at locations specified by the construction plans or as directed by Owner and in accordance with the NCTCOG Item 204.5 "Sodding". Contractor shall remove all roots, debris, and rocks larger than 1½". Grades shall be uniform, with even cross sections to prevent ponding or uneven grades. Contractor shall be responsible for watering areas of solid block sodding and rolling the sod to maximize ground contact and appearance. Subsequent watering shall continue until firm rooting of the sod to the ground has occurred as defined by City Inspector.

The CONTRACTOR shall maintain sodded areas until the grass has an established minimum height of two inches over 85 percent (85%) of the disturbed area.

Sodded areas shall be fertilized with a 16-8-8 (N-P-K) meeting the requirements of the NCTCOG specifications. Application rate of fertilizer shall be as recommended by manufacturer of fertilizer.

Measurement and payment shall be at the bid unit price per square yard (SY) of solid block sodding placed. The price shall be full compensation for furnishing all materials, labor, tools, equipment, water and incidentals necessary to complete the work.

BID ITEM NO. A-16: Hydromulch Seeding, Including Fertilizer and Water

This item consists of providing a uniform seeding shall be seeded in accordance with TxDOT Item 164 for the areas shown in the plans and all areas where trees are being removed. Contractor shall remove all roots, debris, and rocks larger than 1½". Grades shall be uniform, with even cross sections to prevent ponding or uneven grades. Contractor shall be responsible for watering areas of seeding. Subsequent watering shall continue until grass is established as defined by Inspector. Seeding and fertilizing shall be done in accordance with TxDOT Item 166. Seeding areas shall be fertilized with a 16-8-8 (N-P-K). Application rate of fertilizer shall be as recommended by manufacturer of fertilizer. The Contractor shall maintain seeded areas until the grass has an established minimum height of two inches over 85 percent (85%) of the disturbed area.

Payment will be made at the unit price bid per square yard (SY) and shall be full compensation for all labor, materials, equipment, tools, fertilizer, watering and incidentals necessary to install item complete in place and be in accordance with TxDOT Item 164.

BID ITEM NO. A-17: 4" Topsoil

This item consists of providing a uniform 4" topsoil layer as designated by the ENGINEER. Topsoil shall be placed in accordance with NCTCOG Item 202.2 "Topsoil". "Topsoil" must be approved as "Topsoil" prior to use by CITY. Native Soil will only be used if pre-approved, otherwise it will be Imported Topsoil as described.

Topsoil shall consist of friable surface soil reasonably free of grass, roots, weeds, sticks, stones, or other foreign materials. The topsoil shall consist of sandy loam, with soil particles within the following percentages: clay; 0-25; silt; 25-50; sand; 50-70; decomposed organic matter; 5-10.

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The clay content is optional. The soil shall have a soil acidity range between a pH 5.0 to pH 7.0. The soil salinity shall not exceed 3 millimhos per centimeter at 25oC (as described by USDA Circular No. 982).

Payment will be made at the unit price bid per square yard (SY) and shall be full compensation for all labor, materials, equipment, tools, and incidentals necessary to install item complete in place and be in accordance with NCTCOG Item 202.2.4.

BID ITEM NO. A-18: Railroad Requirements (Flagman and Training)

The work performed under this item shall be completed in accordance with "SECTION REF 2 - BNSF Railway Construction Agreement" and "SECTION REF 3 - BNSF Railway Contractor Requirements" in these specifications. This pay item includes all contractor coordination with BNSF and all items required by BNSF as stated in Appendix B.

Measurement and payment shall be made on the basis of a lump sum (LS) and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work.

SECTION B – ROADWAY IMPROVEMENTS

BID ITEM NO. B-1: 8" Lime Stabilized Subgrade

Lime Stabilized Subgrade shall be installed at the rate and limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 301.2 "Lime Treatment".

Measurement and payment shall be on the basis of the price bid per square yard (SY) of completed and measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work.

BID ITEM NO. B-2: Hydrated Lime (42 LBS/SY)

Hydrated Lime shall be installed at the rate and limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 301.2 "Lime Treatment".

Measurement and payment shall be on the basis of the price bid per ton (TON) of completed and measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work.

BID ITEM NO. B-3: 8" Reinforced Concrete Pavement

Payment for construction of reinforced concrete pavement shall be made at the unit price bid per each (SY) and shall be full compensation for all labor, materials, equipment, tools, and incidentals necessary to install item complete in place and be in accordance with TxDOT Item 360. Concrete street headers shall be installed per plan details and shall be considered subsidiary to this bid item. Concrete pavement shall be class 'C' concrete with a minimum compressive strength of 3,600 psi at 28 days.

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BID ITEM NO. B-4 to B-5: 7" Monolithic Concrete Curb and 7" Concrete Curb and Gutter

Monolithic Concrete Curb shall be installed at the height and limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 305.1 "Concrete Curb and Gutter".

Measurement and payment shall be on the basis of the price bid per linear foot (LF) of completed and measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work.

BID ITEM NO. B-6: Concrete Curb Opening

Concrete Curb Opening shall be installed to the thickness lines and limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 702 "Concrete Structures".

Measurement and payment shall be on the basis of the price bid per each (EA) of completed and measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work. Compaction of existing subgrade shall be considered subsidiary to this item.

BID ITEM NO. B-7: 6" Concrete Driveway

Concrete Driveway shall be installed to the thickness lines and limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 305.2 "Concrete Sidewalks, Driveway Approaches, and Barrier Free Ramps".

Measurement and payment shall be on the basis of the price bid per square yard (SY) of completed and accepted driveway measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work. Compaction of existing subgrade shall be considered subsidiary to this item.

BID ITEM NO. B-8: 6" Flexible Base Driveway

Flexible Base Driveway shall be installed to the thickness lines and limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 301.5 "Flexible Subbase or Base (Crushed Stone/Concrete)".

Measurement and payment shall be on the basis of the price bid per square yard (SY) of completed and accepted driveway measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work. Compaction of existing subgrade shall be considered subsidiary to this item.

BID ITEM NO. B-9: 5" Concrete Sidewalk

Concrete sidewalks shall be installed to the thickness lines and limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 305.2 "Concrete Sidewalks, Driveway Approaches, and Barrier Free Ramps".

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Measurement and payment shall be on the basis of the price bid per square yard (SY) of completed and accepted sidewalk measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work. Compaction of existing subgrade shall be considered subsidiary to this item.

BID ITEM NO. B-10: Curb at Back of Sidewalk

Curb at the back of sidewalk shall be installed to the limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 305.1 "Concrete Curb and Gutter" and NCTCOG Item 305.2 "Concrete Sidewalks, Driveway Approaches, and Barrier Free Ramps".

Measurement and payment shall be on the basis of the price bid per linear foot (LF) of completed and measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work.

BID ITEM NO. B-11: Concrete Sidewalk Bridge

Concrete sidewalk bridges shall be installed to the limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 305.2 "Concrete Structures".

Measurement and payment shall be on the basis of the price bid per each (EA) of completed and measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work. Compaction of existing subgrade shall be considered subsidiary to this item.

BID ITEM NO. B-12: ADA Curb Ramp

This item governs the installation of curb ramps as specified by the construction plans and in accordance with the NCTCOG Item 305.2 "Concrete Sidewalks, Driveway Approaches, and Barrier Free Ramps".

Measurement and payment shall be on the basis of the price bid per each (EA) of completed and accepted curb ramp measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete this pay item.

BID ITEM NO. B-13: Concrete Header at Railroad Crossing

Concrete Header at Railroad Crossing shall be installed to the limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 305.4 "Reinforced Concrete Headers".

Measurement and payment shall be on the basis of the price bid per linear foot (LF) of completed and measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work.

BID ITEM NO. B-14: Asphalt Joint at Railroad Crossing

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Asphalt Joint at Railroad Crossing shall be installed to the limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 302.9 "Hot-Mix Asphalt Pavement".

Measurement and payment shall be on the basis of the price bid per linear foot (LF) of completed and measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work.

SECTION C – DRAINAGE IMPROVEMENTS

BID ITEM NO. C-1: 24" Reinforced Concrete Pipe (Class III)

All work associated with providing reinforced concrete pipe for drainage shall be in accordance with NCTCOG Item 501.6 and item 508. All RCP storm drain shall be ASTM C76 Class III unless otherwise noted. Provide cold applied preformed joint sealant that meets the requirements of ASTM C990. Backfill and embedment shall be per City of Burleson Material Testing Policies, City of Burleson Standard Construction Details, and/or plan details. All bends shall be pre-fabricated. Where leads or pipe terminate into an existing system, a concrete collar shall be poured at the junction to form a watertight connection in accordance with the plan details.

Measurement and payment shall be at the unit price bid per linear foot (LF) of reinforced concrete pipe complete in place of the size and class specified. Payment shall be full compensation for furnishing and transporting the pipe; for preparation and shaping of beds; for placing and jointing of pipe; for fittings; for end finish; for providing and installing concrete collars; plugs; connections to existing and new structures; and for all labor, material, equipment and incidentals necessary to complete the pipe in place in accordance with the Contract Documents. Payment for pipe will include trench excavation, bedding material, embedment and backfill.

BID ITEM NO. C-2 to C-4: Recessed Curb Inlet

Recessed Curb Inlet shall be installed to the thickness lines and limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 702 "Concrete Structures".

Measurement and payment shall be on the basis of the price bid per each (EA) of completed and measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work.

BID ITEM NO. C-5: 4'x4' Storm Drain Manhole

Concrete Manholes shall be installed to the thickness lines and limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 502.1 "Manholes".

Measurement and payment shall be on the basis of the price bid per each (EA) of completed and measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work.

SECTION GR - GENERAL REQUIREMENTS

BID ITEM NO. C-6: Adjust Existing Storm Drain Manhole to Proposed Grade

Existing concrete manholes shall be adjusted to the proposed grade based on plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 502.1 "Manholes".

Measurement and payment shall be on the basis of the price bid per each (EA) of completed and measured in its final position, and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work.

BID ITEM NO. C-7: 4" Concrete Riprap

This item governs the installation of protection concrete riprap as specified by the construction plans and in accordance with the NCTCOG Item 803.3 "Riprap".

Measurement and payment shall be on the basis of the price bid per square yard (SY) and shall be full compensation for furnishing and installing concrete riprap, bedding material, and filter fabric, labor, materials, and equipment deemed necessary to complete this pay item.

BID ITEM NO. C-8: Trench Excavation Protection

Trench Excavation Protection shall be installed to the thickness lines and limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 107.20.3 "Trench Safety".

Measurement and payment shall be on the basis of the price bid per linear foot (LF), and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work. Trench safety requirements are mandatory and shall not be waived. Excavation for slope-back methods shall be subsidiary to the trench safety pay item including replacement and re-compaction. Excess excavation for other trench safety methods is also subsidiary to the trench safety pay item. Costs relating to the preparation of the trench safety plan including geotechnical investigation, testing and report preparation fees are all subsidiary to the pay item for trench safety.

SECTION D – SIGNING AND PAVEMENT MARKING IMPROVEMENTS

BID ITEM NO. D-1: Remove and Relocate Existing Small Sign Assembly

This pay item shall consist of the removal, washing/cleaning, and relocation of the existing roadside sign and furnishing of posts and necessary materials for constructing concrete foundation. The sign assembly shall be in compliance with the TxDOT Specifications Item 644.

Measurement and payment shall be made on the basis of price bid per each (EA) and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work.

BID ITEM NO. D-2: Remove Sign Assembly

This item shall include removal of existing sign assembly (including concrete foundation) as designated on the plans.

SECTION GR - GENERAL REQUIREMENTS

Payment for removal shall also include work associated with the hauling and satisfactory disposal of the materials off the site.

Measurement and payment shall be made on the basis of price bid per each (EA) and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work.

BID ITEM NO. D-3: Small Sign Assembly

This pay item shall consist of the furnishing, fabrication, galvanizing and erection of supports; for constructing concrete foundations; for furnishing complete signs including sign connections and all hardware; for attaching the signs to the supports; and for washing and cleaning the signs. Signs shall be Aluminum Type "A" signs and shall be in compliance with the TxDOT Specifications Item 636. The sign assembly shall be in compliance with the TxDOT Specifications Item 644.

Measurement and payment shall be made on the basis of price bid per each (EA) and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work.

The contractor is required to use black powder coating on all metal poles and sign backings. All labor, materials and incidentals for this coating shall be included in this item.

BID ITEM NO. D-4 to D-13: Reflective Pavement Markings (Type I and II)

This pay item shall consist of the installation of stripes in the color, width and thickness as shown on the plans. Type I markings are thermoplastic type materials that require heating to elevated temperatures for application. Type II markings are paint-type materials that are applied at ambient or slightly elevated temperatures. New Portland-cement-concrete surfaces shall be cleaned to remove curing membrane, dirt, grease, loose and/or flaking existing construction markings and other forms of contamination. Pavement to which material is to be applied shall be completely dry. New Portland-cement-concrete surfaces shall be further prepared for Type I markings, after cleaning, by placing a Type II marking as a sealer. Work shall be in compliance with the TxDOT Specifications Item 666. This item also includes the pavement surface preparation for markings, TxDOT Item 678.

Measurement and payment for striping shall be made on a price per linear foot (LF) or each (EA) and shall include all types and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work.

BID ITEM NO. D-14 : Raised Pavement Marker (Type II-CR)

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Reflectorized Pavement Marker," "Traffic Button," or "Plowable Reflectorized Pavement Marker" of the types specified.

Raised pavement markers shall be in accordance with TxDOT Item 666 and 672.

SECTION GR - GENERAL REQUIREMENTS

Measurement and Payment shall be made on the basis of price bid per each (EA) and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work.

SECTION E – UTILITY IMPROVEMENTS

BID ITEM NO. E-1 to E-2: 16” AWWA C-900 DR-18 PVC Water Line

The work performed under this item shall be completed in accordance with “33 05 01.09 - Polyvinyl Chloride (PVC) Pressure Pipe and Fittings” and “33 05 23.33 - Pipeline Crossing” and “33 10 13 - Disinfecting of Water Utility Distribution” and “33 05 05.31 - Hydrostatic Testing” in “SECTION REF – Reference Information”.

Measurement and payment shall be on the basis of the unit price bid per linear foot (LF) and shall include all types and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work.

BID ITEM NO. E-3: 30” Steel Casing Pipe (By Bore)

The work performed under this item shall be completed in accordance with “33 05 23.33 - Pipeline Crossing” in “SECTION REF – Reference Information”.

Measurement and payment shall be on the basis of the unit price bid per linear foot (LF) and shall include all types and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work.

BID ITEM NO. E-4: Connection to Existing Water Line

The work performed under this item shall be completed in accordance with “33 05 01.09 - Polyvinyl Chloride (PVC) Pressure Pipe and Fittings” and “33 10 13 - Disinfecting of Water Utility Distribution” and “33 05 05.31 - Hydrostatic Testing” in “SECTION REF – Reference Information”.

Measurement and payment shall be on the basis of the unit price bid per each (EA) and shall include all types and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work.

BID ITEM NO. E-5: 16” Gate Valve

Gate valves shall be in accordance with the plans, the City of Burleson Standard Construction Details and NCTCOG Item 502.6 and 702.5.

BID ITEM NO. E-6: Trench Excavation Protection

Trench Excavation Protection shall be installed to the thickness lines and limits shown on the plans and details in accordance with the City of Burleson Standard Construction Details, the project details, and the applicable provisions of NCTCOG Item 107.20.3 “Trench Safety”.

SECTION GR - GENERAL REQUIREMENTS

Measurement and payment shall be on the basis of the price bid per linear foot (LF), and shall be full compensation for all labor, material, and equipment deemed necessary to complete the work. Trench safety requirements are mandatory and shall not be waived. Excavation for slope-back methods shall be subsidiary to the trench safety pay item including replacement and re-compaction. Excess excavation for other trench safety methods is also subsidiary to the trench safety pay item. Costs relating to the preparation of the trench safety plan including geotechnical investigation, testing and report preparation fees are all subsidiary to the pay item for trench safety.

SECTION F – LANDSCAPE IMPROVEMENTS

BID ITEM NO. F-1: Large Shade Tree - 3" Cal. Container Grown

Large Shade Trees shall be installed to the limits shown on the plans and details in accordance with "32 93 00 - Trees, Shrubs, and Ground Cover" in "SECTION REF – Reference Information". Watering shall be subsidiary to this item.

Measurement and payment shall be on the basis of the price bid per each (EA) and shall be total compensation for furnishing all materials, tools, equipment, labor, and any other incidentals necessary to complete the work.

BID ITEM NO. F-2: Landscape Irrigation

Landscape irrigation shall be installed to the limits shown on the plans and details in accordance with the specifications provided on the plans.

Measurement and payment shall be on the basis of the price bid per lump sum (LS) and shall be full compensation for labor, materials, equipment, tools, and incidentals deemed necessary to complete this pay item.

SECTION W

WAGE RATE SCHEDULE

SECTION V WAGE RATE SCHEDULE

The wage rates listed herein are those predetermined by the Secretary of Labor and State Statute and listed in the United States Department of Labor's (USDOL) General Decisions dated 01-05-2024 and are the minimum wages to be paid accordingly for each specified classification. To determine the applicable wage rate zone, a list entitled "TEXAS COUNTIES IDENTIFIED BY WAGE RATE ZONES" is provided in the contract. Any wage rate that is not listed herein and not in the USDOL's general decision, must be requested by the contractor through the completion of an Additional Classification and Wage Rate Request and be submitted for approval. **IMPORTANT NOTICE FOR STATE PROJECTS:** only the controlling wage rate zone applies to the contract. Effective 01-05-2024.

CLASS. #	CLASSIFICATION DESCRIPTION	ZONE TX02 *(TX20240002)	ZONE TX03 *(TX20240003)	ZONE TX04 *(TX20240004)	ZONE TX05 *(TX20240005)	ZONE TX06 *(TX20240006)	ZONE TX07 *(TX20240007)	ZONE TX08 *(TX20240008)	ZONE TX24 *(TX20240024)	ZONE TX25 *(TX20240025)	ZONE TX27 *(TX20240027)	ZONE TX28 *(TX20240028)	ZONE TX29 *(TX20240029)	ZONE TX30 *(TX20240030)	ZONE TX37 *(TX20240037)	ZONE TX38 *(TX20240038)	ZONE TX42 *(TX20240042)
1428	Agricultural Tractor Operator						\$12.69			\$12.35					\$11.75		
1300	Asphalt Distributor Operator	\$14.87	\$13.48	\$13.88	\$15.72	\$15.58	\$15.58	\$15.72	\$13.28	\$15.32	\$15.62	\$14.36	\$14.25	\$14.03	\$13.75	\$14.06	\$14.40
1303	Asphalt Paving Machine Operator	\$13.40	\$12.25	\$12.35	\$13.87	\$14.05	\$14.36	\$14.20	\$13.26	\$13.99	\$14.68	\$12.92	\$13.44	\$12.53	\$14.00	\$14.32	\$12.99
1106	Asphalt Raker	\$12.28	\$10.61	\$12.02	\$14.21	\$11.65	\$12.12	\$11.64	\$11.44	\$12.69	\$12.05	\$11.34	\$11.67	\$11.40	\$12.59	\$12.36	\$11.78
1112	Batching Plant Operator, Asphalt																
1115	Batching Plant Operator, Concrete																
1214	Blaster						\$18.36										
1615	Boom Truck Operator																
1444	Boring Machine Operator																
1305	Broom or Sweeper Operator	\$11.21	\$10.33	\$10.08	\$11.99		\$11.04	\$11.62		\$11.74	\$11.41	\$10.30		\$10.23	\$10.60	\$12.68	\$11.05
1144	Communications Cable Installer																
	Concrete Finisher, Paving and																
1124	Concrete Pavement Finishing	\$13.55	\$12.46	\$13.16	\$12.85	\$12.64	\$12.56	\$12.77	\$12.44	\$14.12	\$13.04	\$13.38	\$12.64	\$12.80	\$12.79	\$12.98	\$13.32
1318	Machine Operator				\$16.05		\$15.48			\$16.05		\$19.31				\$13.07	
	Concrete Paving, Curing, Float,																
1315	Texturing Machine Operator									\$14.46	\$17.33					\$11.71	
1333	Concrete Saw Operator				\$14.67											\$13.99	
1399	Concrete/Gunite Pump Operator																
1344	Cranes Operator, Hydraulic Over				\$18.22		\$18.36			\$18.12	\$18.04	\$20.21			\$18.63	\$13.66	
1345	80 Tons																
1342	Tons or Less	\$16.62	\$14.39	\$13.85	\$17.27		\$15.87			\$17.27		\$14.67			\$16.42	\$14.97	\$13.87
1343	80 Tons				\$20.52		\$19.36			\$20.52		\$17.49			\$25.13	\$15.80	
1306	Crawler Tractor Operator	\$13.96	\$16.63	\$13.62	\$14.26		\$15.67			\$14.07	\$13.15	\$13.38			\$14.60	\$13.68	\$13.50
1351	Crusher or Screen Plant Operator																
1446	Directional Drilling Local						\$11.67										
1445	Directional Drilling Operator				\$20.32		\$17.24										
1139	Electrician	\$20.96		\$19.87	\$19.80		\$26.35		\$20.27	\$19.80		\$20.92				\$27.11	\$19.87
1347	Excavator Operator, 50,000	\$13.46	\$12.56	\$13.67	\$17.19		\$12.86	\$14.38	\$13.49	\$17.19		\$13.88			\$14.09	\$12.71	\$14.42
	Excavator Operator, Over 50,000																
1348	Flagger	\$9.30	\$9.10	\$8.50	\$10.28	\$6.81	\$9.45	\$6.70		\$16.99	\$18.80	\$16.22				\$14.53	\$13.52
1151	Form Builder/Seller, Structures	\$13.52	\$12.30	\$13.38	\$12.91	\$12.71	\$12.87	\$12.38	\$12.26	\$13.84	\$12.98	\$13.07	\$13.61	\$12.82	\$14.73	\$12.23	\$12.25
1160	Form Setter, Paving & Curb	\$12.36	\$12.16	\$13.93	\$11.83	\$10.71	\$12.94			\$13.16	\$12.54	\$11.33	\$10.69		\$13.33	\$12.34	\$13.93
	Foundation Drift Operator, Crawler																
1360	Mounted				\$17.99					\$17.99						\$17.43	
1363	Truck Mounted				\$21.51		\$16.93			\$21.07	\$20.20	\$20.76		\$17.54	\$21.39	\$15.89	\$22.05
1369	3 CY or Less	\$12.28	\$13.49	\$13.40	\$13.85		\$13.04	\$13.15	\$13.29	\$13.69	\$12.64	\$12.89			\$13.51	\$13.32	\$12.17
1372	Over 3 CY	\$12.77	\$13.69	\$12.33	\$14.96		\$13.21	\$12.86	\$13.57	\$14.72	\$13.75	\$12.32			\$13.19	\$13.17	\$13.02
1329	Joint Sealer																
1172	Laborer, Common	\$10.30	\$9.86	\$10.08	\$10.51	\$10.71	\$10.50	\$10.24	\$10.58	\$10.72	\$10.45	\$10.30	\$10.25	\$10.03	\$10.54	\$11.02	\$10.15
1175	Laborer, Utility	\$11.80	\$11.53	\$12.70	\$12.17	\$11.81	\$12.27	\$12.11	\$11.33	\$12.32	\$11.80	\$11.53	\$11.23	\$11.50	\$11.95	\$11.73	\$12.37
1346	Loader/Backhoe Operator	\$14.18	\$12.77	\$12.97	\$15.68		\$14.12			\$15.18	\$13.58	\$12.87		\$13.21	\$14.13	\$14.29	\$12.90
1187	Mechanic	\$20.14	\$15.47	\$17.47	\$17.74	\$17.00	\$17.10			\$17.68	\$18.94	\$18.58	\$17.00	\$16.61	\$18.46	\$16.96	\$17.47

CLASS. #	CLASSIFICATION DESCRIPTION	ZONE TX02 *(TX20240002)	ZONE TX03 *(TX20240003)	ZONE TX04 *(TX20240004)	ZONE TX05 *(TX20240005)	ZONE TX06 *(TX20240006)	ZONE TX07 *(TX20240007)	ZONE TX08 *(TX20240008)	ZONE TX24 *(TX20240024)	ZONE TX25 *(TX20240025)	ZONE TX27 *(TX20240027)	ZONE TX28 *(TX20240028)	ZONE TX29 *(TX20240029)	ZONE TX30 *(TX20240030)	ZONE TX37 *(TX20240037)	ZONE TX38 *(TX20240038)	ZONE TX42 *(TX20240042)
1380	Milling Machine Operator	\$15.54	\$14.64	\$12.22	\$14.29		\$14.18			\$14.32	\$14.35	\$12.86			\$14.75	\$13.53	\$12.80
1390	Motor Grader Operator	\$17.49	\$16.52	\$16.88	\$17.12	\$18.37	\$18.51	\$16.69	\$16.13	\$17.19	\$18.35	\$17.07	\$17.74	\$17.47	\$17.08	\$15.69	\$20.01
1393	Motor Grader Operator, Rough	\$16.15	\$14.62	\$15.83	\$16.20	\$17.07	\$14.63	\$18.50		\$16.02	\$16.44	\$15.12	\$16.85	\$14.47	\$17.39	\$14.23	\$15.53
1413	Off Road Hauler			\$10.08	\$12.26		\$11.88			\$12.25		\$12.23			\$13.00	\$14.60	
1196	Painter, Structures					\$21.29	\$18.34						\$21.29			\$18.62	
1396	Pavement Marking Machine Operator	\$16.42					\$19.17	\$12.01		\$13.63	\$14.60	\$13.17		\$16.65	\$10.54	\$11.18	\$13.10
1443	Percussion or Rotary Drill Operator																
1202	Piledriver																
1205	Pipelayer		\$11.87	\$14.64	\$13.17	\$11.17	\$12.79		\$11.37	\$13.24	\$12.66	\$13.24	\$11.17	\$11.67		\$14.95	\$14.64
1384	Reclaimer/Pulverizer Operator	\$12.85			\$11.90		\$12.88			\$11.01		\$10.46					
1500	Reinforcing Steel Worker	\$13.50	\$14.07	\$17.53	\$16.17		\$14.00			\$16.18	\$12.74	\$15.83		\$17.10		\$15.15	\$17.72
1402	Roller Operator, Asphalt	\$10.95		\$11.96	\$13.29		\$12.78	\$11.61		\$13.08	\$12.36	\$11.68			\$11.71	\$11.95	\$11.50
1405	Roller Operator, Other	\$10.36		\$10.44	\$11.82		\$10.50	\$11.64		\$11.51	\$10.59	\$10.30		\$12.04	\$12.85	\$11.57	\$10.86
1411	Scraper Operator	\$10.61	\$11.07	\$10.85	\$12.88		\$12.27		\$11.12	\$12.96	\$11.88	\$12.43		\$11.22	\$13.95	\$13.47	\$10.89
1417	Self-Propelled Hammer Operator																
1194	Serviceur	\$13.98	\$12.34	\$14.11	\$14.74		\$14.51	\$15.56		\$13.44	\$14.31	\$13.93		\$12.43	\$13.72	\$13.97	\$14.11
1513	Sign Erector																
1513	Story Sear or Micro-Suracing																
1708	Machine Operator																
1341	Small Sijiform Machine Operator									\$15.96							
1515	Spreader Box Operator	\$12.60		\$13.12	\$14.71		\$14.04			\$14.73	\$13.84	\$13.66		\$13.45	\$11.83	\$13.58	\$14.05
1705	Structural Steel Welder															\$12.85	
1509	Structural Steel Worker						\$19.29									\$14.39	
1339	Subgrade Trimmer																
1143	Telecommunication Technician																
1145	Traffic Signal/Light Pole Worker						\$16.00										
1440	Trenching Machine Operator, Heavy						\$18.48										
1437	Trenching Machine Operator, Light																
1609	Truck Driver Lowboy-Float	\$14.46	\$13.63	\$13.41	\$15.00	\$15.93	\$15.66			\$16.24	\$16.39	\$14.30	\$16.62	\$15.63	\$14.28	\$16.03	\$13.41
1612	Truck Driver Transit-Mix				\$14.14					\$14.14							
1600	Truck Driver, Single Axle	\$12.74	\$10.82	\$10.75	\$13.04	\$11.61	\$11.79	\$13.53	\$13.16	\$12.31	\$13.40	\$10.30	\$11.61		\$11.97	\$11.46	\$10.75
1606	Dump Truck	\$11.33	\$14.53	\$11.95	\$12.95		\$11.68		\$14.06	\$12.62	\$11.45	\$12.28		\$13.08	\$11.68	\$11.48	\$11.10
1607	Truck Driver, Tandem Axle Tractor with Semi-Trailer	\$12.49	\$12.12	\$12.50	\$13.42		\$12.81	\$13.16		\$12.86	\$16.22	\$12.50			\$13.60	\$12.27	\$12.50
1441	Trucking Machine Operator, Heavy																
1442	Tunneling Machine Operator, Light																
1706	Welder		\$14.02		\$14.86		\$15.97		\$13.74	\$14.84					\$13.78		
1520	Work Zone Barricade Servicer	\$10.30	\$12.88	\$11.46	\$11.70	\$11.57	\$11.85	\$10.77	\$11.68	\$11.68	\$12.20	\$11.22	\$11.51	\$12.96	\$10.54	\$11.67	\$11.76

Notes:

*Represents the USDOL wage decision.

Any worker employed on this project shall be paid at the rate of one and one half (1-1/2) times the regular rate for every hour worked in excess of forty (40) hours per week.

For reference, the titles and descriptions for the classifications listed here are detailed further in the AGC of Texas' Standard Job Classifications and Descriptions for Highway, Heavy, Utilities, and Industrial Construction in Texas posted on the AGC's Web site for any contractor.

**TEXAS COUNTIES IDENTIFIED BY
WAGE RATE ZONES: 2, 3, 4, 5, 6, 7, 8, 24, 25, 27, 28, 29, 30, 37, 38, 42**

County Name	Zone	County Name	Zone	County Name	Zone	County Name	Zone
Anderson	28	Donley	37	Karnes	27	Reagan	37
Andrews	37	Duval	30	Kaufman	25	Real	37
Angelina	28	Eastland	37	Kendall	7	Red River	28
Aransas	29	Ector	2	Kenedy	30	Reeves	8
Archer	25	Edwards	8	Kent	37	Refugio	27
Armstrong	2	El Paso	24	Kerr	27	Roberts	37
Atascosa	7	Ellis	25	Kimble	37	Robertson	7
Austin	38	Erath	28	King	37	Rockwall	25
Bailey	37	Falls	28	Kinney	8	Runnels	37
Bandera	7	Fannin	28	Kleberg	27	Rusk	4
Bastrop	7	Fayette	27	Knox	37	Sabine	28
Baylor	37	Fisher	37	Lamar	28	San Augustine	28
Bee	27	Floyd	37	Lamb	37	San Jacinto	38
Bell	7	Foard	37	Lampasas	7	San Patricio	29
Bexar	7	Fort Bend	38	LaSalle	30	San Saba	37
Blanco	27	Franklin	28	Lavaca	27	Schleicher	37
Borden	37	Freestone	28	Lee	27	Scurry	37
Bosque	28	Frio	27	Leon	28	Shackelford	37
Bowie	4	Gaines	37	Liberty	38	Shelby	28
Brazoria	38	Galveston	38	Limestone	28	Sherman	37
Brazos	7	Garza	37	Lipscomb	37	Smith	4
Brewster	8	Gillespie	27	Live Oak	27	Somervell	28
Briscoe	37	Glasscock	37	Llano	27	Starr	30
Brooks	30	Goliad	29	Loving	37	Stephens	37
Brown	37	Gonzales	27	Lubbock	2	Sterling	37
Burleson	7	Gray	37	Lynn	37	Stonewall	37
Burnet	27	Grayson	25	Madison	28	Sutton	8
Caldwell	7	Gregg	4	Marion	28	Swisher	37
Calhoun	29	Grimes	28	Martin	37	Tarrant	25
Callahan	25	Guadalupe	7	Mason	27	Taylor	2
Cameron	3	Hale	37	Matagorda	27	Terrell	8
Camp	28	Hall	37	Maverick	30	Terry	37
Carson	2	Hamilton	28	McCulloch	37	Throckmorton	37
Cass	28	Hansford	37	McLennan	7	Titus	28
Castro	37	Hardeman	37	McMullen	30	Tom Green	2
Chambers	38	Hardin	38	Medina	7	Travis	7
Cherokee	28	Harris	38	Menard	37	Trinity	28
Childress	37	Harrison	42	Midland	2	Tyler	28
Clay	25	Hartley	37	Milam	28	Upshur	4
Cochran	37	Haskell	37	Mills	37	Upton	37
Coke	37	Hays	7	Mitchell	37	Uvalde	30
Coleman	37	Hemphill	37	Montague	37	Val Verde	8
Collin	25	Henderson	28	Montgomery	38	Van Zandt	28
Collingsworth	37	Hidalgo	3	Moore	37	Victoria	6
Colorado	27	Hill	28	Morris	28	Walker	28
Comal	7	Hockley	37	Motley	37	Waller	38
Comanche	37	Hood	28	Nacogdoches	28	Ward	37
Concho	37	Hopkins	28	Navarro	28	Washington	28
Cooke	37	Houston	28	Newton	28	Webb	3
Coryell	7	Howard	37	Nolan	37	Wharton	27
Cottle	37	Hudspeth	8	Nueces	29	Wheeler	37
Crane	37	Hunt	25	Ochiltree	37	Wichita	5
Crockett	8	Hutchinson	37	Oldham	37	Wilbarger	37
Crosby	2	Irion	2	Orange	38	Willacy	30
Culberson	8	Jack	28	Palo Pinto	28	Williamson	7
Dallam	37	Jackson	27	Panola	28	Wilson	7
Dallas	25	Jasper	28	Parker	25	Winkler	37
Dawson	37	Jeff Davis	8	Parmer	37	Wise	25
Deaf Smith	37	Jefferson	38	Pecos	8	Wood	28
Delta	25	Jim Hogg	30	Polk	28	Yoakum	37
Denton	25	Jim Wells	27	Potter	2	Young	37
DeWitt	27	Johnson	25	Presidio	8	Zapata	30
Dickens	37	Jones	25	Rains	28	Zavala	30
Dimmit	30			Randall	2		

SECTION AD

ADDENDA

SECTION AD

ADDENDA

To Be Included as Necessary

SECTION REF

REFERENCE INFORMATION

SECTION REF

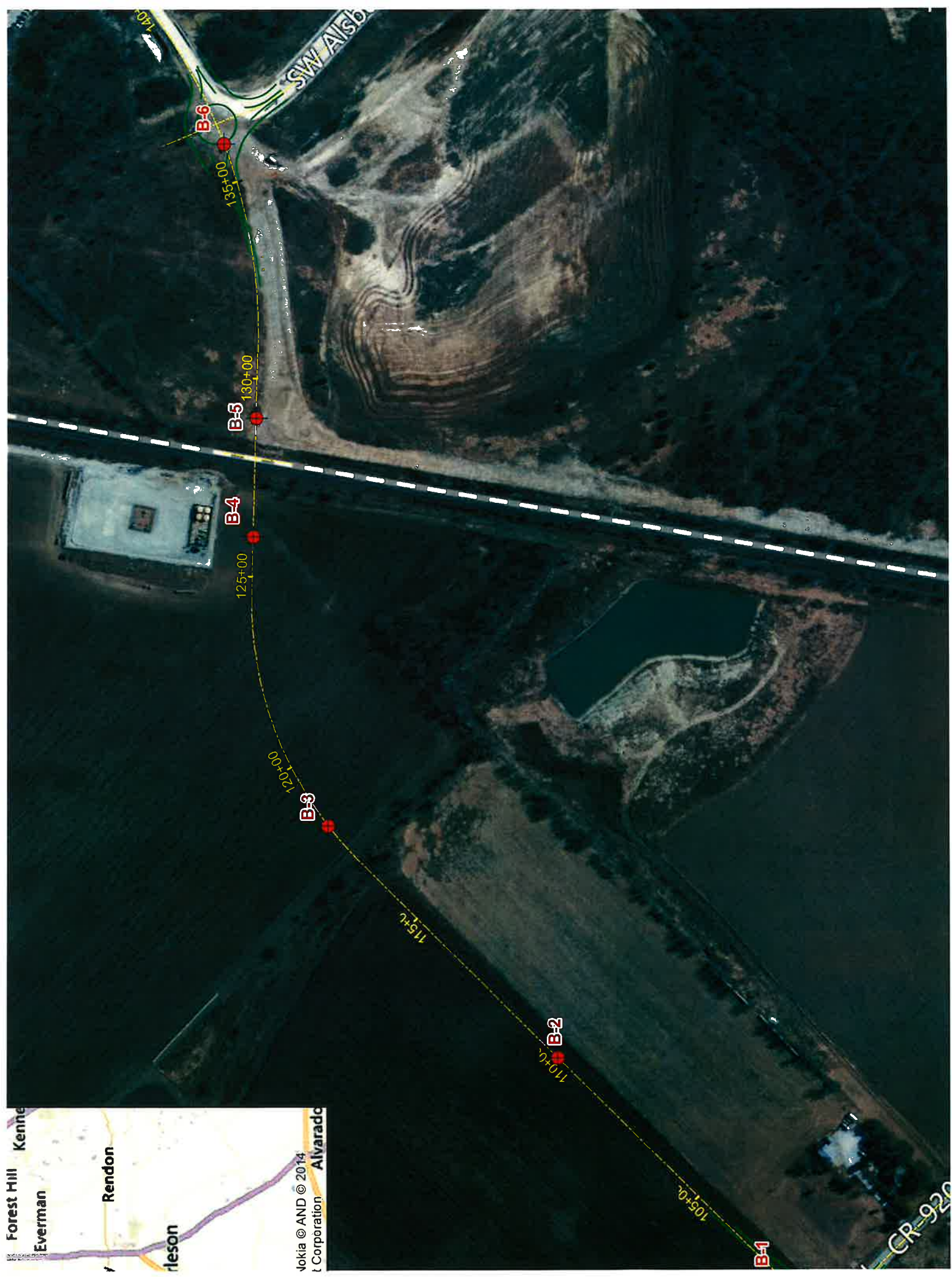
REFERENCE INFORMATION

GEOTECHNICAL BORING LOCATION MAP

AND BORING LOGS



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t Corporation






LOG OF BORING NO. B-01

Project Description: Alsbury Boulevard Extension
Project Location: Burleson, Texas
Date Drilling Started: 2/27/2014
Logged By: MH
Rig Type: CME 75
Latitude: 32.530924

Drilling Co.: Total Depth
Hammer Type: Automatic
Longitude: -97.375366

Project No.: BUR12451
Phase No.: ****
Date Drilling Completed: 2/27/2014
Drill Method: DRY w/ CFA
Hammer Wt. & Drop: 170 lb.; 24 in.
Elevation: 801.9 ft.

DEPTH, ft	SAMPLE					SYMBOL	MATERIAL DESCRIPTION	WATER CONTENT, %	UNIT DRY WEIGHT, pcf	% PASSING NO. 200 SIEVE	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	UNC. COMPRESSIVE STRENGTH, tsf	STRAIN AT FAILURE, %	ELEVATION, ft	
	TYPE	BLOW COUNTS	HAND PENE-TROMETER (P) / TORVANE (T), tsf	RECOVERY, %	RQD, %												
U-1		2.0 (P)	50				SANDY FAT CLAY (CH), dark brown, medium stiff to very stiff, moist, blocky, with calcareous nodules -highly calcareous, iron stained, with ironstone and calcareous pockets below 4 feet -marly, with iron-stained joints below 8 feet Total boring depth 10.0 ft.	23	107	68	66	19	47	1	14.9		
U-2		2.0 (P)	50														
U-3		1.7 (P)	100														
U-4		4.5 (P)	100														
U-5		4.5+ (P)	100														
U-6		4.5+ (P)	100														
SPT-7	13-20-13 (33)																
SPT-8	10-16-13 (29)																
5																797	
10																	792
15																	787
20																	782
25																	777

Water Observations:
 None At Time Of Drilling
 None End of Drilling

Remarks: 0-10 feet - CFA. Backfilled with soil cuttings. Elevation approximated from construction plans (Sta. 102+00).



LOG OF BORING NO. B-02

Project Description: Alsbury Boulevard Extension
Project Location: Burleson, Texas
Date Drilling Started: 2/27/2014
Logged By: MH
Rig Type: CME 75
Latitude: 32.532473

Drilling Co.: Total Depth
Hammer Type: Automatic
Longitude: -97.373525

Project No.: BUR12451
Phase No.: ****
Date Drilling Completed: 2/27/2014
Drill Method: DRY w/ CFA
Hammer Wt. & Drop: 170 lb.; 24 in.
Elevation: 794.0 ft.

DEPTH, ft	SAMPLE					SYMBOL	MATERIAL DESCRIPTION	WATER CONTENT, %	UNIT DRY WEIGHT, pcf	% PASSING NO. 200 SIEVE	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	UNC. COMPRESSIVE STRENGTH, tsf	STRAIN AT FAILURE, %	ELEVATION, ft		
	TYPE	BLOW COUNTS	HAND PENE-TROMETER (P) / TORVANE (T), tsf	RECOVERY, %	RQD, %													
U-1		2.5 (P)	50				FAT CLAY (CH), with sand, dark brown, stiff to very stiff, moist, blocky, partially slickensided -with calcareous nodules below 1.5 feet	17	111	71	63	23	40	1.3	3.6	789		
U-2		3.5 (P)	75															
U-3		3.0 (P)	100															
U-4		4.5+ (P)	100															
U-5		4.5+ (P)	100															
5	TCP	33/6" 50/5"					LEAN CLAY (CL), yellow-brown, stiff, moist, calcareous -highly calcareous from 4 to 5 feet									789		
							MARL, yellow-brown, hard, moist										784	
10	TCP	50/2.25" 50/1.25"					LIMESTONE, yellow-brown, hard, weathered Total boring depth 10.3 ft.										779	
15																		774
20																		769
25																		

Water Observations:
 None At Time Of Drilling
 None End of Drilling

Remarks: 0-10.3 feet - CFA. Backfilled with soil cuttings. Elevation approximated from construction plans (Sta. 110+00).



LOG OF BORING NO. B-03

Project Description: Alsbury Boulevard Extension
Project Location: Burleson, Texas
Date Drilling Started: 2/27/2014
Logged By: MH
Rig Type: CME 75
Latitude: 32.534055

Drilling Co.: Total Depth
Hammer Type: Automatic
Longitude: -97.371607

Project No.: BUR12451
Phase No.: ****
Date Drilling Completed: 2/27/2014
Drill Method: DRY w/ CFA
Hammer Wt. & Drop: 170 lb.; 24 in.
Elevation: 787.3 ft.

DEPTH, ft	SAMPLE					SYMBOL	MATERIAL DESCRIPTION	WATER CONTENT, %	UNIT DRY WEIGHT, pcf	% PASSING NO. 200 SIEVE	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	UNC. COMPRESSIVE STRENGTH, tsf	STRAIN AT FAILURE, %	ELEVATION, ft	
	TYPE	BLOW COUNTS	HAND PENE-TROMETER (P) / TORVANE (T), tsf	RECOVERY, %	RQD, %												
U-1		3.5 (P)	83			FAT CLAY (CH), with sand, dark brown, stiff to very stiff, dry to moist, blocky											
U-2		2.0 (P)	92			-slickensided below 2 feet	27	96	81	68	25	43	1.3	2			
U-3		3.5 (P)	100			-with calcareous nodules below 3 feet											
U-4		3.5 (P)	100														
U-5		4.5+ (P)	100														
5						SANDY LEAN CLAY (CL), yellow-brown, stiff, moist, marly 4.5/782.8	20	109	70	35	14	21	1.8	2.6		782	
U-6		4.5+ (P)	100														
U-7		4.5+ (P)	100														
	SPT-8	17-15-25 (40)				-with a 6-inch sandy gravel seam at 6.8 feet -with a 6-inch hard marl seam at 7.7 feet											
10						LIMESTONE, light yellow-brown, soft to hard, slightly weathered to weathered 8.2/779.1										777	
	TCP	26/6" 50/1"					-hard below 10.5 feet										
							-light gray below 13 feet										
15																772	
	TCP	50/1.25" 50/.875															
						Total boring depth 15.2 ft.											
20																767	
25																762	

Water Observations:
 None At Time Of Drilling
 None End of Drilling

Remarks: 0-15.2 feet - CFA. Backfilled with soil cuttings. Elevation approximated from construction plans (Sta. 118+25).



LOG OF BORING NO. B-04

Project Description: Alsbury Boulevard Extension
Project Location: Burseson, Texas
Date Drilling Started: 2/27/2014
Logged By: MH
Rig Type: CME 75
Latitude: 32.534553

Drilling Co.: Total Depth
Hammer Type: Automatic
Longitude: -97.369226

Project No.: BUR12451
Phase No.: ****
Date Drilling Completed: 2/27/2014
Drill Method: DRY w/ CFA
Hammer Wt. & Drop: 170 lb.; 24 in.
Elevation: 791.4 ft.

DEPTH, ft	SAMPLE					SYMBOL	MATERIAL DESCRIPTION	WATER CONTENT, %	UNIT DRY WEIGHT, pcf	% PASSING NO. 200 SIEVE	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	UNC. COMPRESSIVE STRENGTH, tsf	STRAIN AT FAILURE, %	ELEVATION, ft	
	TYPE	BLOW COUNTS	HAND PENE-TROMETER (P) / TORVANE (T), tsf	RECOVERY, %	RQD, %												
5	U-1		4.5+ (P)	50			LEAN CLAY (CL), brown with yellow-brown, stiff to very stiff, moist, blocky, with calcareous nodules -yellow-brown with light gray below 1 foot	16		86	48	16	32				
	U-2		4.5 (P)	100													
	U-3		3.5 (P)	100					15	120	92	43	14	29	1.5	5.6	
	U-4		4.5+ (P)	58													
	U-5		4.5+ (P)	100				-with occasional iron-stained joints, marly below 5 feet									786
	U-6		4.5+ (P)	100													
	SPT-7	11-17-21 (38)					MARL, yellow-brown, hard, moist, jointed										
	SPT-8	20-30-50/5.00"						LIMESTONE, gray with yellow-brown, hard, weathered									781
10	Total boring depth 10.4 ft.																
15																	
20																	
25																	

Water Observations:
 None At Time Of Drilling
 None End of Drilling

Remarks: 0-10.4 feet - CFA. Backfilled with soil cuttings. Elevation approximated from construction plans (Sta. 126+00).



LOG OF BORING NO. B-05

Project Description: Alsbury Boulevard Extension
Project Location: Burleson, Texas
Date Drilling Started: 2/27/2014
Logged By: MH
Rig Type: CME 75
Latitude: 32.534523

Drilling Co.: Total Depth
Hammer Type: Automatic
Longitude: -97.368253

Project No.: BUR12451
Phase No.: ****
Date Drilling Completed: 2/27/2014
Drill Method: DRY w/ CFA
Hammer Wt. & Drop: 170 lb.; 24 in.
Elevation: 789.7 ft.

DEPTH, ft	SAMPLE					SYMBOL	MATERIAL DESCRIPTION	WATER CONTENT, %	UNIT DRY WEIGHT, pcf	% PASSING NO. 200 SIEVE	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	UNC. COMPRESSIVE STRENGTH, tsf	STRAIN AT FAILURE, %	ELEVATION, ft
	TYPE	BLOW COUNTS	HAND PENE-TROMETER (P) / TORVANE (T), tsf	RECOVERY, %	RQD, %											
U-1		4.5 (P)	33				FAT CLAY (CH), with sand, dark brown, very stiff to hard, moist, blocky, with calcareous nodules -with yellow-brown, slickensided below 1 foot	22	103	75	63	21	42	2.2	5.6	
U-2		4.5 (P)	33				-highly calcareous below 2 feet	15		82	50	17	33			
U-3		4.5+ (P)	100													
U-4		4.5+ (P)	33													
5	SPT-5	18-33-42 (75)					LEAN CLAY (CL), yellow-brown, sitff, moist -marly, with iron-stained joints below 4 feet									785
	SPT-6	9-10-13 (23)					-light yellow-brown below 6.5 feet									
	SPT-7	9-15-34 (49)														
10	Total boring depth 10.0 ft.															
15																
20																
25																

Water Observations:
 None At Time Of Drilling
 None End of Drilling

Remarks: 0-10 feet - CFA. Backfilled with soil cuttings. Elevation approximated from construction plans (Sta. 129+00).



LOG OF BORING NO. B-06

Project Description: Alsbury Boulevard Extension
Project Location: Burlison, Texas
Date Drilling Started: 2/27/2014
Logged By: MH
Rig Type: CME 75
Latitude: 32.534725

Drilling Co.: Total Depth
Hammer Type: Automatic
Longitude: -97.366012

Project No.: BUR12451
Phase No.: ****
Date Drilling Completed: 2/27/2014
Drill Method: DRY w/ CFA
Hammer Wt. & Drop: 170 lb.; 24 in.
Elevation: 778.1 ft.

DEPTH, ft	SAMPLE					SYMBOL	MATERIAL DESCRIPTION	WATER CONTENT, %	UNIT DRY WEIGHT, pcf	% PASSING NO. 200 SIEVE	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	UNC. COMPRESSIVE STRENGTH, tsf	STRAIN AT FAILURE, %	ELEVATION, ft
	TYPE	BLOW COUNTS	HAND PENE-TROMETER (P) / TORVANE (T), tsf	RECOVERY, %	RQD, %											
5	U-1		1.2 (P)	100			FAT CLAY (CH), with sand, dark brown, medium stiff to stiff, moist, blocky, with calcareous nodules -hard, slickensided below 3 feet	28	97	75	59	21	38	0.7	3.1	773
	U-2		1.2 (P)	75												
	U-3		1.7 (P)	83												
	U-4		4.5+ (P)	100												
	U-5		4.5+ (P)	100												
	SPT-6	12-12-15 (27)				5.5/772.6	LEAN CLAY (CL), yellow-brown, stiff, moist, gravelly, marly									
10	SPT-7	14-22-50/5.50"				8.5/769.6	MARL, yellow-brown, hard, moist, with iron-stained joints									768
	Total boring depth 10.0 ft.															

Water Observations:
 None At Time Of Drilling
 None End of Drilling

Remarks: 0-10 feet - CFA. Backfilled with soil cuttings. Elevation approximated from construction plans (Sta. 136+00).

BORING LOG LEGEND AND NOMENCLATURE

Abbreviations

U – Undisturbed Sample (tube)	SPT – Standard Penetration Test	TV – Torvane
A – Auger Sample	TCP – Texas Cone Penetration	NP – Non Plastic
CS – Continuous Sample	CFA – Continuous Flight Auger	ATD – At Time of Drilling
C – Rock Core	HSA – Hollow Stem Auger	AD – After Drilling

General Terms

Term	Description
Blow Counts	Results from either the Standard Penetration Test (SPT) or the Texas Cone Penetration (TCP) test.
Recovery	Length of sample or core recovered divided by the total length pushed, driven, or cored (expressed as a %)
Rock Quality Designation (RQD)	Cumulative length of unfractured pieces of core material more than 4 inches in length divided by the total length of material cored (expressed as a percentage)

Consistency of Cohesive Soil

Description	Comp. Strength, tsf	SPT Blows	TCP Blows	Criteria
Very Soft	< 0.25	0 – 2	0 – 8	Sample sags under its own weight and is easily deformed
Soft	≥ 0.25 – < 0.5	> 2 – 4	> 8 – 20	Easily pinched between fingers and remolded with light finger pressure
Medium Stiff	≥ 0.5 – < 1.0	> 4 – 8	N/A for TxDOT	Imprinted easily with fingers and remolded with firm finger pressure
Stiff	≥ 1.0 – < 2.0	> 8 – 15	> 20 – 40	Imprinted with strong finger pressure or indented easily with fingernail
Very Stiff	≥ 2.0 – < 4.0	> 15 – 30	> 40 to 80	Light imprint from finger or light indent with fingernail
Hard	≥ 4.0	> 30	> 80	Difficult to indent with fingernail

Apparent Density of Cohesionless Soil

Description	SPT Blow Count	Texas Cone Blow Count
Very Loose	0 – 4	0 – 8
Loose	> 4 – 10	> 8 – 20
Medium Dense	> 10 – 30	> 20 to 80
Dense	> 30 – 50	80 to ≥ 5"
Very Dense	> 50	0" to < 5"

Soil Structure

Description	Criteria
Stratified	Alternating layers of varying material/color with layers ≥ 1/4-inch thick
Laminated	Alternating layers of varying material/color with layers < 1/4-inch thick
Fissured	Breaks along definite planes with little resistance
Slickensided	Fracture planes appear polished or glossy; shows movement direction
Blocky	Cohesive soil that can be broken into small, angular lumps
Lensed	Inclusion of small pockets of soil that is different from dominate type
Homogenous	Same color and appearance throughout

Moisture Condition

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water

Textural Adjectives

Textural Item	Description
Pit	Pinhole sized openings
Vug	Small openings up to 4 inches in size
Cavity	Opening larger than 4 inches
Honeycomb	Numerous and grouped pits and vugs
Vesicle	Small openings in volcanic rocks

BORING LOG LEGEND AND NOMENCLATURE

Rock Hardness Descriptors

Grade	Approx. Comp. Strength, tsf	Approx. TCP Range	Field Test
Very Soft	< 10 - 100	>6"	Can be peeled with pocket knife, crumbles under firm blows of geological hammer
Soft	100 - 500	4" - 6"	Can be peeled with pocket knife with difficulty, indented by firm blows of geological hammer
Hard	500 - 1000	1" - 5"	Cannot be peeled with pocket knife, can be fractured by single firm blow of hammer
Very Hard	1000 - 2000	0" - 2"	Specimen requires more than one blow of geological hammer to fracture it
Extremely Hard	> 2000	0"	Specimen requires many blows of geological hammer to fracture it











Degree of Rock Weathering

Description	Criteria
Unweathered	No evidence of chemical or mechanical alteration
Slightly Weathered	Slight discoloration of surface or discontinuities; < 10% volume altered
Weathered	Discoloring evident; 10 to 50% of volume altered
Highly Weathered	Entire mass discolored; alteration through majority of rock
Decomposed	Rock reduced to soil consistency with some rock-like texture







Rock Bedding Structure

Description	Criteria
Laminated	< 3/8 inch
Very Thinly Bedded	3/8—1 inch
Thinly Bedded	1 inch—4 inches
Moderately Bedded	4 inches—1 foot
Thickly Bedded	1 foot—3 feet
Very Thickly Bedded	3— 10 feet
Massive	> 10 feet

Soil Column Graphic Symbols*

Graphic	Represented Soil Types	Graphic	Represented Soil Types
	Fat Clay, Fat Clay with sand, Sandy Fat Clay		Well-Graded Sand or Poorly-Graded Sand; little to no fines
	Lean Clay, Lean Clay with sand, Sandy Lean Clay, Silty Clay		Clayey Gravel, Gravel-Sand-Clay Mixtures
	Inorganic Silt and Organic Silt		Silty Gravel, Gravel-Sand-Silt Mixtures
	Clayey Sand, Clay-Sand Mixtures		Well-Graded Gravel or Poorly-Graded Gravel; little to no fines
	Silty Sands, Sand-Silt Mixtures		Fill with Significant Debris or Deleterious Material

Rock Column Graphic Symbols*

Graphic	Represented Rock Types	Graphic	Represented Rock Types
	Limestone, Shaly/Marly Limestone, Limestone with Shale		Marl, Marl with Limestone, Marl with Shale
	Shale, Shale with Limestone		Sandstone, Shaly Sandstone, Sandstone with Shale
	Mudstone		Generic Bedrock Symbol

* Combined graphics may be used for dual classifications. Not all graphics represented. Refer to lithology description for soil classification or rock type.



Pressure Swell Test (ASTM D-4546, Method C)

Project Name Alsbury Boulevard Extension Project No. BUR12451 Date 3/5/2014

Boring No. B-04 Sample No. U-4 Sample Depth (ft.) 3-5

Sample Description _____

Initial Sample Parameters			
Diameter (in.)		Height (in)	
Sample Diameter	2.5	Res Dev. Height	0.2 in.
		Ring Height	1 in.
		Sample Height	0.8 in.
			(A.) Initial Area (in ²)
			4.908
			(V) Volume (in ³)
			3.926

Water Content/ Unit Weight Determination			
Tare Designation	13	(WC) Water Content % (C/E x 100)	12.0%
(A) Wet Weight + Tare (g)	34.12	Sample Weight + ring (g)	254.99
(B) Dry Weight + Tare (g)	30.52	Weight of Ring (g)	108.68
(C) Water Weight (g), (A-B)	3.60	(WUW) Wet Unit Weight (pcf)	141.95
(D) Tare Weight (g)	0.41	(DUW) Dry Unit Weight (pcf)	126.79
(E) Dry Soil Weight (g), (B-D)	30.11		

Final Sample Parameters			
Tare Designation	61	(WC) Water Content % (C/E x 100)	14.9%
(A) Wet Weight + Tare (g)	37.79		
(B) Dry Weight + Tare (g)	32.93		
(C) Water Weight (g), (A-B)	4.86		
(D) Tare Weight (g)	0.42		
(E) Dry Soil Weight (g), (B-D)	32.51		

Test Data				
Date	Loading (lbs.)	Elapsed Time (min.)	Dial Reading (in.)	% Swell / Collapse
3/5/2014	0	0	0.0532	0.00%
3/5/2014	13 (381 psf)	0.5	0.0531	-0.01%
3/5/2014	13 (381 psf)	10	0.0531	-0.01%
WATER ADDED				
3/6/2014	13 (381 psf)	1080 (18 hr.)	0.0567	0.44%
3/6/2014	23 (675 psf)	1440 (24 hr.)	0.0556	0.30%
3/6/2014	43 (1262 psf)	1500 (25 hr.)	0.0536	0.05%
3/6/2014	63 (1848 psf)	1560 (26 hr.)	0.0536	0.05%

Appartatus #: 8

Tested By: DoHyun Kim



Laboratory Sulfate Content (TX-145-E)

Project Name Alsbury Boulevard Extension Project No. BUR12451 Date 3/14/2014

Boring No. <u>B-02</u>		Sample No. <u>U-2</u>		Sample Depth (ft.) <u>1-2</u>	
Dilution Ratio Used	1:20	Dilution Ratio Used	1:20	Dilution Ratio Used	1:20
Average Reading	61.3	Average Reading	57.6	Average Reading	58.6
Sulfate Content	1226	Sulfate Content	1152	Sulfate Content	1172
Average Sulfate Content:		1183 ppm			

Boring No. <u>B-04</u>		Sample No. <u>U-3</u>		Sample Depth (ft.) <u>2-3</u>	
Dilution Ratio Used	1:20	Dilution Ratio Used	1:20	Dilution Ratio Used	1:20
Average Reading	85.0	Average Reading	91.6	Average Reading	82.0
Sulfate Content	1700	Sulfate Content	1832	Sulfate Content	1640
Average Sulfate Content:		1724 ppm			

Boring No. <u>B-05</u>		Sample No. <u>U-1</u>		Sample Depth (ft.) <u>0-1</u>	
Dilution Ratio Used	1:20	Dilution Ratio Used	1:20	Dilution Ratio Used	1:20
Average Reading	65.0	Average Reading	50.0	Average Reading	66.0
Sulfate Content	1300	Sulfate Content	1000	Sulfate Content	1320
Average Sulfate Content:		1207 ppm			

SECTION REF

REFERENCE INFORMATION

BNSF RAILWAY CONSTRUCTION AGREEMENT

EXHIBIT "C-1"

Agreement Between BNSF RAILWAY COMPANY and the CONTRACTOR

BNSF RAILWAY COMPANY
Attention: Manager Public Projects

Railway Files: 020664T, 020460G
Agency Project: Construction of SW Alsbury Blvd and closure of County Road 921 at BNSF Railway

Gentlemen:

The undersigned (hereinafter called, the "Contractor"), has entered into a contract (the "Contract") dated _____, with the **City of Burleson, Texas** for the performance of certain work in connection with the following project: **construction of curbing and the roadway approaches on SW Alsbury Boulevard (DOT No. 020664T) located at railroad milepost 330.66 and the closure and removal of the roadway approaches and installation of permanent end-of-road treatments at County Road 921 (DOT No. 020460G) located at railroad milepost 331.33 on Railroad's Fort Worth Subdivision, Line Segment 7500 in Burleson, Texas.** Performance of such work will necessarily require Contractor to enter **BNSF RAILWAY COMPANY** ("Railway") right of way and property ("Railway Property"). The Contract provides that no work will be commenced within Railway Property until the Contractor employed in connection with said work for **City of Burleson** (i) executes and delivers to Railway an Agreement in the form hereof, and (ii) provides insurance of the coverage and limits specified in such Agreement and Section 3 herein. If this Agreement is executed by a party who is not the Owner, General Partner, President or Vice President of Contractor, Contractor must furnish evidence to Railway certifying that the signatory is empowered to execute this Agreement on behalf of Contractor.

Accordingly, in consideration of Railway granting permission to Contractor to enter upon Railway Property and as an inducement for such entry, Contractor, effective on the date of the Contract, has agreed and does hereby agree with Railway as follows:

Section 1. RELEASE OF LIABILITY AND INDEMNITY

Contractor hereby waives, releases, indemnifies, defends and holds harmless Railway for all judgments, awards, claims, demands, and expenses (including attorneys' fees), for injury or death to all persons, including Railway's and Contractor's officers and employees, and for loss and damage to property belonging to any person, arising in any manner from Contractor's or any of Contractor's subcontractors' acts or omissions or any work performed on or about Railway's

property or right-of-way. **THE LIABILITY ASSUMED BY CONTRACTOR WILL NOT BE AFFECTED BY THE FACT, IF IT IS A FACT, THAT THE DESTRUCTION, DAMAGE, DEATH, OR INJURY WAS OCCASIONED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF RAILWAY, ITS AGENTS, SERVANTS, EMPLOYEES OR OTHERWISE, EXCEPT TO THE EXTENT THAT SUCH CLAIMS ARE PROXIMATELY CAUSED BY THE INTENSIONAL MISCONDUCT OR GROSS NEGLIGENCE OF RAILWAY.**

THE INDEMNIFICATION OBLIGATION ASSUMED BY CONTRACTOR INCLUDES ANY CLAIMS, SUITS OR JUDGMENTS BROUGHT AGAINST RAILWAY UNDER THE FEDERAL EMPLOYEE'S LIABILITY ACT, INCLUDING CLAIMS FOR STRICT LIABILITY UNDER THE SAFETY APPLIANCE ACT OR THE LOCOMOTIVE INSPECTION ACT, WHENEVER SO CLAIMED.

Contractor further agrees, at its expense, in the name and on behalf of Railway, that it will adjust and settle all claims made against Railway, and will, at Railway's discretion, appear and defend any suits or actions of law or in equity brought against Railway on any claim or cause of action arising or growing out of or in any manner connected with any liability assumed by Contractor under this Agreement for which Railway is liable or is alleged to be liable. Railway will give notice to Contractor, in writing, of the receipt or dependency of such claims and thereupon Contractor must proceed to adjust and handle to a conclusion such claims, and in the event of a suit being brought against Railway, Railway may forward summons and complaint or other process in connection therewith to Contractor, and Contractor, at Railway's discretion, must defend, adjust, or settle such suits and protect, indemnify, and save harmless Railway from and against all damages, judgments, decrees, attorney's fees, costs, and expenses growing out of or resulting from or incident to any such claims or suits.

In addition to any other provision of this Agreement, in the event that all or any portion of this Article shall be deemed to be inapplicable for any reason, including without limitation as a result of a decision of an applicable court, legislative enactment or regulatory order, the parties agree that this Article shall be interpreted as requiring Contractor to indemnify Railway to the fullest extent permitted by applicable law. **THROUGH THIS AGREEMENT THE PARTIES EXPRESSLY INTEND FOR CONTRACTOR TO INDEMNIFY RAILWAY FOR RAILWAY'S ACTS OF NEGLIGENCE.**

It is mutually understood and agreed that the assumption of liabilities and indemnification provided for in this Agreement survive any termination of this Agreement.

Section 2. TERM

This Agreement is effective from the date of the Contract until (i) the completion of the project set forth herein, and (ii) full and complete payment to Railway of any and all sums or other amounts owing and due hereunder.

Section 3. INSURANCE

Contractor shall, at its sole cost and expense, procure and maintain during the life of this Agreement the following insurance coverage:

A. Commercial General Liability insurance. This insurance shall contain broad form contractual liability with a combined single limit of a minimum of \$2,000,000 each occurrence and an aggregate limit of at least \$6,000,000 but in no event less than the amount otherwise carried by the Contractor. Coverage must be purchased on a post 2004 ISO occurrence form or equivalent and include coverage for, but not limit to the following:

- ◆ Bodily Injury and Property Damage
- ◆ Personal Injury and Advertising Injury
- ◆ Fire legal liability
- ◆ Products and completed operations

This policy shall also contain the following endorsements, which shall be indicated on the certificate of insurance:

- ◆ The definition of insured contract shall be amended to remove any exclusion or other limitation for any work being done within 50 feet of railroad property.
- ◆ Waiver of subrogation in favor of and acceptable to Railway.
- ◆ Additional insured endorsement in favor of and acceptable to Railway.
- ◆ Separation of insureds.
- ◆ The policy shall be primary and non-contributing with respect to any insurance carried by Railway.

It is agreed that the workers' compensation and employers' liability related exclusions in the Commercial General Liability insurance policy(s) required herein are intended to apply to employees of the policy holder and shall not apply to **Railway** employees.

No other endorsements limiting coverage as respects obligations under this Agreement may be included on the policy with regard to the work being performed under this agreement.

B. Business Automobile Insurance. This insurance shall contain a combined single limit of at least \$1,000,000 per occurrence, and include coverage for, but not limited to the following:

- ◆ Bodily injury and property damage
- ◆ Any and all vehicles owned, used or hired

The policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- ◆ Waiver of subrogation in favor of and acceptable to Railway.
- ◆ Additional insured endorsement in favor of and acceptable to Railway.

- ◆ Separation of insureds.
- ◆ The policy shall be primary and non-contributing with respect to any insurance carried by Railway.

C. Workers Compensation and Employers Liability insurance including coverage for, but not limited to:

- ◆ Contractor's statutory liability under the worker's compensation laws of the state(s) in which the work is to be performed. If optional under State law, the insurance must cover all employees anyway.
- ◆ Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 by disease policy limit, \$500,000 by disease each employee.

This policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- ◆ Waiver of subrogation in favor of and acceptable to Railway.

D. Railroad Protective Liability insurance naming only the **Railway** as the Insured with coverage of at least \$2,000,000 per occurrence and \$6,000,000 in the aggregate. The policy Must be issued on a standard ISO form CG 00 35 12 04 and include the following:

- ◆ Endorsed to include the Pollution Exclusion Amendment
- ◆ Endorsed to include the Limited Seepage and Pollution Endorsement.
- ◆ Endorsed to remove any exclusion for punitive damages.
- ◆ No other endorsements restricting coverage may be added.
- ◆ The original policy must be provided to the **Railway** prior to performing any work or services under this Agreement
- ◆ Definition of "Physical Damage to Property" shall be endorsed to read: "means direct and accidental loss of or damage to all property owned by any named insured and all property in any named insured' care, custody, and control arising out of the acts or omissions of the contractor named on the Declarations.

In lieu of providing a Railroad Protective Liability Policy, Licensee may participate (if available) in Railway's Blanket Railroad Protective Liability Insurance Policy.

Other Requirements:

Where allowable by law, all policies (applying to coverage listed above) shall contain no exclusion for punitive damages.

Contractor agrees to waive its right of recovery against **Railway** for all claims and suits against **Railway**. In addition, its insurers, through the terms of the policy or policy endorsement, waive their right of subrogation against **Railway** for all claims and suits. Contractor further waives

its right of recovery, and its insurers also waive their right of subrogation against **Railway** for loss of its owned or leased property or property under Contractor's care, custody, or control.

Allocated Loss Expense shall be in addition to all policy limits for coverages referenced above.

Contractor is not allowed to self-insure without the prior written consent of **Railway**. If granted by **Railway**, self-insured retention or other financial responsibility for claims shall be covered directly by Contractor in lieu of insurance. Any and all **Railway** liabilities that would otherwise, in accordance with the provisions of this **Agreement**, be covered by Contractor's insurance will be covered as if Contractor elected not to include a deductible, self-insured retention or other financial responsibility for claims.

Prior to commencing the Work, Contractor shall furnish to **Railway** an acceptable certificate(s) of insurance from an authorized representative evidencing the required coverage(s), endorsements, and amendments. The certificate should be directed to the following addresses:

BNSF Railway Company
c/o CertFocus
P.O. Box 140528
Kansas City, MO 64114
Toll Free: 877-576-2378
Fax number: 817-840-7487
Email: BNSF@certfocus.com
www.certfocus.com

Contractor shall notify **Railway** in writing at least 30 days prior to any cancellation, non-renewal, substitution, or material alteration.

Any insurance policy must be written by a reputable insurance company acceptable to **Railway** or with a current Best's Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the service is to be provide.

If coverage is purchased on a "claims made" basis, Contractor hereby agrees to maintain coverage in force for a minimum of three years after expiration, cancellation or termination of this contract. Annually, Contractor agrees to provide evidence of such coverage as required hereunder.

Contractor represents that this **Agreement** has been thoroughly reviewed by Contractor's insurance agent(s)/broker(s), who have been instructed by Contractor to procure the insurance coverage required by this **Agreement**.

Not more frequently than once every five years, **Railway** may reasonably modify the required insurance coverage to reflect then-current risk management practices in the railroad industry and underwriting practices in the insurance industry.

If any portion of the operation is to be subcontracted by Contractor, Contractor shall require that the subcontractor shall provide and maintain the insurance coverage(s) set forth herein, naming **Railway** as an additional insured, and shall require that the subcontractor shall release, defend, and indemnify **Railway** to the same extent and under the same terms and conditions as Contractor is required to release, defend, and indemnify **Railway** herein.

Failure to provide evidence as required by this section shall entitle, but not require, **Railway** to terminate this **Agreement** immediately. Acceptance of a certificate that does not comply with this section shall not operate as a waiver of Contractor's obligations hereunder.

The fact that insurance (including, without limitation, self-insurance) is obtained by Contractor shall not be deemed to release or diminish the liability of Contractor including, without limitation, liability under the indemnity provisions of this **Agreement**. Damages recoverable by **Railway** shall not be limited by the amount of the required insurance coverage.

In the event of a claim or lawsuit involving **Railway** arising out of this agreement, Contractor will make available any required policy covering such claim or lawsuit.

These insurance provisions are intended to be a separate and distinct obligation on the part of the Contractor. Therefore, these provisions shall be enforceable and Contractor shall be bound thereby regardless of whether or not indemnity provisions are determined to be enforceable in the jurisdiction in which the work covered hereunder is performed.

For purposes of this section, **Railway** means "Burlington Northern Santa Fe LLC", "BNSF RAILWAY COMPANY" and the subsidiaries, successors, assigns and affiliates of each.

Section 4. EXHIBIT "C" CONTRACTOR REQUIREMENTS

The Contractor must observe and comply with all provisions, obligations, requirements and limitations contained in the Contract, and the Contractor Requirements set forth on Exhibit "C" attached to the Contract and this Agreement, , including, but not be limited to, payment of all costs incurred for any damages to Railway roadbed, tracks, and/or appurtenances thereto, resulting from use, occupancy, or presence of its employees, representatives, or agents or subcontractors on or about the construction site.

Section 5. TRAIN DELAY

Contractor is responsible for and hereby indemnifies and holds harmless Railway (including its affiliated railway companies, and its tenants) for, from and against all damages arising from any unscheduled delay to a freight or passenger train which affects Railway's ability to fully utilize its equipment and to meet customer service and contract obligations. Contractor will be billed, as further provided below, for the economic losses arising from loss of use of equipment, contractual loss of incentive pay and bonuses and contractual penalties resulting from

train delays, whether caused by Contractor, or subcontractors, or by the Railway performing work under this Agreement. Railway agrees that it will not perform any act to unnecessarily cause train delay.

For loss of use of equipment, Contractor will be billed the current freight train hour rate per train as determined from Railway's records. Any disruption to train traffic may cause delays to multiple trains at the same time for the same period.

Additionally, the parties acknowledge that passenger, U.S. mail trains and certain other grain, intermodal, coal and freight trains operate under incentive/penalty contracts between Railway and its customer(s). Under these arrangements, if Railway does not meet its contract service commitments, Railway may suffer loss of performance or incentive pay and/or be subject to penalty payments. Contractor is responsible for any train performance and incentive penalties or other contractual economic losses actually incurred by Railway which are attributable to a train delay caused by Contractor or its subcontractors.

The contractual relationship between Railway and its customers is proprietary and confidential. In the event of a train delay covered by this Agreement, Railway will share information relevant to any train delay to the extent consistent with Railway confidentiality obligations. Damages for train delay are currently \$382.20 per hour per incident. **THE RATE THEN IN EFFECT AT THE TIME OF PERFORMANCE BY THE CONTRACTOR HEREUNDER WILL BE USED TO CALCULATE THE ACTUAL COSTS OF TRAIN DELAY PURSUANT TO THIS AGREEMENT.**

Contractor and its subcontractors must give Railway's Roadmaster John Wright at Office: 817-224-7009 or Cell: 254-654-2269 and email: John.Wright3@bnsf.com representative four (4) weeks advance notice of the times and dates for proposed work windows. Railway and Contractor will establish mutually agreeable work windows for the project. Railway has the right at any time to revise or change the work windows due to train operations or service obligations. Railway will not be responsible for any additional costs or expenses resulting from a change in work windows. Additional costs or expenses resulting from a change in work windows shall be accounted for in Contractor's expenses for the project.

Contractor and subcontractors must plan, schedule, coordinate and conduct all Contractor's work so as to not cause any delays to any trains.

Kindly acknowledge receipt of this letter by signing and returning to the Railway two original copies of this letter, which, upon execution by Railway, will constitute an Agreement between us.

Contractor

BNSF Railway

By: _____

By: _____

Printed Name: _____

Name: Timothy J. Huya
Manager Public Projects

Title: _____

Contact Person: _____

Accepted and effective this _____ day of
_____ 20__.

Address: _____

City: _____

State: _____ Zip: _____

Phone: _____

Fax: _____

Contact Person Email: _____

Contact Person Cell #: _____

SECTION REF

REFERENCE INFORMATION

BNSF RAILWAY CONTRACTOR REQUIREMENTS

EXHIBIT "C"

CONTRACTOR REQUIREMENTS

1.01 General:

- **1.01.01** The Contractor must cooperate with **BNSF RAILWAY COMPANY**, hereinafter referred to as "**Railway**" where work is over or under on or adjacent to Railway property and/or right-of-way, hereafter referred to as "**Railway Property**", during the construction of the **curbing and the roadway approaches on SW Alsbury Boulevard (DOT No. 020664T) located at railroad milepost 330.66 and the closure and removal of the roadway approaches and installation of permanent end-of-road treatments at County Road 921 (DOT No. 020460G) located at railroad milepost 331.33 on Railroad's Fort Worth Subdivision, Line Segment 7500 in Burleson, Texas.**
- **1.01.02** The Contractor must execute and deliver to the Railway duplicate copies of the Exhibit "C-1" Agreement, in the form attached hereto, obligating the Contractor to provide and maintain in full force and effect the insurance called for under Section 3 of said Exhibit "C-1". Questions regarding procurement of the Railroad Protective Liability Insurance should be directed to Rosa Martinez at Marsh, USA, 214-303-8519.
- **1.01.03** The Contractor must plan, schedule and conduct all work activities so as not to interfere with the movement of any trains on Railway Property.
- **1.01.04** The Contractor's right to enter Railway's Property is subject to the absolute right of Railway to cause the Contractor's work on Railway's Property to cease if, in the opinion of Railway, Contractor's activities create a hazard to Railway's Property, employees, and/or operations. Railway will have the right to stop construction work on the Project if any of the following events take place: (i) Contractor (or any of its subcontractors) performs the Project work in a manner contrary to the plans and specifications approved by Railway; (ii) Contractor (or any of its subcontractors), in Railway's opinion, prosecutes the Project work in a manner which is hazardous to Railway property, facilities or the safe and expeditious movement of railroad traffic; (iii) the insurance described in the attached Exhibit C-1 is canceled during the course of the Project; or (iv) Contractor fails to pay Railway for the Temporary Construction License or the Easement. The work stoppage will continue until all necessary actions are taken by Contractor or its subcontractor to rectify the situation to the satisfaction of Railway's Division Engineer or until additional insurance has been delivered to and accepted by Railway. In the event of a breach of (i) this Agreement, (ii) the Temporary Construction License, or (iii) the Easement, Railway may immediately terminate the Temporary Construction License or the Easement. Any such work stoppage under this provision will not give rise to any liability on the part of Railway. Railway's right to stop the work is in addition to any other rights Railway may have including, but not limited to, actions or suits for damages or lost profits. In the event that Railway desires to stop construction work on the Project, Railway agrees to immediately notify the following individual in writing:

Aaron Russell
Director of Public Works
City of Burleson
1725 SE John Jones Road
Burleson, TX 76028-4296
Phone: 817-426-9830
Fax: 817-426-9363
Email: arussell@burlesontx.com

- **1.01.05** The Contractor is responsible for determining and complying with all Federal, State and Local Governmental laws and regulations, including, but not limited to environmental laws and regulations (including but not limited to the Resource Conservation and Recovery Act, as amended; the Clean Water Act, the Oil Pollution Act, the Hazardous Materials Transportation Act, CERCLA), and health and safety laws and regulations. The Contractor hereby indemnifies, defends and holds harmless Railway for, from and against all fines or penalties imposed or assessed by Federal, State and Local Governmental Agencies against the Railway which arise out of Contractor's work under this Agreement.
- **1.01.06** The Contractor must notify **City of Burleson (Aaron Russel) at 817-426-9830** and Railway's Manager Public Projects, telephone number **817-352-2902** at least thirty (30) calendar days before commencing any work on Railway Property. Contractor's notification to Railway must refer to Railway's files **020664T and 020460G**.
- **1.01.07** For any bridge demolition and/or falsework above any tracks or any excavations located with any part of the excavations located within, whichever is greater, twenty-five (25) feet of the nearest track or intersecting a slope from the plane of the top of rail on a 2 horizontal to 1 vertical slope beginning at eleven (11) feet from centerline of the nearest track, both measured perpendicular to center line of track, the Contractor must furnish the Railway five sets of working drawings showing details of construction affecting Railway Property and tracks. The working drawing must include the proposed method of installation and removal of falsework, shoring or cribbing, not included in the contract plans and two sets of structural calculations of any falsework, shoring or cribbing. For all excavation and shoring submittal plans, the current "BNSF-UPRR Guidelines for Temporary Shoring" must be used for determining the design loading conditions to be used in shoring design, and all calculations and submittals must be in accordance with the current "BNSF-UPRR Guidelines for Temporary Shoring". All submittal drawings and calculations must be stamped by a registered professional engineer licensed to practice in the state the project is located. All calculations must take into consideration railway surcharge loading and must be designed to meet American Railway Engineering and Maintenance-of-Way Association (previously known as American Railway Engineering Association) Coopers E-80 live loading standard. All drawings and calculations must be stamped by a registered professional engineer licensed to practice in the state the project is located. The Contractor must not begin work until notified by the Railway that plans have been approved. The Contractor will be required to use lifting devices such as, cranes and/or winches to place or to remove any falsework over Railway's tracks. In no case will the Contractor be relieved of responsibility for results obtained by the implementation of said approved plans.

- **1.01.08** Subject to the movement of Railway's trains, Railway will cooperate with the Contractor such that the work may be handled and performed in an efficient manner. The Contractor will have no claim whatsoever for any type of damages or for extra or additional compensation in the event his work is delayed by the Railway.

1.02 Contractor Safety Orientation

- **1.02.01** No employee of the Contractor, its subcontractors, agents or invitees may enter Railway Property without first having completed Railway's Engineering Contractor Safety Orientation, found on the web site www.bnsfcontractor.com. The Contractor must ensure that each of its employees, subcontractors, agents or invitees completes Railway's Engineering Contractor Safety Orientation through internet sessions before any work is performed on the Project. Additionally, the Contractor must ensure that each and every one of its employees, subcontractors, agents or invitees possesses a card certifying completion of the Railway Contractor Safety Orientation before entering Railway Property. The Contractor is responsible for the cost of the Railway Contractor Safety Orientation. The Contractor must renew the Railway Contractor Safety Orientation annually. Further clarification can be found on the web site or from the Railway's Representative.

1.03 Railway Requirements

- **1.03.01** The Contractor must take protective measures as are necessary to keep railway facilities, including track ballast, free of sand, debris, and other foreign objects and materials resulting from his operations. Any damage to railway facilities resulting from Contractor's operations will be repaired or replaced by Railway and the cost of such repairs or replacement must be paid for by the CONTRACTOR.
- **1.03.02** INTENTIONALLY LEFT BLANK. (no blasting operations on this project)
- **1.03.03** The Contractor must abide by the following temporary clearances during construction:
 - 15'-0" Horizontally from centerline of nearest track
 - 21'-6" Vertically above top of rail
 - 27'-0" Vertically above top of rail for electric wires carrying less than 750 volts
 - 28'-0" Vertically above top of rail for electric wires carrying 750 volts to 15,000 volts
 - 30'-0" Vertically above top of rail for electric wires carrying 15,000 volts to 20,000 volts
 - 34'-0" Vertically above top of rail for electric wires carrying more than 20,000 volts

- **1.03.04** Upon completion of construction, the following clearances shall be maintained:
 - 25' Horizontally from centerline of nearest track
 - 23' 6" Vertically above top of rail
- **1.03.05** Any infringement within State statutory clearances due to the Contractor's operations must be submitted to the Railway and to the **City of Burleson** and must not be undertaken until approved in writing by the Railway, and until the **City of Burleson** has obtained any necessary authorization from the State Regulatory Authority for the infringement. No extra compensation will be allowed in the event the Contractor's work is delayed pending Railway approval, and/or the State Regulatory Authority's approval.
- **1.03.06** In the case of impaired vertical clearance above top of rail, Railway will have the option of installing tell-tales or other protective devices Railway deems necessary for protection of Railway operations. The cost of tell-tales or protective devices will be borne by the Agency.
- **1.03.07** The details of construction affecting the Railway's Property and tracks not included in the contract plans must be submitted to the Railway by **City of Burleson** for approval before work is undertaken and this work must not be undertaken until approved by the Railway.
- **1.03.08** At other than public road crossings, the Contractor must not move any equipment or materials across Railway's tracks until permission has been obtained from the Railway. The Contractor must obtain a "Temporary Construction Crossing Agreement" from the Railway prior to moving his equipment or materials across the Railways tracks. The temporary crossing must be gated and locked at all times when not required for use by the Contractor. The temporary crossing for use of the Contractor will be constructed and, at the completion of the project, removed at the expense of the Contractor.
- **1.03.09** Discharge, release or spill on the Railway Property of any hazardous substances, oil, petroleum, constituents, pollutants, contaminants, or any hazardous waste is prohibited and Contractor must immediately notify the **Railway's Resource Operations Center at 1(800) 832-5452**, of any discharge, release or spills in excess of a reportable quantity. Contractor must not allow Railway Property to become a treatment, storage or transfer facility as those terms are defined in the Resource Conservation and Recovery Act or any state analogue.
- **1.03.10** The Contractor upon completion of the work covered by this contract, must promptly remove from the Railway's Property all of Contractor's tools, equipment, implements and other materials, whether brought upon said property by said Contractor or any Subcontractor, employee or agent of Contractor or of any Subcontractor, and must cause Railway's Property to be left in a condition acceptable to the Railway's representative.

1.04 Contractor Roadway Worker on Track Safety Program and Safety Action Plan:

- **1.04.01** Each Contractor that will perform work within 25 feet of the centerline of a track must develop and implement a Roadway Worker Protection/On Track Safety Program and

work with Railway Project Representative to develop an on track safety strategy as described in the guidelines listed in the on track safety portion of the Safety Orientation. This Program must provide Roadway Worker protection/on track training for all employees of the Contractor, its subcontractors, agents or invitees. This training is reinforced at the job site through job safety briefings. Additionally, each Contractor must develop and implement the Safety Action Plan, as provided for on the web site www.contractororientation.com, which will be made available to Railway prior to commencement of any work on Railway Property. During the performance of work, the Contractor must audit its work activities. The Contractor must designate an on-site Project Supervisor who will serve as the contact person for the Railway and who will maintain a copy of the Safety Action Plan, safety audits, and Material Safety Datasheets (MSDS), at the job site.

1.05 Railway Flagger Services:

- **1.05.01** The Contractor must give Railway's **Roadmaster (John Wright) at Office # 817-224-7009 or Cell # 254-654-2269 or e-mail: John.Wright3@bnsf.com** a minimum of thirty (30) calendar days advance notice when flagging services will be required so that the Roadmaster can make appropriate arrangements (i.e., bulletin the flagger's position). If flagging services are scheduled in advance by the Contractor and it is subsequently determined by the parties hereto that such services are no longer necessary, the Contractor must give the Roadmaster five (5) working days advance notice so that appropriate arrangements can be made to abolish the position pursuant to union requirements.
- **1.05.02** Unless determined otherwise by Railway's Project Representative, Railway flagger will be required and furnished when Contractor's work activities are located over, under and/or within twenty-five (25) feet measured horizontally from centerline of the nearest track and when cranes or similar equipment positioned beyond 25-feet from the track centerline could foul the track in the event of tip over or other catastrophic occurrence, but not limited thereto for the following conditions:
 - **1.05.02a** When, upon inspection by Railway's Representative, other conditions warrant.
 - **1.05.02b** When any excavation is performed below the bottom of tie elevation, if, in the opinion of Railway's representative, track or other Railway facilities may be subject to movement or settlement.
 - **1.05.02c** When work in any way interferes with the safe operation of trains at timetable speeds.
 - **1.05.02d** When any hazard is presented to Railway track, communications, signal, electrical, or other facilities either due to persons, material, equipment or blasting in the vicinity.
 - **1.05.02e** Special permission must be obtained from the Railway before moving heavy or cumbersome objects or equipment which might result in making the track impassable.
- **1.05.03** Flagging services will be performed by qualified Railway flaggers.

- **1.05.03a** Flagging crew generally consists of one employee. However, additional personnel may be required to protect Railway Property and operations, if deemed necessary by the Railways Representative.
- **1.05.03b** Each time a flagger is called, the minimum period for billing will be the eight (8) hour basic day.
- **1.05.03c** The cost of flagger services provided by the Railway will be borne by the **CONTRACTOR**. The estimated cost for one (1) flagger is approximately between \$800.00-\$1,600.00 for an eight (8) hour basic day with time and one-half or double time for overtime, rest days and holidays. The estimated cost for each flagger includes vacation allowance, paid holidays, Railway and unemployment insurance, public liability and property damage insurance, health and welfare benefits, vehicle, transportation, meals, lodging, radio, equipment, supervision and other costs incidental to performing flagging services. Negotiations for Railway labor or collective bargaining agreements and rate changes authorized by appropriate Federal authorities may increase actual or estimated flagging rates. **THE FLAGGING RATE IN EFFECT AT THE TIME OF PERFORMANCE BY THE CONTRACTOR HEREUNDER WILL BE USED TO CALCULATE THE ACTUAL COSTS OF FLAGGING PURSUANT TO THIS PARAGRAPH.**
- **1.05.03d INTENTIONALLY LEFT BLANK.**

1.06 Contractor General Safety Requirements

- **1.06.01** Work in the proximity of railway track(s) is potentially hazardous where movement of trains and equipment can occur at any time and in any direction. All work performed by contractors within 25 feet of any track must be in compliance with FRA Roadway Worker Protection Regulations.
- **1.06.02** Before beginning any task on Railway Property, a thorough job safety briefing must be conducted with all personnel involved with the task and repeated when the personnel or task changes. If the task is within 25 feet of any track, the job briefing must include the Railway's flagger, as applicable, and include the procedures the Contractor will use to protect its employees, subcontractors, agents or invitees from moving any equipment adjacent to or across any Railway track(s).
- **1.06.03** Workers must not work within 25 feet of the centerline of any track without an on track safety strategy approved by the Railway's Project Representative. When authority is provided, every contractor employee must know: (1) who the Railway flagger is, and how to contact the flagger, (2) limits of the authority, (3) the method of communication to stop and resume work, and (4) location of the designated places of safety. Persons or equipment entering flag/work limits that were not previously job briefed, must notify the flagger immediately, and be given a job briefing when working within 25 feet of the center line of track.

- **1.06.04** When Contractor employees are required to work on the Railway Property after normal working hours or on weekends, the Railway's representative in charge of the project must be notified. A minimum of two employees must be present at all times.
- **1.06.05** Any employees, agents or invitees of Contractor or its subcontractors under suspicion of being under the influence of drugs or alcohol, or in the possession of same, will be removed from the Railway's Property and subsequently released to the custody of a representative of Contractor management. Future access to the Railway's Property by that employee will be denied.
- **1.06.06** Any damage to Railway Property, or any hazard noticed on passing trains must be reported immediately to the Railway's representative in charge of the project. Any vehicle or machine which may come in contact with track, signal equipment, or structure (bridge) and could result in a train derailment must be reported immediately to the Railway representative in charge of the project and to the Railway's Resource Operations Center at 1(800) 832-5452. Local emergency numbers are to be obtained from the Railway representative in charge of the project prior to the start of any work and must be posted at the job site.
- **1.06.07** For safety reasons, all persons are prohibited from having pocket knives, firearms or other deadly weapons in their possession while working on Railway's Property.
- **1.06.08** All personnel protective equipment (PPE) used on Railway Property must meet applicable OSHA and ANSI specifications. Current Railway personnel protective equipment requirements are listed on the web site, www.contractororientation.com, however, a partial list of the requirements include: a) safety glasses with permanently affixed side shields (no yellow lenses); b) hard hats; c) safety shoe with: hardened toes, above-the-ankle lace-up and a defined heel; and d) high visibility retro-reflective work wear. The Railway's representative in charge of the project is to be contacted regarding local specifications for meeting requirements relating to hi-visibility work wear. Hearing protection, fall protection, gloves, and respirators must be worn as required by State and Federal regulations. **(NOTE – Should there be a discrepancy between the information contained on the web site and the information in this paragraph, the web site will govern.)**
- **1.06.09 THE CONTRACTOR MUST NOT PILE OR STORE ANY MATERIALS, MACHINERY OR EQUIPMENT CLOSER THAN 25'-0" TO THE CENTER LINE OF THE NEAREST RAILWAY TRACK. MATERIALS, MACHINERY OR EQUIPMENT MUST NOT BE STORED OR LEFT WITHIN 250 FEET OF ANY HIGHWAY/RAIL AT-GRADE CROSSINGS OR TEMPORARY CONSTRUCTION CROSSING, WHERE STORAGE OF THE SAME WILL OBSTRUCT THE VIEW OF A TRAIN APPROACHING THE CROSSING. PRIOR TO BEGINNING WORK, THE CONTRACTOR MUST ESTABLISH A STORAGE AREA WITH CONCURRENCE OF THE RAILWAY'S REPRESENTATIVE.**
- **1.06.10** Machines or vehicles must not be left unattended with the engine running. Parked machines or equipment must be in gear with brakes set and if equipped with blade, pan or bucket, they must be lowered to the ground. All machinery and equipment left unattended on

Railway's Property must be left inoperable and secured against movement. (See internet Engineering Contractor Safety Orientation program for more detailed specifications)

- **1.06.11** Workers must not create and leave any conditions at the work site that would interfere with water drainage. Any work performed over water must meet all Federal, State and Local regulations.
- **1.06.12** All power line wires must be considered dangerous and of high voltage unless informed to the contrary by proper authority. For all power lines the minimum clearance between the lines and any part of the equipment or load must be; 200 KV or below - 15 feet; 200 to 350 KV - 20 feet; 350 to 500 KV - 25 feet; 500 to 750 KV - 35 feet; and 750 to 1000 KV - 45 feet. If capacity of the line is not known, a minimum clearance of 45 feet must be maintained. A person must be designated to observe clearance of the equipment and give a timely warning for all operations where it is difficult for an operator to maintain the desired clearance by visual means.

1.07 Excavation:

- **1.07.01** Before excavating, the Contractor must determine whether any underground pipe lines, electric wires, or cables, including fiber optic cable systems are present and located within the Project work area. The Contractor must determine whether excavation on Railway's Property could cause damage to buried cables resulting in delay to Railway traffic and disruption of service to users. Delays and disruptions to service may cause business interruptions involving loss of revenue and profits. Before commencing excavation, the Contractor must contact **BNSF's Roadmaster (John Wright) at 817-224-7009 and BNSF's Supervisor Construction Signals (Dwayne Tiffin) at 817-740-7384.** All underground and overhead wires will be considered HIGH VOLTAGE and dangerous until verified with the company having ownership of the line. **It is the Contractor's responsibility to notify any other companies that have underground utilities in the area and arrange for the location of all underground utilities before excavating.**
- **1.07.02** The Contractor must cease all work and notify the Railway immediately before continuing excavation in the area if obstructions are encountered which do not appear on drawings. If the obstruction is a utility and the owner of the utility can be identified, then the Contractor must also notify the owner immediately. If there is any doubt about the location of underground cables or lines of any kind, no work must be performed until the exact location has been determined. There will be no exceptions to these instructions.
- **1.07.03** All excavations must be conducted in compliance with applicable OSHA regulations and, regardless of depth, must be shored where there is any danger to tracks, structures or personnel.
- **1.07.04** Any excavations, holes or trenches on the Railway's Property must be covered, guarded and/or protected when not being worked on. When leaving work site areas at night and over weekends, the areas must be secured and left in a condition that will ensure that

Railway employees and other personnel who may be working or passing through the area are protected from all hazards. All excavations must be back filled as soon as possible.

1.08 Hazardous Waste, Substances and Material Reporting:

- **1.08.01** If Contractor discovers any hazardous waste, hazardous substance, petroleum or other deleterious material, including but not limited to any non-containerized commodity or material, on or adjacent to Railway's Property, in or near any surface water, swamp, wetlands or waterways, while performing any work under this Agreement, Contractor must immediately: (a) notify the Railway's Resource Operations Center at 1(800) 832-5452, of such discovery; (b) take safeguards necessary to protect its employees, subcontractors, agents and/or third parties; and (c) exercise due care with respect to the release, including the taking of any appropriate measure to minimize the impact of such release.

1.09 Personal Injury Reporting

- **1.09.01** The Railway is required to report certain injuries as a part of compliance with Federal Railroad Administration (FRA) reporting requirements. Any personal injury sustained by an employee of the Contractor, subcontractor or Contractor's invitees while on the Railway's Property must be reported immediately (by phone mail if unable to contact in person) to the Railway's representative in charge of the project. The Non-Employee Personal Injury Data Collection Form contained herein is to be completed and sent by Fax to the Railway at 1(817) 352-7595 and to the Railway's Project Representative no later than the close of shift on the date of the injury.



NON-EMPLOYEE PERSONAL INJURY DATA COLLECTION

(If injuries are in connection with rail equipment accident/incident, highway rail grade crossing accident or automobile accident, ensure that appropriate information is obtained, forms completed and that data entry personnel are aware that injuries relate to that specific event.)

Injured Person Type:

- Passenger on train (C)
- Non-employee (N)
(i.e., emp of another railroad, or, non-BNSF emp involved in vehicle accident, including company vehicles)
- Contractor/safety sensitive (F)
- Contractor/non-safety sensitive (G)
- Volunteer/safety sensitive (H)
- Volunteer/other non-safety sensitive (I)
- Non-trespasser (D) - to include highway users involved in highway rail grade crossing accidents who did not go around or through gates
- Trespasser (E) - to include highway users involved in highway rail grade crossing accidents who went around or through gates
- Non-trespasser (J) - Off railroad property

If train involved, Train ID:

Transmit attached information to Accident/Incident Reporting Center by:

Fax 1-817-352-7595 or by Phone 1-800-697-6736 or email to: Accident-Reporting.Center@BNSF.com

AND COPY TO: ROADMASTER FAX 817-224-7023 & RAILWAY MANAGER PUBLIC PROJECTS FAX 817-352-2912

Officer Providing Information:

(Name)

(Employee No.)

(Phone #)

REPORT PREPARED TO COMPLY WITH FEDERAL ACCIDENT REPORTING REQUIREMENTS AND PROTECTED FROM DISCLOSURE PURSUANT TO 49 U.S.C. 20903 AND 83 U.S.C. 490

NON-EMPLOYEE PERSONAL INJURY DATA COLLECTION

INFORMATION REQUIRED TO BE COLLECTED PURSUANT TO FEDERAL REGULATION. IT SHOULD BE USED FOR COMPLIANCE WITH FEDERAL REGULATIONS ONLY AND IT IS NOT INTENDED TO PRESUME ACCEPTANCE OF RESPONSIBILITY OR LIABILITY.

1. Accident City/St: _____ 2. Date: _____ Time: _____

County: _____ 3. Temperature: _____ 4. Weather: _____
(if non BNSF location)

5. Mile Post / Line Segment: _____

Driver's License No (and state) or other ID: _____ SSN (required): _____

Name (last, first, mi): _____

Address: _____ City: _____ St: _____ Zip: _____

Date of Birth: _____ and/or Age: _____ Gender: _____
(if available)

Employee Number: _____ Employer: _____

Injury: _____ I.D. Body Part: _____
(i.e., Laceration, etc.) (i.e., Hand, etc.)

Description of Accident (To include location, action, result, etc.): _____

Treatment:

- First Aid Only _____
- Required Medical Treatment _____
- Other Medical Treatment _____

Dr. Name: _____ Date: _____

Dr. Address: _____
Street: _____ City: _____ St: _____ Zip: _____

Hospital Name: _____

Hospital Address: _____
Street: _____ City: _____ St: _____ Zip: _____

Diagnosis: _____

**REPORT PREPARED TO COMPLY WITH FEDERAL ACCIDENT REPORTING REQUIREMENTS
AND PROTECTED FROM DISCLOSURE PURSUANT TO 49 U.S.C. 20903 AND 83 U.S.C. 490**

SECTION REF

REFERENCE INFORMATION

**33 05 01.09 - POLYVINYL CHLORIDE (PVC) PRESSURE PIPE
AND FITTINGS**

33 05 01.09 POLYVINYL CHLORIDE (PVC) PRESSURE PIPE AND FITTINGS

1.00 GENERAL

1.01 WORK INCLUDED

- A. Furnish labor, materials, equipment and incidentals necessary to install polyvinyl chloride (PVC) pressure pipe, appurtenances, and fittings to the diameters indicated for water supply and wastewater pressure piping. Trenching, backfilling, and pipe embedment shall be in accordance with Section 31 23 33 "Trenching and Backfill."

1.02 QUALITY ASSURANCE

- A. Certification: Domestic water piping shall be approved by the Underwriters Laboratory and shall be accepted by the State Fire Insurance Commission for use in water distribution systems. PVC water pipe shall bear the seal of approval (or "NSF" mark) of the National Sanitation Foundation Testing Laboratory for potable water pipe.
- B. Design Criteria: The maximum allowable load for PVC pipe installations shall produce a maximum deflection of 4 percent.

1.03 SUBMITTALS

- A. Submittals shall be in accordance with Section 01 33 00 "Document Management" and shall include:
 - 1. Certified Test Reports from the Manufacturer's testing facility or an approved testing laboratory.
 - 2. Shop Drawing including the following information:
 - a. Manufacturer.
 - b. Dimension ratio.
 - c. Joint types.
 - d. Gaskets material.
 - e. Means of restraint.
 - f. Manufacturer's recommendation for maximum deflected joint angle and minimum longitudinal bending radius
 - g. Thrust restraint lengths and lay schedule as Shop Drawing. Lay schedule shall include the following:
 - 1). Pipe class.
 - 2). Joint type.
 - 3). Fittings.
 - 4). Stationing.
 - 5). Transitions.
 - 6). Joint deflection.

3. Shop Drawing of Detectable Warning Tape.

1.04 REFERENCE SPECIFICATIONS

- A. Section 01 33 00 "Document Management."
- B. Section 01 40 00 "Quality Management."
- C. Section 31 23 33 "Trenching and Backfill."
- D. Section 33 05 05.31 "Hydrostatic Testing"
- E. Section 33 10 13 "Disinfecting of Water Utility Distribution."

1.05 STANDARDS

- A. The applicable provisions of the following standards shall apply as if written here in their entirety. PVC piping and fittings shall be in full compliance with the applicable standards and specifications for each type of plastic pipe involved. Pipe may be rejected for failure to comply with any requirement of this Section.

1. ASTM International (ASTM) Standards:

ASTM D1784	Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds
ASTM D1785	Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120
ASTM D2241	Standard Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated PVC Pipe (SDR) Series
ASTM D2464	Standard Specification for Threaded Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80
ASTM D2466	Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings Schedule 40
ASTM D2467	Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80
ASTM D2855	Standard Practice for the Two-Step (Primer and Solvent Cement) Method of Joining Poly (Vinyl Chloride) (PVC) or Chlorinated Poly (Vinyl Chloride) (CPVC) Pipe and Piping Components with Tapered Sockets
ASTM D3139	Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals
ASTM F1674	Standard Test Method for Joint Restraint Products for Use with PVC Pipe

2. American Water Works Association (AWWA) Standards:

AWWA C104	Cement-Mortar Lining for Ductile Iron Pipe and Fittings
AWWA C105	Polyethylene Encasement for Ductile-Iron Pipe Systems
AWWA C110	Ductile-Iron and Gray-Iron Fittings
AWWA C153	Ductile-Iron Compact Fittings

AWWA C605	Underground Installation of Polyvinyl Chloride (PVC) and Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe and Fittings
AWWA C900	Poly Vinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 through 60 Inches (100 mm Through 1,500 mm)
AWWA M23	PVC Pipe – Design and Installation.
AWWA M41	Ductile – Iron Pipe and Fittings

3. NSF International (NSF):

NSF 61	Drinking Water System Components – Health Effects
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4. Underwriters Laboratories, Inc. (UL).

1.06 DELIVERY AND STORAGE

- A. Store PVC material so that there is no exposure to sunlight.

2.00 PRODUCTS

2.01 MATERIALS

A. PVC Pressure Piping:

1. Smaller than 4 inches in size shall be Type 1, Grade 1, Polyvinyl Chloride, Schedule 40 pipe conforming to ASTM D1785.
2. For pipe 2 inches in diameter and smaller, joints shall be glued.
3. For pipe larger than 2 inches in diameter, joints shall be bell and spigot push-on type as specified in ASTM D3139.
4. PVC Pressure Pipe for potable water shall meet the requirements of NSF 61.
5. PVC Pressure Pipe for Sanitary Sewer shall conform to either C900 or ASTM D2241.

- B. Fittings: 3- through 24-inch ductile iron and conforming to AWWA C110 or AWWA C153. Fittings for piping smaller than 3 inches shall be in accordance with ASTM D2466.

- C. Thrust Restraint: Thrust restraint devices shall be Mega-lug or approved equal and shall be factory tested and pressure rated in accordance with ASTM F1674.

1. Joint restraint devices shall be designed specifically for use with PVC pipe of the joint type and pressure rating specified.
2. Restrained joints shall be used for a sufficient distance from each bend, tee, plug, valve or other fitting to resist thrust which will be developed at the design pressure of the pipe.
3. The length of pipe with restrained joints to resist thrust forces shall be the sole responsibility of and determined by the Pipe Manufacturer using the following parameters:
 - a. Laying condition equal to AWWA C605 Type 3 bedding.
 - b. No thrust restraint contribution shall be allowed for pipe in casing.

- c. Soil density = 100 pcf.
 - d. Concrete thrust blocking shall not be accounted for in joint restraint calculations.
- D. Detectable Warning Tape:
- 1. Provide detectable warning tape as follows:
 - a. Thickness: 5.0 mil overall thickness.
 - b. Width: 3 inch minimum.
 - c. Weight: 27.5 pounds per inch per 1000 square feet.
 - d. Triple layer with:
 - 1). Minimum thickness 0.35 mils solid aluminum foil encased in a protective inert plastic jacket.
 - 2). 100 percent virgin low density polyethylene.
 - 3). Impervious to all known alkalis, acids, chemical reagents and solvents within soil.
 - 4). Aluminum foil visible to both sides.
 - e. Locatable by conductive and inductive methods.
 - f. Printing encased to avoid ink rub-off.
 - g. Color and Legends:
 - 1). Potable Water Lines:
 - a). Color: Blue (in accordance with APWA Uniform Color Code).
 - b). Legend: Caution Potable Water Line Below (repeated every 24 inches).
 - 2). Reclaimed Water Lines:
 - a). Color: Purple (in accordance with APWA Uniform Color Code).
 - b). Legend: Caution Reclaimed Water Line Below (repeated every 24 inches).
 - 3). Sewer Line:
 - a). Color: Green (in accordance with APWA Uniform Color Code).
 - b). Legend: Caution Sewer Line Below (repeated every 24 inches).

2.02 MARKINGS

- A. The Pipe Manufacturer shall mark the piping with the size and appropriate AWWA/ASTM Standard designations as applicable.

3.00 EXECUTION

3.01 INSTALLATION

- A. Install pipe, fittings, and specials to the lines and grades indicated. Begin installation at the main supply line valve and make connections where indicated.

- B. Excavate trenches where required to alignment and depth specified or as required for proper installation of pipe. Carefully lower pipe, fittings, and specials into the trench to avoid damage to the pipe and/or fittings. Take necessary precautions to protect pipe during backfilling operations. Replace any damaged pipe before it is buried. Keep the pipe clean during laying operations, and seal the pipe against the entrance of objects at the close of each operating day.
- C. Place thrust restraint fittings at bends, tees, crosses, valves, and plugs in the pipe line in accordance with approved Shop Drawing lay schedule.
- D. Buried ductile iron fittings shall be double wrapped in 8mm high density polyethylene encasement in accordance with AWWA C105, repair or replace encasements which have tears, rips or punctures in the polyethylene wrap.
- E. The minimum cover for 1- to 4-inch PVC piping shall be 36 inches. For 6-inch PVC piping and larger, the minimum cover shall be 48 inches.
- F. For threaded joints not more than three threads at each pipe connection shall remain exposed after installation. Ream ends of pipe after threading and before assembly, to remove burrs. Threaded joints shall be made up with a suitable joint compound. Apply joint compound to male threads only.
- G. Solvent weld joints shall be in accordance with ASTM D2855, and shall be made generally as follows: cut square and smooth the ends of the plastic pipe and wipe clean. Apply primer and solvent cement to the outside of the pipe and the inside of the fitting socket with a small brush. Immediately push the coated surfaces snugly together and rotate the pipe approximately one-half turn to insure uniform distribution of the cement. Remove the excess cement by wiping. Cement shall be of type which welds plastic surfaces together. Cement shall be as recommended by the Pipe Manufacturer and shall be compatible with the chemical conveyed.
- H. Push-on joints shall be in accordance with the manufacturer's instructions.
- I. Use of deflected joints shall be at 75 percent of the manufacturer recommendation or longitudinal deflection shall be 133 percent of the manufacturer's minimum radius.
- J. Joint lubricant shall be as recommended by the pipe manufacturer.

3.02 FIELD CONTROL HYDROSTATIC TESTING

- A. Test PVC pressure piping for leakage by a hydrostatic pressure test in accordance with Section 33 05 05.31 "Hydrostatic Testing."

3.03 PURGING OF WATER LINES

- A. Purge, sterilize, and test the constructed water lines in accordance with Section 33 10 13 "Disinfecting of Water Utility Distribution."
 - 1. During construction operations, maintain the installed surfaces of the system, which come in contact with the City's water supply, in a sanitary condition.
 - 2. Every effort must be made to keep the inside of the pipe, fittings, and valves free of loose foreign matter.

3. Should the Contractor's carrier be required to transport potable water to the job site for main testing, sterilize tankage and piping, including pumps used to transport or transfer potable water into the main.
- B. When the entire pipeline or selected sections have been completed and are ready for use, disinfect the line or section according to the following procedures:

3.04 SERVICE CONNECTIONS

- A. Make service connections in accordance with AWWA Manual M23 "PVC Pipe - Design and Installation" and the instructions from the Manufacturer. Use a service clamp or saddle to connect 2-inch and smaller services to PVC pipe sizes 4 to 12 inches. Use a ductile iron tapped tee to connect 3-inch service connections.

3.05 FIELD QUALITY CONTROL

- A. Do not enclose or cover any Work until inspected.

END OF SECTION

SECTION REF

REFERENCE INFORMATION

33 05 23.33 - PIPELINE CROSSING

33 05 23.33 PIPELINE CROSSING

1.00 GENERAL

1.01 WORK INCLUDED

- A. Furnish labor, materials, equipment and incidentals necessary to install casing pipe or tunnel liner plates by tunnel or trenchless construction methods as specified herein. This Section sets forth the requirements for construction and installation of pipelines crossing railroads using horizontal auger boring, a jacking shield, or hand tunneling methods.

1.02 QUALITY ASSURANCE

A. Qualifications:

- 1. Tunnel or Trenchless Contractor: Unless specified otherwise, tunnel or trenchless construction shall be performed by a competent, experienced contractor or subcontractor. The tunnel or trenchless contractor or subcontractor shall have a satisfactory experience record of at least 5 years engaged in similar work and shall demonstrate successful completion of at least three previous projects within the last 5 years using tunnel or trenchless methods similar to those proposed involving installation of casing pipe or tunnel liner plate equal to or greater than the diameter as that proposed and in similar ground conditions anticipated for this Project.
- B. Performance Requirements: Horizontal or vertical variation in the final position of the casing pipe or tunnel liner plate from the proposed line and grade shall be permitted only to the extent of the tolerances provided herein, provided that such variation shall be regular and only in the direction that will not detrimentally affect the installation or intended function of the carrier pipe in the opinion of the Engineer.

1.03 SUBMITTALS

A. Submittals shall include:

- 1. Copies of permit(s) as required herein for construction of the pipeline crossing, if required to be obtained by the Contractor.
- 2. Qualifications for the Contractor or subcontractor who is performing the tunnel or trenchless construction.
- 3. Pipeline Crossing Work Plan, which shall include, but not be limited to the following:
 - a. Site layout plan, including a plan view of the Contractor's proposed operations, including but not limited to dimensions of the pit excavations, dimensions of equipment to be utilized, location where excavated materials will be placed, location of where casing pipe or tunnel liner plate will be stored prior to installation, etc.
 - b. Product data, description of, and operation manual for auger boring, jacking shield, or hand tunneling equipment proposed to be used. Include capacity, number, and arrangement of hydraulic jacks as applicable. Provide details of thrust ring, jacking controls, and pressure gages as applicable.
 - c. Means and methods to control of line and grade of equipment.

- d. Theoretical volume calculation for the proposed excavation, including an estimated bulking factor.
 - e. Description of the proposed procedures for performing tunnel or trenchless excavation, including handling and disposal of excavated materials.
 - f. Description of the proposed procedures for installation of casing pipe, including jointing and welding procedures of casing pipe, as applicable.
 - g. Description of the proposed procedures for installation of tunnel liner plates, if used.
 - h. Product Data and proposed procedures for use of pipe lubrication materials proposed for use for installation of the casing pipe, if used.
 - i. Description of the proposed procedures for installation of the carrier pipe, including Product Data and Shop Drawings of casing spacers or insulators and end seals and dimensions and proposed locations of such to ensure line and grade.
 - j. Mix design for the proposed contact grout and backfill grout, including Product Data and applicable test reports for each constituent of the mix design.
 - k. Description of the proposed procedures for batching, mixing, pumping, and placement of contact grout and backfill grout.
4. Shop Drawings and mill test certificates of the casing pipe from the casing pipe manufacturer, including jointing and welding requirements, lubrication/grout ports or fittings, joint details, and other items to be furnished with and fabricated for the pipe. Include dimensions, tolerances, wall thicknesses, material properties and strength, and other pertinent information. Shop Drawings shall include calculations for the design of the casing pipe, including calculations for the anticipated jacking forces along the full length of the casing pipe installation and the maximum allowable jacking force that may be applied to the casing pipe without damage. Calculations shall be performed by a professional engineer licensed in the state where Project is located and retained by the Contractor. Calculations associated with the casing pipe are for record purposes only and will not be reviewed by the Engineer.
 5. Shop Drawings and mill test certificates of the tunnel liner plate and fasteners from the tunnel liner plate manufacturer. Shop Drawings shall include calculations for the design of the tunnel liner plate, including calculations for the maximum allowable jacking force that may be applied against the tunnel liner plate without damage. Calculations shall be performed by a professional engineer licensed in the state where Project is located and retained by the Contractor. Calculations associated with the tunnel liner plate are for record purposes only and will not be reviewed by the Engineer.
 6. Daily reports, to be submitted no more than 12 hours after the end of each shift, including, but not limited to the following:
 - a. Name of crew members and their classification, number of hours worked, quantity of materials installed or used, and a summary of the work activities, regardless of the amount of progress made.
 - b. Starting and ending station of excavation face and limits of installation of casing pipe or tunnel liner plate completed.

- c. Torque, jacking pressures, and other parameters measured by the excavation equipment as applicable.
 - d. Type and quantity of material excavated and removed compared to the theoretical volume.
7. As-built documentation, to be submitted no more than 1 week after completion of casing pipe or tunnel liner plate installation and another submittal no more than 1 week after completion of carrier pipe installation, which shall include, but not be limited to the following:
- a. Name of Contractor and subcontractor, if applicable, and contact information.
 - b. Date of completion of installation.
 - c. Summary of type, size, and dimensions of casing pipe, tunnel liner plate, or carrier pipe installed.
 - d. Summary of project survey information.
 - e. Plan and profile drawing, including theoretical alignment, actual installed alignment, survey benchmarks, and other pertinent information such as adjacent structures or facilities.
8. Contingency plan that includes corrective actions to be taken in the event of excessive ground movement (settlement or heave), excessive deviation from line and grade, slower than anticipated progress, stuck excavation equipment, damage to an existing utility, or encountering greater than anticipated groundwater inflows.

1.04 STANDARDS

- A. American Association of State Highway and Transportation Officials (AASHTO):

AASHTO	Standard Specifications for Highway Bridges
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- B. American Railway Engineering and Maintenance-of-Way Association (AREMA):

AREMA	Manual for Railway Engineering
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- C. American Society of Civil Engineers (ASCE):

ASCE MOP 106	Manual of Practice [for] Horizontal Auger Boring Projects
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- D. ASTM International (ASTM):

ASTM A36/ A36M	Standard Specification for Carbon Structural Steel
ASTM A123/ A123M	Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A135/ A135M	Standard Specification for Electric-Resistance-Welded Steel Pipe
ASTM A139/ A139M	Standard Specification for Electric-Fusion (Arc)-Welded Steel Pipe (NPS4 and Over)
ASTM A153/ A153M	Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware

ASTM A307	Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60,000 PSI Tensile Strength
ASTM A449	Standard Specification for Hex Cap Screws, Bolts and Studs, Steel, Heat Treated, 120/105/90 ksi Minimum Tensile Strength, General Use
ASTM A572/ A572M	Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel
ASTM A1011/ A1011M	Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength

E. American Water Works Association (AWWA):

AWWA C200	Steel Water Pipe, 6 in. (150 mm) and Larger
AWWA C206	Field Welding of Steel Water Pipe
AWWA C210	Liquid-Epoxy Coatings and Lining for Steel Water Pipe and Fittings
AWWA M11	Steel Water Pipe – A Guide for Design and Installation

F. Railroad Crossing Standards:

BNSF Railway	Utility Accommodation Policy
Union Pacific	Pipeline Installation Requirements

G. Highway or Roadway Crossing Standards:

TxDOT	Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges, Item 476, Jacking, Boring, or Tunneling Pipe or Box
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1.05 JOB CONDITIONS; PERMITS AND EASEMENT REQUIREMENTS

- A. The Contractor shall comply with all of the requirements of the BNSF Railway Company License, provide the required notifications to the BNSF Railway Company as required by the BNSF Railway Company License, and shall comply with all safety rules and regulations and training requirements established by the BNSF Railroad Company. The Contractor shall ensure that all Contractor [and subcontractor] personnel maintain current BNSF safety training certifications throughout the duration of the work as required by the BNSF Railroad Company. The safety training certifications include, but are not limited to the BNSF Railway Company Contractor Safety Orientation (<http://www.bnsfcontractor.com/>) and Railroad Education Roadway Worker Protection and Alcohol and Drug Use for all Roadway Workers (<http://www.railroadeducation.com/>).
- B. The Contractor shall pay for all costs and expenses associated with inspections, flagging services, or other safety measures provided by and/or required by BNSF Railway Company, or otherwise imposed by the BNSF Railway Company to fulfill the requirements of the BNSF Railway Company License. The costs and expenses may include, but are not limited to, those described in Article 7 of the BNSF Railway Company License, any processing fees, license fees, or insurance fees required by or for the execution of the BNSF Railway Company License, the Contractor's own costs to comply with the BNSF Railway Company License, such as the Contractor's insurance costs (e.g. Railroad Protective Liability Insurance Policy) or other costs to ensure compliance with the BNSF Railway Company's applicable

safety rules and regulations. The Contractor shall pay all invoices in accordance with the payment terms as described in Article 8 of the BNSF Railway Company License.

- C. In the event of an emergency, the Contractor shall immediately contact the BNSF Railway Company to stop railroad traffic on the affected railroad track[s]. In the event the BNSF Railway Company cannot be reached, the Contractor shall dial 911. The Contractor shall also contact of BNSF Railway Company Roadmaster, to schedule inspectors for immediate railroad inspections. If the BNSF Railway Company Roadmaster cannot be reached, the Contractor shall leave a voicemail of the emergency situation and provide the Contractor's contact information.
- D. A hard copy of approved permits shall be available on-site for the duration of the construction activity pertaining to the permit.

1.06 OPTIONS

- A. Casing Material: Unless specified otherwise, the Contractor may use steel pipe or tunnel liner plate where tunnel or trenchless construction is required for installation of carrier pipe. The material specifications for casing pipe and tunnel liner plate herein are the minimum acceptable requirements. The Contractor shall be fully responsible to ensure the materials used are of sufficient strength for the installation method chosen and the soil conditions that are actually encountered.
- B. Tunnel and Trenchless Methods: Unless specified otherwise, the Contractor may use auger boring, a jacking shield, or hand tunneling for the installation method of casing material. The Contractor shall be fully responsible to ensure the methods used are adequate for the protection of workers and the public.

1.07 DEFINITIONS

- A. Auger Boring: A technique for forming a bore from a jacking shaft to a receiving shaft by means of a rotating auger, which may include cutting tools. Casing pipe is jacked forward sequentially in a cyclic process while the auger is turning. Spoils are removed back to the jacking shaft by helically wound auger flights rotating inside the casing pipe. The equipment may have limited guidance and steering capability.
- B. Casing Pipe: A casing pipe is a pipe used to support a tunnel or trenchless excavation and subsequent installation of a carrier pipe.
- C. Jacking Shaft: An excavation from which tunnel or trenchless equipment is launched for the installation of a pipeline or conduit.
- D. Jacking Shield: A jacking shield is a fabricated steel cylinder where excavation is carried out either by machine or by hand while support, such as tunnel liner plates are installed. The shield may have limited guidance and steering capability.
- E. Pipe Jacking: Pipe jacking is a system of using hydraulic jacks from a jacking shaft to directly install pipes behind a jacking shield so that they form a continuous string of pipe in the ground.

2.00 PRODUCTS

2.01 MATERIALS

A. Casing Insulators or Spacers:

1. Casing insulators or spacers shall be specifically designed to adequately support and electrically isolate the carrier pipe within the casing pipe under all conditions. Insulators or spacers shall consist of pre-manufactured steel bands with plastic lining and plastic runners. Insulators shall fit snug over the carrier pipe and position the carrier pipe approximately in the center of the casing pipe, to provide adequate clearance between the carrier pipe bell and the casing pipe. Fasteners for insulators shall be stainless steel or cadmium plated. The number and location of casing insulators or spacers shall be determined by the manufacturer to protect carrier pipe from damage.
2. Manufacturers of casing insulators or spacers shall be:
 - a. Advance Products & Systems, LLC (<http://www.apsonline.com>).
 - b. Cascade Waterworks Manufacturing Company (<http://www.cascademfg.com>).
 - c. CCI Piping Systems (<http://www.ccipipe.com>).
 - d. Approved equal.

B. Mortar Bands: If allowed by the authority having jurisdiction, concrete cylinder pipe and mortar coated steel pipe may have thickened outside mortar bands in lieu of casing insulators or spacers. Mortar bands shall properly position the carrier pipe within the casing pipe or tunnel liner plates.

C. End Seals:

1. End seals shall be specifically designed to seal the annular space between the casing pipe and the carrier pipe at the ends of the casing pipe.
2. Manufacturers of end seals shall be:
 - a. Advance Products & Systems, LLC (<http://www.apsonline.com>).
 - b. Cascade Waterworks Manufacturing Company (<http://www.cascademfg.com>).
 - c. CCI Piping Systems (<http://www.ccipipe.com>).
 - d. Approved equal.

D. Casing Pipe: Casing pipe shall be welded steel pipe or press-fit steel pipe. Contractor shall be fully responsible for the design of the steel casing pipe, including joints, that meet or exceeds all of the requirements presented herein. Design of the casing pipe shall be performed by a licensed professional engineer licensed in the state where the Project is located as required herein.

1. Welded steel casing pipe shall have a minimum yield strength of 35,000 psi and shall conform to the requirements of ASTM A139/A139M, AWWA C200, and AWWA M11. Pipe joints of welded steel pipe shall be full butt welded in accordance with the casing pipe manufacturer's recommendations and with AWWA C206, as applicable.
2. Press-fit steel casing pipe shall conform to the requirements of ASTM A36/A36M and A572/A572M, Grade 42. Proprietary Permalok T-5 joints or similar shall be used.

3. Minimum wall thickness of steel casing pipe shall be as indicated below, as otherwise indicated in the applicable standards referenced herein, or as otherwise required by the authority having jurisdiction, and shall be considered the minimum thickness acceptable. The wall thickness of the steel casing pipe shall be increased as necessary by the Contractor to obtain the adequate strength, stiffness, buckling strength, resistance to deflection, and be able to accommodate the maximum allowable jacking load. The casing pipe shall be designed as to not allow deflection of more than 3 percent.

Nominal Diameter of Steel Casing Pipe (Inches)	Minimum Wall Thickness of Steel Casing Pipe (Inches)	
	Roadway/Highway Crossing	Railway Crossing
6 to 14	0.188	0.250
16	0.188	0.282
18	0.250	0.313
20 to 22	0.250	0.344
24	0.281	0.375
26	0.281	0.407
28	0.312	0.438
30	0.312	0.469
32	0.312	0.500
34	0.312	0.532
36	0.344	0.532
38	0.344	0.563
40	0.344	0.594
42	0.344	0.625
44 to 46	0.344	0.657
48	0.344	0.688

E. Tunnel Liner Plates:

1. Tunnel liner plates shall be fabricated from a single piece of metal and flanged on each side, each piece shall contain a grout port, and shall conform to the requirements of ASTM A1011/A1011M, with a minimum tensile strength of 42,000 psi, and a minimum yield strength of 28,000 psi. Tunnel liner plates and associated bolts and nuts shall be hot-dip galvanized.
2. Contractor shall be fully responsible for the design of the tunnel liner plates. Design of the tunnel liner plates shall be performed by a professional engineer licensed in the state where the project is located as required herein.
3. Plates shall be of uniform fabrication and those intended for one size tunnel shall be interchangeable. Welding of tunnel liner plate shall not be allowed.
4. The material used for the construction of the tunnel liner plates shall be new, unused, and suitable for the purpose intended.
5. Manufacturer of tunnel liner plates shall be:
 - a. Contech Engineered Solutions LLC (<https://www.conteches.com>).
 - b. DSI Tunneling LLC (<http://www.dsitunneling.com>).

- c. Jennmar Corporation (<https://www.jennmar.com>).
 - d. Approved equal.
6. Minimum thickness of tunnel liner plates shall be as indicated in AREMA Manual for Railway Engineering, or indicated in other applicable standards referenced herein, or as otherwise required by the authority having jurisdiction, and shall be considered the minimum thickness acceptable. The thickness of the tunnel liner plates shall be increased as necessary to obtain the adequate strength, stiffness, buckling strength, resistance to deflection and be able to accommodate the maximum allowable jacking load, as applicable. The tunnel liner plate shall be designed as to not allow deflection of more than 3 percent.

2.02 GROUT MIXES

- A. Contact grout shall consist of cement, water, and fluidizers as required to produce a satisfactory pumpable grout with a minimum compressive strength of 500 psi at 28 days.
- B. Backfill grout shall be either structural grout or cellular concrete.
 - 1. Structural grout shall consist of a mixture of sand, cement, and water with a minimum compressive strength of 4000 psi at 28 days. Admixtures may be used to control set times and prevent washout of the cement paste.
 - 2. Cellular concrete shall consist of a mixture of cement, water, and a foaming agent with a minimum compressive strength of 150 psi at 7 days and 250 psi at 28 days. Cellular concrete shall have a minimum wet density of 50 pcf, unless water is present inside the casing, where a minimum wet density of 65 pcf shall be required. The foaming agent shall conform to ASTM C869 and shall be tested in accordance with ASTM C796. No aggregate or fillers shall be used. No admixtures shall be without specific written approval from the foaming agent manufacturer.
- C. Cement used in the grout mixes shall conform to ASTM C150, Type II.
- D. Water used in the grout mixes shall conform to ASTM C94.

3.00 EXECUTION

3.01 GENERAL CONSTRUCTION PROCEDURES

- A. Contractor shall comply with all applicable requirements of permits as described or referenced herein, whether or not such permits were obtained by the Contractor.

3.02 JACKING AND RECEIVING PITS

- A. Excavation and backfill of jacking and receiving pits shall be performed in accordance with "Trenching and Backfill" and "Trench Safety" sections and as required by standards referenced herein.
- B. Contractor shall not perform excavation activities beyond the limits shown on the Drawings.
- C. Contractor shall keep the jacking and receiving pits free from standing water to the extent practical and shall perform dewatering as necessary.

- D. Upon completion of the Work described herein, Contractor shall restore the Site as required by the Contract Documents.

3.03 TUNNEL OR TRENCHLESS EXCAVATION

- A. Contractor shall commence excavation operations from the low or downstream end of the tunnel or trenchless crossing, unless otherwise specified.
- B. Contractor shall perform Work in a manner that minimizes ground settlement or heave.
- C. Contractor shall furnish all equipment and all necessary temporary electrical power and water service to perform the Work described herein.
- D. Auger boring or jacking shield equipment shall be manufactured by a company that specializes in the design and fabrication of this type of equipment and has at least 5 years of experience in the design and fabrication of such equipment. The equipment shall meet the following minimum requirements:
 - 1. Capable of installing casing pipe or tunnel liner plate at the diameters and lengths required by the Drawings.
 - 2. Provide a means for controlling line and grade within the tolerances listed herein.
 - 3. Capable of maintaining settlement or heave of the ground to limits as required herein or as otherwise acceptable to the authority having jurisdiction.
 - 4. Hydraulically operated and capable of installing casing pipe or tunnel liner plate in a controlled manner.
 - 5. Capable of providing sufficient torque and jacking loads as appropriate.
- E. For auger boring equipment, the auger shall only extend a maximum of 3 inches beyond the leading edge of the casing pipe to avoid ground loss. If non-cohesive or unstable conditions are encountered, the end of the auger and cutting tools, if used, shall be retracted into the casing a distance of at least three times the diameter of the casing to create a soil plug at the end of the casing to prevent ground movement. The diameter of the auger and cutter tools shall not be greater than the outside diameter of the casing pipe.
- F. Excavated materials shall be removed from the tunnel or trenchless excavation to the jacking pit and shall be disposed of properly at an off-site facility.

3.04 INSTALLATION OF CASING PIPE BY AUGER BORING OR A JACKING SHIELD

- A. Casing pipe to be installed by tunnel or trenchless methods as described herein shall meet the requirements for the type of casing pipe specified herein and shall be in accordance with the Contractor's accepted submittals.
- B. Contractor shall monitor the volume of material excavated and adjust rate of excavation to prevent settlement or heave of the ground.
- C. Casing pipe shall be set on properly braced and supported guide rails in the jacking shaft prior to installation.
- D. Contractor shall not exceed the maximum allowable jacking force when jacking the pipe.
- E. Jointing and welding of the casing pipe shall be performed in accordance with the casing pipe manufacturer's recommendations.

- F. Provide a means of tracking the leading edge of the casing pipe using an electronic transmitting and receiving device.
- G. In the event a section of casing pipe is damaged during installation, the additional casing pipe shall be advanced through the receiving pit to allow for the removal of the damaged casing pipe. This shall be performed at no additional cost to the Owner.

3.05 INSTALLATION OF TUNNEL LINER PLATE WITH A JACKING SHIELD OR HAND TUNNELING

- A. Tunnel liner plate to be installed by tunnel or trenchless methods as described herein shall meet the requirements for the type of tunnel liner plate specified herein and shall be in accordance with the Contractor's accepted submittals.
- B. Assembly of the tunnel liner plate shall be performed in accordance with the tunnel liner plate manufacturer's recommendations. Assemble steel liner plates into circumferential rings. Liner plates shall be of the type to permit segments to be installed completely from inside the tunnel or trenchless crossing.
- C. Accurately maintain the face of the excavation inside the tunnel so as to allow the absolute minimum of void space outside the liner plate. Maintain a maximum of a 1/2-inch tolerance between the outside of the tunnel liner plate and the surrounding excavation wherever possible. The excavated tunnel diameter shall not be greater than 2 inches larger than the tunnel liner plate outside diameter.
- D. Tunnel liner plate installation shall proceed as closely as possible behind the face of the excavation. The face of the excavation shall at no time be more than 6 inches ahead of the required space to install an individual tunnel liner plate. Use breast plates, poling boards, or other suitable devices to maintain accurate excavation with the minimum of unsupported excavation at any time. Tunnel liner plates shall not be allowed to deflect vertically during installation.
- E. Contractor shall not exceed the maximum allowable jacking force when advancing the jacking shield against the tunnel liner plate, if used.
- F. In the event tunnel liner plate(s) are damaged during installation or jacking operations, the damaged tunnel liner plate(s) shall be removed and replaced. This shall be performed at no additional cost to the Owner.

3.06 INSTALLATION OF CONTACT GROUT

- A. Install contact grout in the void space between the outside of the casing pipe or tunnel liner and the excavation, especially in any voids created by over-excavation, caving, or collapse. For casing pipe, install contact grout mix immediately upon completion of setting casing pipe. For tunnel liner plate, install contact grout at the end of each workday as tunnel liner plates are actively being installed or more often as conditions warrant.
- B. Unless specified otherwise, install contact grout through grout ports or grout fittings installed in the casing pipe or tunnel liner plate that are 42 inches in diameter or larger or if voids are suspected. Grout ports or fittings shall be fabricated into casing pipe at a maximum spacing of 10 feet. Grout ports or fittings shall be fabricated into each individual liner plate.

- C. Grouting operations shall be performed in such a manner to prevent damage to the casing pipe, tunnel liner plate, the surrounding ground, or adjacent facilities or existing utilities. Contact grout shall be injected at a pressure that will not distort or imperil any portion of the Work.
- D. Remove fittings and plug grout ports and fittings after completion of contact grouting.

3.07 CONTROL OF LINE AND GRADE

- A. Benchmarks and other survey control points shall be established by the Contractor. Accuracy of the benchmarks shall be verified prior to commencement of construction by the Contractor.
- B. The casing pipe or tunnel liner plate shall be installed to meet the following tolerances along the entire length of the tunnel or trenchless crossing. If the installation exceeds the specified tolerances herein, Contractor shall perform corrective work that is acceptable to the Engineer and at no additional cost to the Owner.
 - 1. Horizontal Tolerance: Plus or minus 6 inches from theoretical horizontal alignment for every 100 feet of tunnel or trenchless crossing, unless otherwise specified.
 - 2. Vertical Tolerance: Plus or minus 2 inches from theoretical vertical alignment for every 100 feet of tunnel or trenchless crossing, unless otherwise specified.

3.08 INSTALLATION OF CARRIER PIPE

- A. Carrier pipe to be installed within the casing pipe or tunnel liner plates shall meet the requirements for the type of carrier pipe as specified. Where indicated, place, align, and anchor casing insulators or spacers inside the casing pipe.
- B. Pull or skid pipe into place inside the casing pipe or tunnel liner plate. Lubricants such as flax soap or drilling mud may be used to ease pipe installation. Contractor shall not use petroleum products, such as oil or grease for this purpose.
- C. Perform all required testing and surveying of the carrier pipe prior to performing backfill grouting.

3.09 BACKFILL GROUTING

- A. The annular space between the casing pipe and the carrier pipe shall be completely backfilled throughout the entire length from the low (downstream) end of the pipeline crossing. Seal the low end and place backfill grout until grout is extruded from the opposite end.
- B. The carrier pipe and any other piping or conduits whether temporary or permanent shall be firmly anchored or blocked in place, while maintaining required clearances, to prevent floatation or movement during backfilling operations.
- C. After backfill grouting is completed, seal or plug the ends of the casing pipe with End Seals as required herein.

END OF SECTION

SECTION REF

REFERENCE INFORMATION

33 10 13 - DISINFECTING OF WATER UTILITY DISTRIBUTION

33 10 13 DISINFECTING OF WATER UTILITY DISTRIBUTION

1.00 GENERAL

1.01 WORK INCLUDED

- A. Disinfect the facilities for pumping, storing, or conveying potable water to comply with the standards for potable water of the regulatory agency of jurisdiction. Potable water is defined as any water that has been filtered, disinfected or otherwise treated to the meet regulatory standards (in the water treatment plant this includes the inside surfaces of the filters).
- B. Disinfect piping systems that are used to convey water, solutions, or chemicals to the potable water facilities.
- C. Test water from the disinfected system per regulatory standards to verify that water is acceptable. Repeat procedure if tests do not meet standards.
- D. For critical operations identified in Section 01 35 00 "Special Procedures" the Contractor shall plan and perform the repairs/work in a manner to allow the Bac-T samples to be taken by noon. In accordance with Texas Commission on Environmental Quality (TCEQ) Chapter 290 regulations, disinfection must be performed when repairs are made to existing facilities and before new facilities are placed into service. When it is necessary to return the facility back to service as rapidly as possible, it is acceptable to increase the doses to 500 mg/l and the contact time reduced to 30 minutes. This Project will require the critical operations to be disinfected by 500 mg/l for 30 minutes followed by flushing prior to the sample being taken. The Owner will take the sample and have it tested. Contractor may also take a sample to be tested. Cost for failed tests and all associated re-disinfection, flushing shall be borne by the Contractor. Prior to the 30 minute test time, all new valves shall be fully closed and opened.

1.02 STANDARDS

- A. The Applicable provisions of the following standards apply as written here in their entirety:
 - 1. American Water Works Association (AWWA) Standards:

AWWA B300	Hypochlorites
AWWA B301	Liquid Chlorine
AWWA C651	Disinfecting Water Mains
AWWA C652	Disinfection of Storage Facilities
AWWA C653	Disinfection of Water Treatment Plants

- 2. NSF International (NSF) / American National Standards Institute (ANSI) Standards:

NSF/ANSI Standard 60	Drinking Water Treatment Chemicals – Health Effects
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1.03 QUALITY ASSURANCE

- A. Demonstrate that :

1. Disinfection Chemicals are in compliance with AWWA B300 or AWWA B301 and AWWA C651, AWWA C652 or AWWA C653.
2. Disinfection Chemicals are in compliance with NSF/ANSI Standard 60.

1.04 SUBMITTALS

- A. Submittals shall be in accordance with Section 01 33 00 "Document Management" and shall include:
 1. Shop Drawings: Manufacturer's data sheet demonstrating compliance with appropriate AWWA/NSF/ANSI Standards for materials not listed in the approved manufacturers list in Part 2.00 - Materials Article.
 2. Record Data: Materials to be used from the approved manufacturers listed in Part 2.00 – Materials Article.

2.00 PRODUCTS

2.01 MATERIALS

- A. Liquid Chlorine: Meeting the requirements of AWWA B301 and NSF/ANSI Standard 60 certified for use in potable water systems.
- B. Calcium or Sodium Hypochlorite: Meeting the requirements of AWWA B300 and NSF/ANSI Standard 60 Certified for use in potable water systems.
- C. Calcium hypochlorite intended for use in swimming pools will not be accepted (AWWA C651 Item 4.1.3).
- D. Approved Manufacturers:
 1. AllChem Performance - Chlor Mor Cal Shock.
 2. Arch Chemicals - Dry Tec Granular.
 3. Brentag Southwest Inc. - Sodium Hypochlorite, 12.5%.
 4. Alliance Chemical - Sodium Hypochlorite, 10-15%.
 5. Olin Corporation - Sodium Hydrochlorite Solution.
 6. Approved equal.

3.00 EXECUTION

3.01 NEW FACILITIES

- A. New facilities shall be thoroughly disinfected in accordance with AWWA C651 - Disinfecting Water Mains, AWWA C652 - Disinfection of Storage Facilities, and AWWA C653 - Disinfection of Water Treatment Plants, and then flushed and sampled before being placed in service. Samples shall be collected and tested in accordance with the TCEQ Rules and Regulations, Chapter 290.
- B. During construction keep basins, pipe, fittings, equipment, and appurtenances free from dirt and debris.

1. Clean basins thoroughly before disinfection.
 2. Seal the open ends of pipe with water-tight plugs when pipe is not being laid.
 3. Pump water from trenches before removing the plug when water accumulates in the trench.
- C. Complete hydrostatic test of the line prior to disinfection.
- D. Wash the surfaces to be disinfected.
1. Flush pipelines. The minimum quantity of water used for flushing must exceed the capacity of the line to ensure that clean water has traversed the entire length of pipe.
 2. Power wash the surfaces of basins and reservoirs using high pressure wash systems.
- E. Disinfect facilities per the following procedures of AWWA:
1. Water Mains: AWWA C651 - latest revision.
 2. Water Storage Facilities: AWWA C652 - latest revision.
 3. Water Treatment Plants: AWWA C653 - latest revision.
- F. Fill the system with potable water. Test the water to see that it meets the requirements of the regulatory agency of jurisdiction for potable water. Monitor the system for 2 days. If water test fails to meet the prescribed standards, repeat the disinfection process until water meets quality standards for disinfection.

3.02 REPAIRS OR CONNECTIONS TO EXISTING LINES

- A. Clean and sterilize the interior surfaces of new piping, fittings, equipment, and appurtenances to be installed in an existing potable water system or connected to an existing system.
- B. Clean and sterilize the existing pipe or facilities for a minimum distance of 3 pipe diameters back from the ends of the pipe. Plug the ends of the line when work is not being performed on the pipe.
- C. Perform sterilization by swabbing each item with a concentrated chlorine solution.
1. Each piece is to be disinfected prior to being assembled for installation in the existing pipe.
 2. Disinfect each piece just prior to assembly to help prevent re-contamination.
 3. Plug the ends of the assembly until a new item is to be added to the assembly.
 4. Store disinfected materials on blocks to prevent contact with the ground.

3.03 DISPOSAL OF FLUSHING AND DISINFECTION WATER

- A. Chlorinated water used in flushing and disinfecting pipelines, storage tanks, or vessels prior to connection to the distribution system shall be disposed of by the Contractor in an acceptable manner. Chlorinated water must be "de-chlorinated" prior to disposal to eliminate adverse impacts to the surrounding environment. Water released to the environment shall meet all AWWA, EPA, and TCEQ regulatory requirements.

1. Contractor is responsible for complying with all of the applicable requirements of the TPDES General Permit TXG670000, issued by the TCEQ, regarding the discharge of hydrostatic test water. Maximum discharge chlorine concentration for compliance is 0.10 mg/l. Discharges within the Edwards Aquifer recharge area must meet special requirements under the terms of the General Permit. Contractor compliance is required.
 2. Residual chlorine concentrations may be reduced using sulfur dioxide, sodium bisulfite, sodium sulfite, sodium thiosulfate, or ascorbic acid.
 3. The discharge must be to a splash pad or paved area, and may not be located within 300 feet of the intake for a domestic drinking water supply or 500 feet of any public or private water well.
 4. An effluent water sample must be taken during the first hour of discharge at a location immediately near the point of discharge, and collected prior to commingling with storm water, wastewater, or other flows.
 5. For discharges that extend beyond an hour in duration, a second sample must be taken of the last 10 percent of the effluent.
 6. Sampling protocol, sample containers, holding times, preservation methods, and analytical methods must follow the requirements set forth in the general permit.
 7. The effluent grab sample(s) must be analyzed for total residual chlorine by an accredited and certified laboratory.
 8. Any noncompliance that endangers human health or safety, or the environment must be reported to the TCEQ in accordance with the general permit.
 9. Any effluent violation which deviates from the permitted effluent limitation by more than 40 percent must be reported to the TCEQ in accordance with the general permit.
 10. Contractor must record all hydrostatic test water sample results on an approved Discharge Monitoring Report (EPA Form 3320-1). These monitoring records shall be retained for a period of 3 years from the date of the record and be readily available for review by the TCEQ upon request.
- B. With the written permission of the Owner of the system, chlorinated water may be disposed of in a sanitary sewer system if one is available. In the case of larger pipelines and the larger volumes of water involved, the Contractor will not be permitted to use the sanitary sewer system for disposal even if one is available.

END OF SECTION

SECTION REF

REFERENCE INFORMATION

33 05 05.31 - HYDROSTATIC TESTING

33 05 05.31 HYDROSTATIC TESTING

1.00 GENERAL

1.01 WORK INCLUDED

- A. Hydrostatically test new pipe between valves or plugs at the pressure and for the duration specified.
- B. Additional plugs may be installed to reduce the length of each test section. No additional compensation will be paid if additional plugs are used.
- C. Provide a pressure reducing backflow preventer and all temporary piping, pumping, fittings and gauges required to fill, test and then drain the pipe.
- D. Do not begin test until pipe has been backfilled for at least 7 days.

1.02 SUBMITTALS

- A. Submit detailed hydrostatic test procedure 10 days prior to conducting the test.
- B. Submit Hydrostatic Pipe Test Reports.

1.03 STANDARDS

- A. The applicable provisions of the following standards shall apply as if written here in their entirety:

1. ASTM International (ASTM):

ASTM F2164	Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure
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2. American Water Works Association (AWWA):

AWWA C200	Steel Water Pipe, 6 In (150 mm) and Larger
AWWA C600	Installation of Ductile-Iron Mains and Their Appurtenances
AWWA C604	Installation of Buried Steel Water Pipe – 4 In. (100 mm) and Larger
AWWA C605	Underground Installation of Polyvinyl Chloride (PVC) and Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe and Fittings
AWWA M9	Concrete Pressure Pipe
AWWA M11	Steel Pipe – A Guide for Design and Installation
AWWA M23	PVC Pipe – Design and Installation
AWWA M41	Ductile-Iron Pipe and Fittings
AWWA M55	PE Pipe – Design and Installation

2.00 PRODUCTS

2.01 WATER FOR TESTING

- A. Obtain water for filling and testing the pipeline and provide all temporary pumps and piping necessary to fill the pipeline.
- B. If chlorinated water is used, then dechlorinate it before disposal per all regulations.

3.00 EXECUTION

3.01 GENERAL

- A. Perform hydrostatic test in accordance with this Section, AWWA Standards, AWWA Manuals, and the supplier's recommendations.

3.02 TEST PRESSURE

- A. 0.9 to 1.5 of the working pressure for PVC and HDPE.

3.03 TEST PREPARATION

- A. Fill pipe at 0.5 feet per second in the main pipe.
- B. Verify all air valves are working and air is vented from temporary taps. Plug taps after test.
- C. Examine bulkheads, valves, manholes, flanges, and connections for leaks during this period. Stop any leaks before continuing.
- D. If an existing valve is in the test section, then coordinate with the Construction Manager to determine an approved method for measuring any leakage past the valve. Furnish all necessary equipment and include the cost for this effort in the Contract Price.

3.04 TEST DURATION

- A. Test the test section for 4 hours.

3.05 EXAMINATION UNDER PRESSURE

- A. Protect the gauge from direct sunlight during the test.
- B. Inspect the pipe during the test to locate any leaks or breaks, defective joints, cracked or defective pipe, fittings, or valves. Correct defective Work identified during the pressure test.
- C. Correct all identified leaks even if leakage is within the parameters for permissible make up water.
- D. Test the pipe again after defective Work has been corrected. Repeat the test and correction of defective Work until satisfactory test results are obtained.

3.06 PERMISSIBLE MAKEUP WATER

- A. Measure make up water. Make up water is the amount of water added to the test section to maintain the pressure within 5 psi of the specified test pressure.

- B. The maximum acceptable volume of makeup water for gasketed pipe is 1 gallon per inch of pipe diameter per mile of pipe tested per day.

3.07 CORRECTIONS OF DEFECTS

- A. Repair any defective joints, cracked or defective pipe, fittings, or valves discovered in performance of this pressure test with sound material meeting the requirements of the Contract Documents and repeat the test until satisfactory results are obtained. Repair all noticeable leaks even if the actual leakage is within the allowable limits.
- B. Remove water from pipeline upon completion of the hydrostatic test.

END OF SECTION

SECTION REF

REFERENCE INFORMATION

32 93 00 - TREES, SHRUBS, AND GROUND COVER

32 93 00 TREES, SHRUBS, AND GROUND COVER

ARTICLE 1: GENERAL

1.01 WORK OF THIS SECTION

- A. The Drawings, Standard General Conditions of Contract, Supplementary Conditions and Division 01 Specification Sections apply to Work of this Section.

1.02 DESCRIPTION

- A. Trees, Shrubs, Perennials, Ground Cover, Soil Amendments, Incidental Products and Installation Procedures.
- B. Guarantee and Maintenance.

1.03 DEFINITIONS

- A. AAN: American Association of Nurserymen.
- B. Owner: Owner, Owner's Representative, or designated consultant employee.

1.04 QUALITY ASSURANCE

- A. Contractor Qualifications: Minimum of 3 years of experience on projects of similar characteristics and size.
- B. Reference Standards:
 - 1. American Joint Committee of Horticultural Nomenclature: Standardized Plant Names, Second Edition, 1942.
 - 2. American Association of Nurserymen, Inc., American Standard for Nursery Stock, 1986 (ANSI Publication Z60.1-1986).
 - 3. Official Method of Analysis of the Association of Official Analytical Chemists (AOAC).
- C. Substitution:
 - 1. Install substitutions only upon written approval of the Owner.
 - 2. Submit substitutions possessing same characteristics as plant or material indicated.
 - 3. Do not substitute plants of less cost than plant indicated.
 - 4. Where larger plants are substituted by Contractor, substitute plants of greater value without any additional cost to Owner.
- D. Quality Control:
 - 1. Contractor shall be responsible for all material shown on Drawings. Submit documentation to the Owner with bid that all plant material is available. Any and all substitutions due to unavailability must be requested in writing and submitted with bid. All plants shall be subject to inspection and approval by the Owner at place of growth or upon delivery to the Site for conformity to the Specifications. Such approval shall not impair the right of inspection and rejection during progress of the Work.

2. The Contractor shall submit specifications of any item being used on-site upon the request of the Owner.
3. At least one plant of each species delivered to the Site will have an identification tag from the supply nursery showing common and botanical plant names. Do not remove tag until after final inspection.

1.05 SUBMITTALS

A. Certificates:

1. Test Reports: Submit certification of fertilizer analysis with invoice.
2. File certificates with Owner prior to material acceptance.

B. Manufacturer's Product Literature, as Applicable.

C. Maintenance Instructions: Submit written maintenance schedule for maintaining plant material after completion of job to Owner before the final inspection.

1.06 PRODUCT DELIVER, STORAGE AND HANDLING

A. Preparation for Delivery:

1. Pack plant material to protect against climatic, seasonal, and breakage injuries during transit.
2. Securely cover plant tops with tarpaulin or canvas to minimize windwhipping and drying. Use anti-desiccant only upon approval of Owner.
3. Pack and ventilate to prevent sweating of plants during transit by rail. Give special attention to insure prompt delivery and careful handling to point of delivery at planting job site.

B. Delivery:

1. Deliver fertilizer and soil amendments to Site in original unopened containers bearing manufacturer's guaranteed chemical analysis, name, trademark and conformance to State law.
2. The Contractor shall furnish the Owner with two copies of receipts for all amendments specified herein.
3. Deliver all plants with legible identification labels.
4. Protect plant material during delivery to prevent damage to root ball or desiccation of leaves.
5. The Contractor shall notify the Owner 10 days in advance of delivery of all plant materials and shall submit an itemized list of the plants in each delivery.

C. Storage:

1. Protect roots of plant material from drying or other possible injury with soil or acceptable material.
2. Store plant material in an area which is shaded and protected from the weather.

3. Maintain and protect plant material not to be planted immediately upon delivery in a healthy, vigorous condition.
4. Erect temporary fence and store material inside in manner approved by Owner.

D. Handling:

1. The Contractor is cautioned to exercise care in handling, loading, unloading and storing of plant materials. Plant materials that have been damaged in any way will be discarded and if installed, shall be replaced with undamaged materials at the Contractor's expense.
2. Do not drop plants.
3. Do not pick up container or balled plants by stem or trunks.
4. Lift and handle balled plants from bottom of ball.

1.07 JOB CONDITIONS

A. Protection: Before excavations are made, take precautionary measures to protect lawn areas driven over by vehicles and where soil is temporarily stacked.

B. Scheduling:

1. Perform actual planting only when weather and soil conditions are suitable in accordance with locally accepted practice.
2. Install trees, shrubs, perennials and ground cover plants prior to lawn installation.
3. Coordinate special scheduling with Landscape Irrigation Contractor.

1.08 SAMPLES AND TEST

A. Owner reserves the right to take and analyze samples of materials for conformity to specifications at any time.

B. Contractor shall furnish samples upon request by Owner. Rejected materials shall be immediately removed from the Site at Contractor's expense. Cost of testing of materials not meeting specifications shall be paid by Contractor.

1.09 GUARANTEE AND MAINTENANCE

A. Final Acceptance:

1. The Contractor shall request final acceptance in writing 10 days before the anticipated date.
2. Planting type, size and number shall be approved by the Owner as being in accordance with the Drawings and Specifications.
3. Any plant required under this Contract that is dead, or injured, diseased, or not true to its name or size as determined by the Owner shall be immediately removed from the Site and replaced at no additional cost to the Owner.

B. Guarantee and Replacement:

1. Guarantee plant materials to be in a healthy, vigorous and attractive growing condition for a period of 1 year for shrubs, perennials, ground cover and trees. Guarantee shall begin immediately upon final acceptance by the Owner.
 2. During the guarantee period, replace plants which die, become diseased or unhealthy, or are otherwise found to be in a poor condition, as determined by the Owner, at no additional expense to the Owner.
 3. The guarantee will not apply to damage or injury to plant materials caused by vandalism, vehicles and storms.
 4. Replace guaranteed plants within 15 days of written notification by the Owner.
- C. Maintenance Period:
1. Maintain all planting areas until receipt of written final acceptance by the Owner.
 2. All replacement of plant material during maintenance and guarantee period shall be with original size and planting mixture as shown on the Drawings.
 3. Repair all damages to plants and/or lawns at no additional expense to the Owner.
 4. Maintenance shall consist of but not be limited to:
 - a. Weeding.
 - b. Watering.
 - c. Pruning (as directed by the Landscape Architect).
 - d. Spraying.
 - e. Fertilizing.
- D. Final Inspection: At this inspection, all plants must be in a healthy growing condition, weed free, pruning complete and staking and guying secure. Acceptance shall follow upon meeting these requirements.

1.10 SITE OR FIELD VISITS BY THE LANDSCAPE ARCHITECT

- A. The Landscape Architect will visit the Site once to examine plant materials for type, size and character specified. The Landscape Architect will also visit the Site once to examine installed plant materials.
- B. Should additional trips be required due to rejection of plant materials or improper or inadequate completion of the Work, the cost of additional trips will be paid for by the Contractor. Such costs will include the Landscape Architect's time, travel, meals and other miscellaneous related expenses.

ARTICLE 2: PRODUCTS

2.01 MATERIALS

- A. Plant Material (See Drawings for Type and Size):
 1. Plants shall conform with State of Texas Regulations for nursery inspections, rules and rating. All plants shall have a normal habit of growth and shall be sound, healthy, vigorous and free of insect infestations, plant diseases, sunscalds, windburn, knots,

injuries, fresh abrasions of the bark, excessive abrasions, or other objectionable disfigurements. Tree trunks shall be sturdy and have well “hardened” systems and vigorous and fibrous root systems which are not root or pot-bound. In the event of disagreement as to condition of root system, the root conditions of the plants furnished by the Contractor in containers will be determined by removal of earth from the roots of not less than two plants nor more than 2 percent of the total number of plants of each species or variety. Where container-grown plants are from several sources, the roots of not less than two plants of each species or variety from each source will be inspected. In case the sample plants inspected are found to be defective, the Owner reserves the right to reject the entire lot or lots of plants represented by the defective samples. The Owner is the sole judge as to acceptability. Any plants rendered unsuitable for planting because of this inspection will be considered as samples and will be provided at the expense of the Contractor.

2. The size and shape of the plants will correspond with that normally expected for species and variety of commercially available nursery stock or as specified on Drawings. The overall shape and the minimum acceptable size of all plants measured before pruning with the branches in normal position shall conform with the AAN Standards. Plants larger in size than specified may be used with the approval of the Owner, but the use of larger plants will cause no change in Contract Price. If the use of larger plants is approved, the ball of earth or spread of roots for each plant will be increased proportionately.
3. All plants not conforming to the requirements herein specified shall be considered defective and such plants, whether in place or not, shall be marked as rejected and immediately removed from the Site and replaced with new plants at the Contractor’s expense.
4. Pruning: Trees or plant materials shall be pruned or trimmed prior to delivery. Any alteration of their shape shall be conducted only with the approval and when in the presence of the Owner. In no case will the removal of branch leaders (TIPS) be permitted.
5. Plant material shall be true to botanical and common name and variety.
6. Nursery Grown and Collected Stock:
 - a. All plant material shall be nursery grown stock except as noted on the Drawings or as approved in writing by the Landscape Architect.
 - b. Grown under climatic conditions similar to those in locality of Project.
 - c. Container-grown stock in vigorous, healthy condition, not root-bound or with root system hardened off.
 - d. Use only liner stock plant material which is well established in removable containers or formed homogeneous soil sections.
 - e. If required, provide proof that material was nursery grown. All rejected stock shall be replaced at Contractor’s expense.
7. Trees:
 - a. Single straight trunks unless indicated otherwise.

- b. Trees with weak, thin trunks not capable of support will not be accepted.
 - c. Trees, with a specified trunk caliper of 3 inches or more shall not branch less than 4 feet above finish grade, unless specified as multi-trunk.
- B. Imported Topsoil for Prepared Soil Mixtures:
 - 1. Sandy loam from a source approved by the Owner. 100 percent passing through a 1-inch screen.
 - a. Sand (2000 mm to 0.50 mm): 40 to 50 percent.
 - b. Silt (0.050 mm to 0.005 mm): 30 to 40 percent.
 - c. Clay (0.005 mm and smaller): 10 to 30 percent.
 - 2. Free of subsoil, brush, stumps, roots, organic litter, objectionable weeds, clods, shale, stones 1-inch minimum dimension or larger, or other material harmful to grading, planting, plant growth, or maintenance operations.
 - 3. Presence of vegetative parts of Bermuda grass, Johnson grass, nut grass (*Cyperus rotundus*), and other hard to eradicate weeds or grass will be cause for rejection of topsoil. Contractor must provide written verification as to the absence of such weeds.
- C. Commercial Fertilizer:
 - 1. Uniform composition.
 - 2. Pelletized.
 - 3. Containing following minimum percentage of plant food by weight:
 - a. Available Nitrogen: 10 or 12 percent.
 - b. Available Phosphoric Acid: 10 or 12 percent.
 - c. Available Potash: 10 or 12 percent.
- D. Organic Soil Conditioner: Compost as manufactured by Living Earth Technology (214) 869-4332, or approved equal.
- E. Sharp Sand: Clean, washed sand, fine to coarse sizes, free of clay lumps or other objectionable materials.
- F. Water: Potable, available on-site. Contractor shall furnish temporary hoses and connections as required.
- G. Tree Paint: Morrison Tree Seal, Cabot's Tree Paint, or equal.
- H. Pre-Emergence Herbicide: EPTAM or an approved equal.
- I. Steel Edging: 14 Gauge Ryerson, or an approved equal.
- J. Guying and Staking Materials: Refer to Drawings.
- K. Mulch: Twice-shredded hardwood mulch free of insects, debris, trash, weeds, seeds, and other noxious materials as manufactured by Living Earth Technology (214) 869-4332 or an approved equal.
- L. Controlled Release Fertilizer Tablets: Agriform tablets as manufactured by Sierra Chemical Co.; 21-gram tablets with the following percentages of available nutrients by weight:

1. Nitrogen: 28 percent.
 2. Phosphorus: 8 percent.
 3. Potassium: 4 percent
- M. Peat Moss: Canadian, Dutch or German Spaghnum peat moss. Peat moss shall be delivered in original, unopened and unbroken packages.
- N. Soil Acidifier: Dispersul or an approved equal.

ARTICLE 3: EXECUTION

3.01 INSPECTION

- A. Contractor shall verify that established grades are correct and determine locations of all underground utilities prior to beginning planting.
- B. Contractor shall see that all planting areas are free of all weed and foreign material prior to beginning planting.
- C. Contractor shall inspect trees, shrubs, perennials and ground cover plants for injury, insect infestation, and trees and shrubs for improper size and shape.
- D. Contractor shall not begin planting until deficiencies are corrected, or plants replaced. To begin Work indicates acceptance of site conditions.

3.02 PLANT LOCATIONS AND MEASUREMENTS

- A. Stake outline of planting beds on ground.
- B. Stake locations of trees.
- C. Place shrubs and ground cover in indicated locations.
- D. Notify Owner of discrepancies between plants indicated on the Drawings and the actual conditions prior to planting.
- E. Plant locations will be approved by Owner prior to planting.

3.03 FINAL GRADES

- A. Minor modification to grade may be required to establish the final grade.
- B. Fine grading shall insure proper drainage of the Site as determined by the Landscape Architect.
- C. All areas shall be fine graded so that the finished grades will be 1 inch in lawn and 2 inches in shrub and perennial and groundcover areas, below adjacent paved areas, sidewalks, valve boxes, headers, clean-outs, drains, manholes, etc., or as indicated on Drawings.
- D. Surface drainage shall be away from all building foundations at a 2 percent minimum for 5 feet minimum.
- E. All erosion scars shall be filled and compacted prior to planting installation.
- F. Disposal of any unacceptable or excess soil shall be done at location approved by Owner at the expense of the Contractor.

3.04 EXCAVATION FOR PLANTING

A. Pits:

1. Shape:

- a. Vertical sides and crowned bottom.
- b. Plant pits to be circular.

2. Size for Trees: Two times the width of the root ball and 6 inches deeper than root ball.

3. Size for Shrubs: Two times the width of the root ball and 3 inches deeper than root ball.

B. Perennial and Ground Cover Beds: Excavate existing soil to the depth noted in Paragraph 3.05.

C. Obstructions Below Ground:

1. Remove rock or underground obstructions to depth of 6 inches below bottom of plant ball or root, measured when plant is properly set at the required grade.
2. If underground obstructions cannot be removed, notify Owner for new instructions.
3. Avoid damaging underground utility lines.
4. Repair damage to existing utilities at no additional expense to Owner.

D. Disposal of Excess Soil:

1. Use acceptable excess excavated topsoil for filling holes, pits, and beds as directed by the Owner.
2. Dispose of unacceptable or unused excess soil at an off-site location as directed by the Owner at the expense of the Contractor.

3.05 SOIL PREPARATION

A. Soil Preparation for Shrub, Perennial and Ground Cover Beds:

1. Pre-Plant Weed Control:

- a. If live perennial weeds exist on-site at the beginning of Work, spray with a non-selective systemic contact herbicide, as recommended and applied by an approved licensed landscape pest control advisor and applicator. Leave sprayed plants intact for at least 15 days to allow systemic kill. Apply herbicide in strict accordance with manufacturer's instructions.
- b. Clear and remove these existing weeds by scraping or grubbing off all plant parts at least 1/4 inch below the surface of the soil over the entire area to be planted.

2. Soil Amendment for Ground Cover Beds:

- a. Prior to soil amending, the subgrades shall be 6 inches below finish grade to allow for the following amendments and fertilizer. The layer of soil amendments shall be 4 inches deep, leaving a finish grade 2 inches below the adjacent paved areas. Excavation and/or fill may be required to achieve these grades.

1). Application Rates:

- a). Organic Soil Conditioner: 2-inch deep layer.
- b). Topsoil: 2-inch deep layer.
- c). Fertilizer: 10 lb. per 1000 sq. ft. of bed area.

- b. Amendments shall be uniformly spread and thoroughly cultivated, to a light and friable consistency, by means of a mechanical rototiller into the top 2 inches of subgrade which will make a bed of approximately 6 inches total depth of amended soil.

3. Soil Amendment for Shrub Beds:

- a. Prior to soil amending the subgrades shall be 10 inches below finish grade to allow for the following amendments and fertilizer. The layer of soil amendments shall be 8 inches deep, leaving a finish grade 2 inches below the adjacent paved areas. Excavation and/or fill may be required to achieve these grades.

1). Application Rates:

- a). Organic Soil Conditioner: 4-inch deep layer.
- b). Topsoil: 4-inch deep layer.
- c). Fertilizer: 10 lb. per 1000 sq. ft. of bed area.

- b. Amendments shall be uniformly spread and thoroughly cultivated to a light and friable consistency, by means of a mechanical rototiller into the top 8 inches of subgrade which will make a bed of approximately 16" total depth of amended soil.

- 4. At time of planting, the top 2 inches of all areas to be planted shall be free of stones, stumps, or other deleterious matter 1 inch in diameter or larger and shall be free from all wire, plaster or similar objects that would be a hindrance to planting or maintenance.
- 5. Pre-Emergence Herbicide: Prior to planting, apply to shrub, perennial and ground cover beds at rates recommended by manufacturer. Incorporate into top 1/2 inch of soil by handraking.

B. Prepared Backfill for Trees and Large Shrubs:

- 1. Planting mixture for trees and shrubs (5 gallons and larger) shall consist of the following materials:
 - a. Topsoil: 2 parts.
 - b. Peat Moss: 1 part.
 - c. Sharp Sand: 1 part.

3.06 PLANTING INSTALLATION

A. General:

- 1. Actual planting shall be performed during those periods when weather and soil conditions are suitable and in accordance with locally accepted practice, or as approved by the Owner.
- 2. Only as many plants as can be planted and watered on that same day shall be distributed in a planting area.

3. Containers shall be opened and plants shall be removed in such a manner that the ball of earth surrounding the roots is not broken and they shall be planted and watered as herein specified immediately after removal from the containers. Containers shall not be opened prior to placing the plants in the planting area.
 4. Set plants in pits at level shown on the details.
 5. Set plants plumb and rigidly braced in position until planting mixture has been tamped solidly around plant ball.
 6. Thoroughly settle plant by watering and tamping planting mixture.
 7. Rake planting beds level before and after planting.
 8. Thoroughly water trees and shrubs.
 9. Stake and guy all trees according to the details.
- B. Balled Plants:
1. Place in pit on planting mixture that has been hand-tamped.
 2. Place with burlap intact so location of ground line at top of plant ball will be same as prior to digging.
 3. Remove binding at top of ball and lay top of burlap back 6 inches.
 4. Remove any wire from the entire root ball.
 5. Do not pull wrapping from under ball.
 6. Do not plant if ball is cracked or broken before or during planting process or if stem is loose.
 7. Backfill with planting mixture.
- C. Container-Grown Plants:
1. Cut cans on two sides with an acceptable can cutter.
 2. Do not injure root ball.
 3. Carefully remove plants without injury or damage to root balls.
 4. After removing plant, superficially cut edge roots with knife on three sides.
 5. Place in pit on planting mixture that has been hand-tamped prior to placing plant.
 6. Backfill with planting mixture.
- D. Mulching:
1. Cover watering basins or planting beds evenly with a layer of mulch a minimum of 3 inches deep, after settlement.
 2. Water immediately after mulching.
 3. Hose down planting area with a fine spray to wash mulch off of leaves of plants.
- E. Pruning:
1. Prune minimum necessary to remove injured twigs and branches, deadwood, suckers.

2. Do not prune evergreens, except to remove injured branches.
 3. Pruning shall not exceed 1/3 branching structure.
 4. Make cuts flush leaving no stubs.
 5. Paint cuts over 3/4-inch diameter with approved tree-wound paint.
- F. Steel Edging:
1. Install where shown on Drawings.
 2. Install per manufacturer's specifications.
- G. Staking and Guying: Staking of all trees shall be completed immediately after planting as indicated on drawings.
- H. Planting of Ground Covers:
1. Ground cover shall be planted in straight rows and evenly spaced, unless otherwise noted, and at intervals called out in the Drawings. Triangular spacing shall be used unless otherwise noted on the Drawings.
 2. Plantings shall be immediately irrigated after planting until the entire area is soaked to the full depth of each root ball.
 3. Care shall be exercised at all times to protect the plants after planting. Any damage to plants by trampling or other operations of this Contract shall be repaired immediately.
- I. Controlled Release Fertilizer: Provide controlled release fertilizer tablets in accordance with the manufacturer's instructions at the following rates:
1. Shrubs - Less than 5 Gallons: None.
 2. Shrubs - 5 Gallons or Larger: 2 tablets each.
 3. Trees: 1 tablet per 1/2 inch of trunk caliper, measured 1 foot above the top of root ball.
- J. Watering:
1. Water as required when soil moisture is below optimum level for best plant growth.
 2. Coordinate watering with Owner and recommend watering schedule for areas to be watered with landscape irrigation system as well as those to be watered manually.

3.07 CLEANUP

- A. After planting operations have been completed, remove all trash, excess soil, empty plant containers and rubbish from the property. All scars, ruts or other marks in the ground caused by this work shall be repaired and the ground left in a neat and orderly condition throughout the Site. Contractor shall pick up all trash resulting from this work daily. All trash shall be completely removed from the Site to an approved location.
- B. The Contractor shall wash down all paved areas, leaving the premises in a clean condition.

END OF SECTION

Request for Taxpayer Identification Number and Certification

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the requester. Do not send to the IRS.

Print or type. See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
Jackson Construction, Ltd

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only **one** of the following seven boxes

Individual/sole proprietor or single-member LLC C Corporation S Corporation Partnership Trust/estate

Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

Other (see instructions) ▶ _____

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) _____

Exemption from FATCA reporting code (if any) _____

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.
5112 Sun Valley Drive

6 City, state, and ZIP code
Fort Worth, TX 76119

7 List account number(s) here (optional)

Requester's name and address (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number								
			-			-		
or								
Employer identification number								
7	5	-	2	6	7	8	5	8

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ▶ 	Date ▶ 10/03/2024
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding, later.*



Andrea Anderson
Purchasing Agent
141 West Renfro
Burleson, TX 76028
817-426-9847


ADDENDUM 1:
ITB 2024-026 Alsbury Blvd Widening Phase 1B

Any interpretations, corrections or changes to this ITB and Specifications will be made by addendum, unless otherwise stated. Submitting companies shall return and acknowledge receipt of all addenda when replying to this bid.

- 1. Is there going to be any street lights that needs to be moved or installed? Power poles?
No.
- 2. What is the estimated start and completion date for when this work should begin and be completed by?
Start- January 2025
End- November 2025

A signed copy of this addendum MUST be signed and included in any submittal that will be considered for award.

Jackson Construction, Ltd.
Company Name

Troy L. Jackson 
Authorized Representative

 President
Print Signature and Title

10/03/2024
Date

817-572-3303
Phone

