



**PROJECT MANUAL
FOR
THE CONSTRUCTION OF**

MORNINGSTAR – WESTPOINT 24” SANITARY SEWER LINE

**IPRC23-0151, City Project No.: 105124, FID No.: 30114-0200431-105124-E07685,
Plan File No.: K- n/a, X-27970**

Mattie Parker
Mayor

David Cooke
City Manager

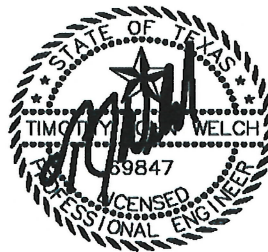
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**Prepared for
The City of Fort Worth**



1308 Norwood Drive, Suite 200
Bedford, Texas 76022



OCTOBER 2023

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Technical Specifications which have been modified by the Engineer specifically for this Project; hard copies are included in the Project's Contract Documents

NONE

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NONE

Technical Specifications listed below are included for this Project by reference and can be viewed/downloaded from the City's website at:

<http://fortworthtexas.gov/tpw/contractors/>
 or
<https://apps.fortworthtexas.gov/ProjectResources/>

Division 02 - Existing Conditions

Last Revised

02 41 13	Selective Site Demolition	12/20/2012
02 41 14	Utility Removal/Abandonment	12/20/2012
02 41 15	Paving Removal	02/02/2016

Division 03 - Concrete

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03 34 13	Controlled Low Strength Material (CLSM)	12/20/2012
03 34 16	Concrete Base Material for Trench Repair	12/20/2012
03 80 00	Modifications to Existing Concrete Structures	12/20/2012

Division 26 - Electrical

26 05 00	Common Work Results for Electrical	11/22/2013
26 05 10	Demolition for Electrical Systems	12/20/2012
26 05 33	Raceways and Boxes for Electrical Systems	12/20/2012
26 05 43	Underground Ducts and Raceways for Electrical Systems	07/01/2011
26 05 50	Communications Multi-Duct Conduit	02/26/2016

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31 10 00	Site Clearing	12/20/2012
31 23 16	Unclassified Excavation	01/28/2013
31 23 23	Borrow	01/28/2013
31 24 00	Embankments	01/28/2013
31 25 00	Erosion and Sediment Control	12/20/2012
31 36 00	Gabions	12/20/2012
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32 01 17	Permanent Asphalt Paving Repair	12/20/2012
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32 11 23	Flexible Base Courses	12/20/2012
32 11 29	Lime Treated Base Courses	12/20/2012
32 11 33	Cement Treated Base Courses	12/20/2012
32 11 37	Liquid Treated Soil Stabilizer	08/21/2015
32 12 16	Asphalt Paving	12/20/2012
32 12 73	Asphalt Paving Crack Sealants	12/20/2012
32 13 13	Concrete Paving	12/20/2012
32 13 20	Concrete Sidewalks, Driveways and Barrier Free Ramps	06/05/2018
32 13 73	Concrete Paving Joint Sealants	12/20/2012
32 14 16	Brick Unit Paving	12/20/2012
32 16 13	Concrete Curb and Gutters and Valley Gutters	10/05/2016

32-17-23	Pavement Markings	11/22/2013
32-17-25	Curb Address Painting	11/04/2013
32-31-13	Chain Fences and Gates	12/20/2012
32-31-26	Wire Fences and Gates	12/20/2012
32-31-29	Wood Fences and Gates	12/20/2012
32-32-13	Cast-in-Place Concrete Retaining Walls	06/05/2018
32-91-19	Topsoil Placement and Finishing of Parkways	12/20/2012
32-92-13	Hydro-Mulching, Seeding, and Sodding	12/20/2012
32-93-43	Trees and Shrubs	12/20/2012

Division 33 - Utilities

33-01-30	Sewer and Manhole Testing	12/20/2012
33-01-31	Closed Circuit Television (CCTV) Inspection	03/03/2016
33-03-10	Bypass Pumping of Existing Sewer Systems	12/20/2012
33-04-10	Joint Bonding and Electrical Isolation	12/20/2012
33-04-11	Corrosion Control Test Stations	12/20/2012
33-04-12	Magnesium Anode Cathodic Protection System	12/20/2012
33-04-30	Temporary Water Services	07/01/2011
33-04-40	Cleaning and Acceptance Testing of Water Mains	02/06/2013
33-04-50	Cleaning of Sewer Mains	12/20/2012
33-05-10	Utility Trench Excavation, Embedment, and Backfill	12/12/2016
33-05-12	Water Line Lowering	12/20/2012
33-05-13	Frame, Cover and Grade Rings – Cast Iron	01/22/2016
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33-05-14	Adjusting Manholes, Inlets, Valve Boxes, and Other Structures to Grade	12/20/2012
33-05-16	Concrete Water Vaults	12/20/2012
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33-05-24	Installation of Carrier Pipe in Casing or Tunnel Liner Plate	06/19/2013
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33-05-30	Location of Existing Utilities	12/20/2012
33-11-05	Bolts, Nuts, and Gaskets	12/20/2012
33-11-10	Ductile Iron Pipe	12/20/2012
33-11-11	Ductile Iron Fittings	12/20/2012
33-11-12	Polyvinyl Chloride (PVC) Pressure Pipe	11/16/2018
33-11-13	Concrete Pressure Pipe, Bar-Wrapped, Steel Cylinder Type	12/20/2012
33-11-14	Buried Steel Pipe and Fittings	12/20/2012
33-12-10	Water Services 1-inch to 2-inch	02/14/2017
33-12-11	Large Water Meters	12/20/2012
33-12-20	Resilient Seated Gate Valve	12/20/2012
33-12-21	AWWA Rubber-Seated Butterfly Valves	12/20/2012
33-12-25	Connection to Existing Water Mains	02/06/2013
33-12-30	Combination Air Valve Assemblies for Potable Water Systems	12/20/2012
33-12-40	Fire Hydrants	01/03/2014
33-12-50	Water Sample Stations	12/20/2012

33 12 60	Standard Blow-off Valve Assembly	06/19/2013
33 31 12	Cured-in-Place Pipe (CIPP)	12/20/2012
33 31 13	Fiberglass Reinforced Pipe for Gravity Sanitary Sewers	12/20/2012
33 31 15	High Density Polyethylene (HDPE) Pipe for Sanitary Sewer	12/20/2012
33 31 20	Polyvinyl Chloride (PVC) Gravity Sanitary Sewer Pipe	06/19/2013
33 31 21	Polyvinyl Chloride (PVC) Closed Profile Gravity Sanitary Sewer Pipe	12/20/2012
33 31 22	Sanitary Sewer Slip Lining	12/20/2012
33 31 23	Sanitary Sewer Pipe Enlargement	12/20/2012
33 31 50	Sanitary Sewer Service Connections and Service Line	04/26/2013
33 31 70	Combination Air Valve for Sanitary Sewer Force Mains	12/20/2012
33 39 10	Cast-in-Place Concrete Manholes	12/20/2012
33 39 20	Precast Concrete Manholes	12/20/2012
33 39 30	Fiberglass Manholes	12/20/2012
33 39 40	Wastewater Access Chamber (WAC)	12/20/2012
33 39 60	Epoxy Liners for Sanitary Sewer Structures	12/20/2012
33 41 10	Reinforced Concrete Storm Sewer Pipe/Culverts	07/01/2011
33 41 11	High Density Polyethylene (HDPE) Pipe for Storm Drain	12/20/2012
33 41 12	Reinforced Polyethylene (SRPE) Pipe	11/13/2015
33 46 00	Subdrainage	12/20/2012
33 46 01	Slotted Storm Drains	07/01/2011
33 46 02	Trench Drains	07/01/2011
33 49 10	Cast-in-Place Manholes and Junction Boxes	12/20/2012
33 49 20	Curb and Drop Inlets	12/20/2012
33 49 40	Storm Drainage Headwalls and Wingwalls	07/01/2011

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34 41 10	Traffic Signals	10/12/2015
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34 41 10.02	Attachment B – Controller Specification	02/2012
34 41 10.03	Attachment C – Software Specification	01/2012
34 41 11	Temporary Traffic Signals	11/22/2013
34 41 13	Removing Traffic Signals	12/20/2012
34 41 15	Rectangular Rapid Flashing Beacon	11/22/2013
34 41 16	Pedestrian Hybrid Signal	11/22/2013
34 41 20	Roadway Illumination Assemblies	12/20/2012
34 41 20.01	Arterial LED Roadway Luminaires	06/15/2015
34 41 20.02	Freeway LED Roadway Luminaires	06/15/2015
34 41 20.03	Residential LED Roadway Luminaires	06/15/2015
34 41 30	Aluminum Signs	11/12/2013
34 41 50	Single-Mode Fiber Optic Cable	02/26/2016
34 71 13	Traffic Control	11/22/2013

Appendix

- GC 4.01 ~~Availability of Lands~~
- GC-4.02 Subsurface and Physical Conditions
- GC-4.04 Underground Facilities
- GC 4.06 ~~Hazardous Environmental Condition at Site~~
- GC 6.06.D ~~Minority and Women Owned Business Enterprise Compliance~~
- GC 6.07 ~~Wage Rates~~
- GC 6.09 ~~Permits and Utilities~~
- GC 6.24 ~~Nondiscrimination~~
- GR-01 60 00 Product Requirements

END OF SECTION

SECTION 00 11 13
INVITATION TO BIDDERS
FOR PUBLICLY BID PROJECTS ONLY

RECEIPT OF BIDS

Sealed bids for the construction of **MORNINGSTAR WESTPOINT - 24" SANITARY SEWER LINE** will be received by the City of Fort Worth Transportation & Public Works Department; IPRC:

City of Fort Worth
Purchasing Division

200 Texas Street Fort Worth, Texas 76102

until 1:30 P.M., Thursday, December 13th, 2023. Bids will be opened publicly and read aloud at 2:00 P.M. Thursday, December 13th, 2023 in the City Council Chambers located on the second floor of 200 Texas Street.

GENERAL DESCRIPTION OF WORK

The major work will consist of the (approximate) following:

The project will require the installation approximately 4,067 linear feet of 24" Sanitary Sewer transmission line along with associated sanitary sewer appurtenances with this project.

PREQUALIFICATION

The improvements included in this project must be performed by a contractor who is pre-qualified by the City at the time of bid opening. The procedures for qualification and pre-qualification are outlined in the **Section 00 21 13 – INSTRUCTIONS TO BIDDERS**.

DOCUMENTS AND PROCUREMENTS

Copies of the Bidding and Contract Documents may be acquired by Timothy J. Welch, P.E. at twelch@welcheng.com. A dropbox will be emailed to you. Contact Timothy J. Welch, P.E. at 817-253-3682, if you have questions. No hard copies will be provided only PDF files.

PREBID CONFERENCE

A prebid conference **will not be held** as described in Section 00 21 13 - INSTRUCTIONS TO BIDDERS at the following location, date, and time:

DATE: No Pre-Bid

TIME: No Pre-Bid

PLACE: No Pre-Bid

LOCATION: No Pre-Bid

DEVELOPER/CITY'S RIGHT TO ACCEPT OR REJECT BIDS

Developer and City reserves the right to waive irregularities and to accept or reject bids.

FUNDING

Any Contract awarded under this **INVITATION TO BIDDERS** is expected to be funded from revenues generated from user fees and/or bonds, etc. and dedicated by Resolution by City Council to the work under this **INVITATION TO BIDDERS**.

INQUIRIES

All inquiries relative to this procurement should be addressed to the following:

Attn: Timothy J. Welch, P.E., WELCH ENGINEERING, INC.

Email: twelch@welcheng.com

Phone: 817-253-3682

AND/OR

Attn: George Marquez, P.E., CITY OF FORT WORTH

Email: George.Marquez@fortworthtexas.gov

Phone: (817) 392-6826

PLAN HOLDERS

To ensure you are kept up to date of any new information pertinent to this project such as when an addenda is issued, download the Plan Holder Registration form to your computer, complete and email it to the City Project Manager or the design Engineer.

The City Project Manager and Design Engineer are responsible to upload the Plans Holder Registration form to the Plan Holders folder in BIM360.

Mail your completed Plan Holder Registration form to those listed in INQUIRIES above.

ADVERTISEMENT DATES

November 29, 2023

December 6, 2023

END OF SECTION

**SECTION 00 21 13 INSTRUCTIONS TO BIDDERS
DEVELOPER AWARDED CONTRACTS
FOR PUBLICLY BID PROJECTS ONLY**

1. Defined Terms

1.1. Certain additional terms used in these INSTRUCTIONS TO BIDDERS have the meanings indicated below which are applicable to both the singular and plural thereof.

1.1.1. Bidder: Any person, firm, partnership, company, association, or corporation acting directly through a duly authorized representative, submitting a bid for performing the work contemplated under the Contract Documents.

1.1.2. Successful Bidder: The responsible and responsive Bidder to whom Developer/City (on the basis of City's evaluation as hereinafter provided) makes an award.

2. Copies of Bidding Documents

2.1. Neither Developer/City nor Engineer shall assume any responsibility for errors or misinterpretations resulting from the Bidders use of incomplete sets of Bidding Documents.

2.2. Developer/City and Engineer in making copies of Bidding Documents available do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license or grant for any other use.

3. Prequalification of Bidders (Prime Contractors and Subcontractors)

3.1. All Bidders and their subcontractors are required to be prequalified for the work types requiring prequalification at the time of bidding. Bids received from contractors who are not prequalified (even if inadvertently opened) shall not be considered. Prequalification requirement work types and documentation are available by accessing all required files through the City's website at: <https://apps.fortworthtexas.gov/ProjectResources/>

3.1.1. Paving – Requirements document located at;

Resources/Construction Documents/Contractor Prequalification/TPW Paving Contractor Prequalification Program

3.1.2. Roadway and Pedestrian Lighting – Requirements document located at;

Resources/Construction Documents/Contractor Prequalification/TPW Roadway and Pedestrian Lighting Prequalification Program

3.1.3. Water and Sanitary Sewer – Requirements document located at;

02 - Construction Documents/Contractor Prequalification/Water and Sanitary Sewer Contractor Prequalification Program

3.2. Each Bidder unless currently prequalified, must be prepared to submit to City within seven (7) calendar days prior to Bid opening, the documentation identified in Section 00 45 11, BIDDERS PREQUALIFICATIONS.

3.2.1. Submission of and/or questions related to prequalification should be addressed to the City contact as provided in Paragraph 6.1.

3.3. The City reserves the right to require any pre-qualified contractor who is the successful bidder(s) for a project to submit such additional information as the City, in its sole discretion may require, including but not limited to manpower and equipment records, information about key personnel to be assigned to the project, and construction schedule, to assist the City in evaluating and assessing the ability of the successful bidder(s) to deliver a quality product and successfully complete projects for the amount bid within the stipulated time frame. Failure to submit the additional information, if requested, may be grounds for rejecting the successful bidder as non-responsive.

3.4. In addition to prequalification, additional requirements for qualification may be required within various sections of the Contract Documents.

3.5. Special qualifications required for this project include the following: N/A

4. Examination of Bidding and Contract Documents, Other Related Data, and Site

4.1. Before submitting a Bid, each Bidder shall:

4.1.1. Examine and carefully study the Contract Documents and other related data identified in the Bidding Documents (including "technical data" referred to in Paragraph 4.2. below). No information given by Developer/City or any representative of the Developer/City other than that contained in the Contract Documents and officially promulgated addenda thereto, shall be binding upon the Developer/City.

4.1.2. Visit the site to become familiar with and satisfy Bidder as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.

4.1.3. Consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work.

- 4.1.4. Be advised, City, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration of award.
- 4.1.5. Study all: (i) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in the Contract Documents as containing reliable "technical data" and (ii) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in the Contract Documents as containing reliable "technical data."
- 4.1.6. Be advised that the Contract Documents on file with the City shall constitute all of the information which the City will furnish. All additional information and data which the City will supply after promulgation of the formal Contract Documents shall be issued in the form of written addenda and shall become part of the Contract Documents just as though such addenda were actually written into the original Contract Documents. No information given by the City other than that contained in the Contract Documents and officially promulgated addenda thereto, shall be binding upon the City.
- 4.1.7. Perform independent research, investigations, tests, borings, and such other means as may be necessary to gain a complete knowledge of the conditions which will be encountered during the construction of the project. Bidder must fill all holes and clean up and restore the site to its former conditions upon completion of such explorations, investigations, tests and studies.
- 4.1.8. Determine the difficulties of the Work and all attending circumstances affecting the cost of doing the Work, time required for its completion, and obtain all information required to make a proposal. Bidders shall rely exclusively and solely upon their own estimates, investigation, research, tests, explorations, and other data which are necessary for full and complete information upon which the proposal is to be based. It is understood that the submission of a proposal is prima-facie evidence that the Bidder has made the investigation, examinations and tests herein required. Claims for additional compensation due to variations between conditions actually encountered in construction and as indicated in the Contract Documents will not be allowed.
- 4.1.9. Promptly notify Developer of all conflicts, errors, ambiguities or discrepancies in or between the Contract Documents and such other related documents. The Contractor shall not take advantage of any gross error or omission in the Contract Documents, and the Developer shall be permitted to make such corrections or interpretations as may be deemed necessary for fulfillment of the intent of the Contract Documents.

4.2. Reference is made to Section 00 73 00 – Supplementary Conditions for identification of:

- 4.2.1. those reports of explorations and tests of subsurface conditions at or contiguous to the site which have been utilized by Developer in preparation of the Contract Documents. The logs of Soil Borings, if any, on the plans are for general information only. Neither the Developer nor the Engineer guarantee that the data shown is representative of conditions which actually exist.
- 4.2.2. those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities) which are at or contiguous to the site that have been utilized by Developer in preparation of the Contract Documents.
- 4.2.3. copies of such reports and drawings will be made available by City to any Bidder on request. Bidder is responsible for any interpretation or conclusion drawn from any "technical data" or any other data, interpretations, opinions or information.
- 4.3. The submission of a Bid will constitute an incontrovertible representation by Bidder (i) that Bidder has complied with every requirement of this Paragraph 4, (ii) that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and applying the specific means, methods, techniques, sequences or procedures of construction (if any) that may be shown or indicated or expressly required by the Contract Documents, (iii) that Bidder has given Developer written notice of all conflicts, errors, ambiguities and discrepancies in the Contract Documents and the written resolutions thereof by Developer are acceptable to Bidder, and when said conflicts, etc., have not been resolved through the interpretations by Developer as described in Paragraph 6., and (iv) that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.
- 4.4. The provisions of this Paragraph 4, inclusive, do not apply to Asbestos, Polychlorinated biphenyls (PCBs), Petroleum, Hazardous Waste or Radioactive Material, unless specifically identified in the Contract Documents.

5. Availability of Lands for Work, Etc.

- 5.1. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Developer.

6. Interpretations and Addenda

- 6.1. All questions about the meaning or intent of the Bidding Documents are to be directed to Developer's/City's representative. Interpretations or clarifications considered necessary by Developer in response to such questions will be issued by Addenda delivered to all parties recorded by Developer as having received the Bidding Documents. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

Address questions to:

Attn: **TIMOTHY J. WELCH, P.E., WELCH ENGINEERING, INC.**
Email: twelch@welcheng.com
Phone: **(817) 253-3682**

AND/OR

Attn: Geroge Marquez, P.E., CITY OF FORT WORTH
Email: George.Marquez@fortworthtexas.gov
Phone: **(817) 392-6826**

- 6.2. Addenda may also be issued to modify the Bidding Documents as deemed advisable by Developer/City.
- 6.3. Addenda or clarifications may be posted via the City's document management and collaboration system site at : **N/A.**
- 6.4. A prebid conference may be held at the time and place indicated in the Advertisement or INVITATION TO BIDDERS. Representatives of Developer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. Developer's representative will transmit to all prospective Bidders of record such Addenda as Developer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

7. Bid Security

- 7.1. Each Bid must be accompanied by Bid Bond made payable to Developer in an amount of five (5) percent of Bidder's maximum Bid price on form attached, issued by a surety meeting the requirements as listed in the General Conditions.
- 7.2. The Bid Bond of all Bidders will be retained until the conditions of the Notice of Award have been satisfied. If the Successful Bidder fails to execute and deliver the complete Agreement within 10 days after the Notice of Award, Developer may consider Bidder to be in default, rescind the Notice of Award, and the Bid Bond of that Bidder will be forfeited. Such forfeiture shall be Developer's exclusive remedy if Bidder defaults. The Bid Bond of all other Bidders whom Developer believes to have a reasonable chance of receiving the award will be retained by Developer until final contract execution.

8. Contract Times

The number of days within which, or the dates by which, Milestones are to be achieved in accordance with the General Requirements and the Work is to be completed and ready for Final Acceptance is set forth in the Agreement or incorporated therein by reference to the attached Bid Form.

9. Liquidated Damages

Provisions for liquidated damages are set forth in the Agreement.

10. Substitute and "Or-Equal" Items

The Contract, if awarded, will be on the basis of materials and equipment described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is indicated or specified in the Bidding Documents that a "substitute" or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to City, application for such acceptance will not be considered by City until after the Effective Date of the Agreement. The procedure for submission of any such application by Contractor and consideration by City is set forth in Section 01 25 00 of the General Requirements.

11. Bid Form

- 11.1. All blanks on the Bid Form must be completed by printing in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each Bid item, alternative, and unit price item listed therein. In the case of optional alternatives, the words "No Bid," "No Change," or "Not Applicable" may be entered legibly, in ink or type, for which the Bidder proposes to do the work contemplated or furnish materials required.
- 11.2. Bids by corporations shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed. The corporate name, address and state of incorporation shall be shown below the signature.
- 11.3. Bids by partnerships shall be executed in the partnership name and signed by a partner, whose title must appear under the signature accompanied by evidence of authority to sign. The official name and address of the partnership shall be shown below the signature.
- 11.4. Bids by limited liability companies shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The name and state of formation of the firm and the official address of the firm shall be shown.
- 11.5. Bids by individuals shall show the Bidder's name and official address.
- 11.6. Bids by joint ventures shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 11.7. All names shall be typed or printed in ink below the signature.

- 11.8. The Bid shall contain an acknowledgement of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 11.9. Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 11.10. Evidence of authority to conduct business as a Nonresident Bidder in the state of Texas shall be provided in accordance with Section 00 43 37 – Vendor Compliance to State Law Non Resident Bidder.

12. Submission of Bids

- 12.1. Bids shall be submitted on the prescribed Bid Form and proposal form, provided with the Bidding Documents, at the time and place indicated in the Advertisement or INVITATION TO BIDDERS, addressed to City of Fort Worth Project Manager, and shall be enclosed in an opaque sealed envelope, marked with the City Project Number, Project title, the name and address of Bidder, and accompanied by the Bid security, if required, and other required documents.

13. Modification and Withdrawal of Bids

- 13.1. Bids cannot be withdrawn prior to the time set for bid opening. A request for withdrawal must be made in writing 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. After all Bids not requested for withdrawal are opened and publicly read aloud, the Bids for which a withdrawal request has been properly filed may, at the option of the Developer/City, be returned unopened.
- 13.2. Bidders may modify their Bid by electronic communication at any time prior to the time set for the closing of Bid receipt.

14. Opening of Bids

- 14.1. Bids will be opened and read aloud publicly at the place where Bids are to be submitted. 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

- 15.1. All Bids will remain subject to acceptance for the time period specified for Notice of Award and execution and delivery of a complete Agreement by Successful Bidder. Developer/City may, at their sole discretion, release any Bid and nullify the Bid security, if required, prior to that date.

16. Evaluation of Bids and Award of Contract

- 16.1. Developer/City reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced or conditional Bids and to reject the Bid of any Bidder if Developer/City believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by City. Developer/City also reserves the right to waive informalities not involving price, contract time or changes in the Work with the Successful Bidder. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
 - 16.1.1. Any or all bids will be rejected if Developer/City has reason to believe that collusion exists among the Bidders, Bidder is an interested party to any litigation against Developer/City, Developer/City or Bidder may have a claim against the other or be engaged in litigation, Bidder is in arrears on any existing contract or has defaulted on a previous contract, Bidder has performed a prior contract in an unsatisfactory manner, or Bidder has uncompleted work which in the judgment of the Developer/City will prevent or hinder the prompt completion of additional work if awarded.
- 16.2. Developer/City 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 Contract Documents or upon the request of the Developer/City. Developer/City 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.
- 16.3. Developer/City may conduct such investigations as Developer/City deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Developer's/City's satisfaction within the prescribed time.
- 16.4. If the Contract is to be awarded, it will be awarded to lowest responsible and responsive Bidder whose evaluation by Developer/City indicates that the award will be in the best interests of the Developer/City.
- 16.5. Failure or refusal to comply with the requirements may result in rejection of Bid.

17. Signing of Agreement

- 17.1. When Developer issues a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement. The Contractor shall sign and deliver the required number of counterparts of the Agreement to Developer's representative with the required Bonds, Certificates of Insurance, and all other required documentation.

END OF SECTION

SECTION 00 41 00 BID
Publicly Bid Developer Awarded Projects - BID FORM

TO: *The City of Fort Worth*
Transportation & Public Works Department
200 Texas Street
Fort Worth, Texas 76102

FOR: **MORNINGSTAR WESTPOINT - 24" SANITARY SEWER LINE**

City Project No.: 105124

Units/Sections: UNIT I: SANITARY SEWER IMPROVEMENTS

1. Enter Into Agreement

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Developer in the form included in the Bidding Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Bid 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 Acknowledgements and Certification

- 2.1. In submitting this Bid, Bidder accepts all of the terms and conditions of the INVITATION TO BIDDERS and INSTRUCTIONS TO BIDDERS, including without limitation those dealing with the disposition of Bid Bond.
- 2.2. Bidder is aware of all costs to provide the required insurance, will do so pending contract award, and will provide a valid insurance certificate meeting all requirements in the construction contract.
- 2.3. Bidder certifies that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
- 2.4. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
- 2.5. Bidder has not solicited or induced any individual or entity to refrain from bidding.
- 2.6. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph:
 - a. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process.
 - b. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Developer (b) to establish Bid prices at artificial non-competitive levels, or (c) to deprive Developer of the benefits of free and open competition.

- c. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Developer, a purpose of which is to establish Bid prices at artificial, non-competitive levels.
- d. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

3. Prequalification

The Bidder acknowledges that the following work types must be performed only by prequalified contractors and subcontractors:

- a. ***Sanitary Sewer Transmission, Development, 24-inches and smaller***

4. Time of Completion

- 4.1. Bidder agrees to complete WORK for FINAL ACCEPTANCE within working days after the date when the Contract Time commences to run as provided in the General Conditions.
- 4.2. Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work {and/or achievement of Milestones} within the times specified in the Agreement.

5. Attached to this Bid

The following documents are attached to and made a part of this Bid:

- a. This Bid Form, Section 00 41 00
- b. Proposal Form, Section 00 42 43
- c. Required Bid Bond, Section 00 43 13 issued by a surety meeting the requirements of Paragraph 5.01 of the General Conditions.
- d. MBE Forms *(if applicable)*
- e. Prequalification Statement, Section 00 45 12
- f. Any additional documents that may be required by Section 12 of the Instructions to Bidders
- g. Bidder pre-qualification application *(Optional)*

SECTION 00 42 43
Developer Awarded Projects - PROPOSAL FORM

UNIT PRICE BID

Bidder's Application

Project Item Information					Bidder's Proposal	
Bidlist Item No.	Description	Specification Section No.	Unit of Measure	Bid Quantity	Unit Price	Bid Value
UNIT II: SANITARY SEWER IMPROVEMENTS						
2-14	3331.4309 24" HDPE DR-17 DIPS Pipe	33 41 10, 33 31 13 33 05 10	LF	3,819		
2-15	3305.0202 Imported Embedment/Backfill, CSS	33 05 10	CY	50		
2-16	3305.0203 Imported Embedment/Backfill, CLSM (D201B01)	33 05 10	CY	2,400		
2-16A	3305.0116 Concrete Encasement for Utility Pipes	33 05 10	CY	56		
2-17	3331.4323 24" DIP Sewer Pipe	33 11 10	LF	249		
2-18	9999.0207 Epoxy Coating	33 05 10	LF	404		
2-18A	3305.1007 42" Casing by Open Cut	33 05 22	LF	155		
2-19	3305.0109 Trench Safety	33 05 10	LF	4,472		
2-20	9999.0210 Wagner No. 2050-200 Order Control (See Sheet 33A)	33 39 60	EA	1		
2-21	9999.0211 Wagner No. 2050-450 Order Control (See Sheet 33A)	33 39 60	EA	4		
2-22	3301.0002 Post-CCTV Inspection	33 01 31	LF	4,068		
2-26	3339.1101 5' Manhole (0-6' Depth)	33 39 20	EA	18		
2-27	3339.1102 5' Drop Manhole (0-6' Depth)	33 39 20	EA	3		
2-28	3339.1103 5' Extra Depth Manhole	33 39 20	VF	312		
2-29	3339.0001 Epoxy Manhole Coating (24" Manholes Only)	33 39 60	VF	475		
2-30	3301.0101 Manhole Vacuum Testing	33 01 30	EA	21		
2-34	3305.0113 Trench Water Stops	33 11 10	EA	7		
2-35	3137.0102 Twisted Gabion Baskets	31 37 00	SY	356		
TOTAL UNIT II: SANITARY SEWER IMPROVEMENTS						

Bid Summary

UNIT II: SANITARY SEWER IMPROVEMENTS	
Total Construction Bid	

This Bid is submitted by the entity named below:

BIDDER:

<Company Name Here>
<Address Here>
<Address Here or Blank>
<City, State Zip Code Here>

BY: <Name of Principal Here>

<Signature Here>

TITLE: <Title Here>

DATE: <Date Here>

Contractor agrees to complete WORK for FINAL ACCEPTANCE within working days after the date when the CONTRACT commences to run as provided in the General Conditions.

END OF SECTION

SECTION 00 42 15
PREQUALIFICATION STATEMENT

Each Bidder is required to complete the information below by identifying the prequalified contractors and/or subcontractors whom they intend to utilize for the major work type(s) listed. In the "Major Work Type" box provide the complete major work type and actual description as provided by the Water Department for water and sewer and TPW for paving.

Major Work Type	Contractor/Subcontractor Company Name	Prequalification Expiration Date
<i>Sanitary Sewer Transmission, Development, 24-inches and smaller</i>	<i><Company Name Here or Blank></i>	<i><Date Here or Blank></i>

The undersigned hereby certifies that the contractors and/or subcontractors described in the table above are currently prequalified for the work types listed.

BIDDER:

<Company Name Here>
<Address Here>
<Address Here or Blank>
<City, State, Zip Code Here>

BY: *<Name of Principal>*

 (Signature)

TITLE *<Title Here>*
 DATE: *<Date Here>*

SECTION 00 43 13
DAP - BID BOND

BY THESE PRESENTS:

That we, _____, (Bidding Company Name) called the Principal, and _____ (Surety Name) a corporation or firm duly authorized to transact surety business in the State of Texas, hereinafter called the Surety, are held and firmly bound unto the City, hereinafter called the Obligee, in the sum of _____ and No/100 Dollars (\$ dollar value number)said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firm by these presents.

WHEREAS the Principal has submitted a proposal to perform work for the following project of the Obligee identified as:

MORNINGSTAR – WESTPOINT 24” SANITARY SEWER LINE

NOW, THEREFORE, if the Obligee shall award the Contract for the foregoing project to the Principal, and the Principal shall satisfy all requirements and conditions required for the execution of the Contract and shall enter into the Contract in writing with the Obligee in accordance with the terms of such proposal, then this bond shall be null and void. If the Principal fails to execute such Contract in accordance with the terms of such proposal or fails to satisfy all requirements and conditions required for the execution of the Contract in accordance with the proposal, this bond shall become the property of the Obligee, without recourse of the Principal and/or Surety, not to exceed the penalty hereof, and shall be used to compensate Obligee for the difference between Principal’s Total Bid Amount and the next selected Bidder’s Total Bid Amount.

SIGNED this _____ day of _____, 20__.

By: _____ (Bidding Company Name)

(Signature and Title of Principal)

By: _____ (Surety Name)

(Signature of Attorney-of-Fact)

*Attach Power of Attorney (Surety) for Attorney-in-Fact

Impressed
Surety Seal
Only

END OF SECTION

1 **SECTION 00 45 11**
2 **BIDDERS PREQUALIFICATIONS**

3
4 **1. Summary.** A Bidder or their designated subcontractors are required to be prequalified or
5 have applied for prequalification by the City for the work types requiring prequalification
6 prior to submitting bids. To be considered for award of contract the Bidder must submit
7 Section 00 45 12, PREQUALIFICATION STATEMENT for the work type(s) listed with
8 their Bid. Any contractor or subcontractor who is not prequalified for the work type(s) listed
9 must submit Section 00 45 13, PREQUALIFICATION APPLICATION in accordance with
10 the requirements below. **The information must be submitted seven (7) days prior to the**
11 **date of the opening of bids.** Subcontractors must follow the same timelines as contractors
12 for obtaining prequalification review. Bidders or Subcontractors who are not prequalified at
13 the time bids are opened and reviewed may cause the bid to be rejected.

14
15
16 The prequalification process will establish a bid limit based on a technical evaluation and
17 financial analysis of the contractor. For example, a contractor wishing to submit bids on
18 projects to be opened on the 7th of April must file the information by the 31st day of March
19 in order to be eligible to work on these projects. In order to facilitate the approval of a Bidder's
20 Prequalification Application, the following must accompany the submission.

- 21 a. A complete set of audited or reviewed financial statements.
- 22 (1) Classified Balance Sheet
23 (2) Income Statement
24 (3) Statement of Cash Flows
25 (4) Statement of Retained Earnings
26 (5) Notes to the Financial Statements, if any
- 27 b. A certified copy of the firm's organizational documents (Corporate Charter, Articles
28 of Incorporation, Articles of Organization, Certificate of Formation, LLC
29 Regulations, and Certificate of Limited Partnership Agreement).
- 30 c. A completed Bidder Prequalification Application.
- 31 (1) The firm's Texas Taxpayer Identification Number as issued by the Texas
32 Comptroller of Public Accounts. To obtain a Texas Taxpayer Identification
33 number visit the Texas Comptroller of Public Accounts online at the
34 following web address www.window.state.tx.us/taxpermit/ and fill out the
35 application to apply for your Texas tax ID.
36 (2) The firm's e-mail address and fax number.
37 (3) The firm's DUNS number as issued by Dun & Bradstreet. This number
38 is used by the City for required reporting on Federal Aid projects. The DUNS
39 number may be obtained at www.dnb.com.
- 40 d. Resumes reflecting the construction experience of the principles of the firm for firms
41 submitting their initial prequalification. These resumes should include the size and
42 scope of the work performed.
- 43 e. Other information as requested by the City.

44
45 **2. Prequalification Requirements**

- 46 a. *Financial Statements.* Financial statement submission must be provided in
47 accordance with the following:
48 (1) The City requires that the original Financial Statement or a certified copy
49 be submitted for consideration.

- (2) To be satisfactory, the financial statements must be audited or reviewed by an independent, certified public accounting firm registered and in good standing in any state. Current Texas statues also require that accounting firms performing audits or reviews on business entities within the State of Texas be properly licensed or registered with the Texas State Board of Public Accountancy.
 - (3) The accounting firm should state in the audit report or review whether the contractor is an individual, corporation, or limited liability company.
 - (4) Financial Statements must be presented in U.S. dollars at the current rate of exchange of the Balance Sheet date.
 - (5) The City will not recognize any certified public accountant as independent who is not, in fact, independent.
 - (6) The accountant's opinion on the financial statements of the contracting company should state that the audit or review has been conducted in accordance with auditing standards generally accepted in the United States of America. This must be stated in the accounting firm's opinion. It should: (1) express an unqualified opinion, or (2) express a qualified opinion on the statements taken as a whole.
 - (7) The City reserves the right to require a new statement at any time.
 - (8) The financial statement must be prepared as of the last day of any month, not more than one year old and must be on file with the City 16 months thereafter, in accordance with Paragraph 1.
 - (9) The City will determine a contractor's bidding capacity for the purposes of awarding contracts. Bidding capacity is determined by multiplying the positive net working capital (working capital = current assets – current liabilities) by a factor of 10. Only those statements reflecting a positive net working capital position will be considered satisfactory for prequalification purposes.
 - (10) In the case that a bidding date falls within the time a new financial statement is being prepared, the previous statement shall be updated with proper verification.
- b. *Bidder Prequalification Application.* A Bidder Prequalification Application must be submitted along with audited or reviewed financial statements by firms wishing to be eligible to bid on all classes of construction and maintenance projects. **Incomplete Applications will be rejected.**
- (1) In those schedules where there is nothing to report, the notation of "None" or "N/A" should be inserted.
 - (2) A minimum of five (5) references of related work must be provided.
 - (3) Submission of an equipment schedule which indicates equipment under the control of the Contractor and which is related to the type of work for which the Contractor is seeking prequalification. The schedule must include the manufacturer, model and general common description of each piece of equipment. Abbreviations or means of describing equipment other than provided above will not be accepted.

3. Eligibility for Award of Contract

- a. The City shall be the sole judge as to a contractor's prequalification.
- b. The City may reject, suspend, or modify any prequalification for failure by the contractor to demonstrate acceptable financial ability or performance.
- c. The City will issue a letter as to the status of the prequalification approval.

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- d. If a contractor has a valid prequalification letter, the contractor will be eligible to perform the prequalified work types until the expiration date stated in the letter.

END OF SECTION

BUSINESS CLASSIFICATION

The following should be completed in order that we may properly classify your firm:
(Check the block(s) which are applicable – Block 3 is to be left blank if Block 1 and/or Block 2 is checked)

- Has fewer than 100 employees
and/or
- Has less than \$6,000,000.00 in annual gross receipts
- OR**
- Does not meet the criteria for being designated a small business as provided in Section 2006.001 of the Texas Government Code.

The classification of your firm as a small or large business is not a factor in determining eligibility to become prequalified.

Select major work categories for which you would like to be prequalified (**City may deem you are not qualified for selected category or may approve you at a lesser size/length and maximum size may not be listed specifically under a major work category**):

MAJOR WORK CATEGORIES

Water Department

- Augur Boring - 24-inch diameter casing and less
- Augur Boring - Greater than 24-inch diameter casing and greater
- Tunneling – 36-Inches – 60 –inches, and 350 LF or less
- Tunneling - 36-Inches – 60 –inches, and greater than 350 LF
- Tunneling – 66” and greater, 350 LF and greater
- Tunneling – 66” and greater, 350 LF or Less
- Cathodic Protection
- Water Distribution, Development, 8-inch diameter and smaller
- Water Distribution, Urban and Renewal, 8-inch diameter and smaller
- Water Distribution, Development, 12-inch diameter and smaller
- Water Distribution, Urban and Renewal, 12-inch diameter and smaller
- Water Transmission, Development, 24-inches and smaller
- Water Transmission, Urban/Renewal, 24-inches and smaller
- Water Transmission, Development, 42-inches and smaller
- Water Transmission, Urban/Renewal, 42-inches and smaller
- Water Transmission, Development, All Sizes
- Water Transmission, Urban/Renewal, All Sizes
- Sewer Bypass Pumping, 18-inches and smaller
- Sewer Bypass Pumping, 18-inches – 36-inches
- Sewer Bypass Pumping 42-inches and larger
- CCTV, 8-inches and smaller
- CCTV, 12-inches and smaller
- CCTV, 18-inches and smaller
- CCTV, 24-inches and smaller

MAJOR WORK CATEGORIES, CONTINUED

- CCTV, 42-inches and smaller
 - CCTV, 48-inches and smaller
 - Sewer CIPP, 12-inches and smaller
 - Sewer CIPP, 24-inches and smaller
 - Sewer CIPP, 42-inches and smaller
 - Sewer CIPP, All Sizes
 - Sewer Collection System, Development, 8-inches and smaller
 - Sewer Collection System, Urban/Renewal, 8-inches and smaller
 - Sewer Collection System, Development, 12-inches and smaller
 - Sewer Collection System, Urban/Renewal, 12-inches and smaller
 - Sewer Interceptors, Development, 24-inches and smaller
 - Sewer Interceptors, Urban/Renewal, 24-inches and smaller
 - Sewer Interceptors, Development, 42-inches and smaller
 - Sewer Interceptors, Urban/Renewal, 42-inches and smaller
 - Sewer Interceptors, Development, 48-inches and smaller
 - Sewer Interceptors, Urban/Renewal, 48-inches and smaller
 - Sewer Pipe Enlargement 12-inches and smaller
 - Sewer Pipe Enlargement 24-inches and smaller
 - Sewer Pipe Enlargement, All Sizes
 - Sewer Cleaning , 24-inches and smaller
 - Sewer Cleaning , 42-inches and smaller
 - Sewer Cleaning , All Sizes
 - Sewer Cleaning, 8-inches and smaller
 - Sewer Cleaning, 12-inches and smaller
 - Sewer Siphons 12-inches or less
 - Sewer Siphons 24-inches or less
 - Sewer Siphons 42-inches or less
 - Sewer Siphons All Sizes
- Transportation Public Works**
- Asphalt Paving Construction/Reconstruction (LESS THAN 15,000 square yards)
 - Asphalt Paving Construction/Reconstruction (15,000 square yards and GREATER)
 - Asphalt Paving Heavy Maintenance (UNDER \$1,000,000)
 - Asphalt Paving Heavy Maintenance (\$1,000,000 and OVER)
 - Concrete Paving Construction/Reconstruction (LESS THAN 15,000 square yards)*
 - Concrete Paving Construction/Reconstruction (15,000 square yards and GREATER)*
 - Roadway and Pedestrian Lighting

NOTE *There is not a prequalification requirement for installation of concrete sidewalk, curb & gutter, driveways, and panel replacement, only concrete **paving**

1. List equipment you do not own but which is available by renting

DESCRIPTION OF EQUIPMENT	NAME AND DETAILED ADDRESS OF OWNER

2. How many years has your organization been in business as a general contractor under your present name? _____

List previous business names: _____

3. How many years of experience in _____ construction work has your organization had:

(a) As a General Contractor: _____ (b) As a Sub-Contractor: _____

4. *What projects has your organization completed in Texas and elsewhere?

CONTRACT AMOUNT	CLASS OF WORK	DATE COMPLETED	LOCATION CITY-COUNTY-STATE	NAME AND DETAILED ADDRESS OF OFFICIAL TO WHOM YOU REFER

*If requalifying only show work performed since last statement.

5. Have you ever failed to complete any work awarded to you? _____

If so, where and why? _____

6. Has any officer or owner of your organization ever been an officer of another organization that failed to complete a contract? _____

If so, state the name of the individual, other organization and reason. _____

7. Has any officer or owner of your organization ever failed to complete a contract executed in his/her name? _____

If so, state the name of the individual, name of owner and reason. _____

8. In what other lines of business are you financially interested? _____

9. Have you ever performed any work for the City? _____
 If so, when and to whom do you refer? _____

10. State names and detailed addresses of all producers from whom you have purchased principal materials during the last three years.

NAME OF FIRM OR COMPANY	DETAILED ADDRESS

11. Give the names of any affiliates or relatives currently debarred by the City. Indicate your relationship to this person or firm. _____

12. What is the construction experience of the principal individuals in your organization?

NAME	PRESENT POSITION OR OFFICE	YEARS OF EXPERIENCE	MAGNITUDE AND TYPE OF WORK	IN WHAT CAPACITY

13. If any owner, officer, director, or stockholder of your firm is an employee of the City, or shares the same household with a City employee, please list the name of the City employee and the relationship. In addition, list any City employee who is the spouse, child, or parent of an owner, officer, stockholder, or director who does not live in the same household but who receives care and assistance from that person as a direct result of a documented medical condition. This includes foster children or those related by adoption or marriage. _____

CORPORATION BLOCK	PARTNERSHIP BLOCK
If a corporation:	If a partnership:
Date of Incorporation _____	State of Organization _____
Charter/File No. _____	Date of organization _____
President _____	Is partnership general, limited, or registered limited liability partnership?
Vice Presidents _____	
	File No. (if Limited Partnership) _____
	General Partners/Officers
Secretary _____	Limited Partners (if applicable)
Treasurer _____	
LIMITED LIABILITY COMPANY BLOCK	
If a corporation:	
State of Incorporation _____	
Date of organization _____	
File No. _____	Individuals authorized to sign for Partnership
Officers or Managers (with titles, if any)	

Except for limited partners, the individuals listed in the blocks above are presumed to have full signature authority for your firm unless otherwise advised. Should you wish to grant signature authority for additional individuals, please attach a certified copy of the corporate resolution, corporate minutes, partnership agreement, power of attorney or other legal documentation which grants this authority.

14. Equipment

\$ _____

TOTAL

Similar types of equipment may be lumped together. If your firm has more than 30 types of equipment, you may show these 30 types and show the remainder as "various". The City, by allowing you to show only 30 types of equipment, reserves the right to request a complete, detailed list of all your equipment.

The equipment list is a representation of equipment under the control of the firm and which is related to the type of work for which the firm is seeking qualification. In the description include, the manufacturer, model, and general common description of each.

ITEM	QUANTITY	ITEM DESCRIPTION	BALANCE SHEET VALUE
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27			
28			
29			
30			
		Various-	
		TOTAL	

BIDDER PREQUALIFICATION AFFIDAVIT

STATE OF _____
COUNTY OF _____

The undersigned hereby declares that the foregoing is a true statement of the financial condition of the entity herein first named, as of the date herein first given; that this statement is for the express purpose of inducing the party to whom it is submitted to award the submitter a contract; and that the accountant who prepared the balance sheet accompanying this report as well as any depository, vendor or any other agency herein named is hereby authorized to supply each party with any information, while this statement is in force, necessary to verify said statement.

_____, being duly sworn, deposes and says that he/she is the _____ of _____, the entity described in and which executed the foregoing statement that he/she is familiar with the books of the said entity showing its financial condition; that the foregoing financial statement taken from the books of the said entity as of the date thereof and that the answers to the questions of the foregoing Bidder Prequalification Application are correct and true as of the date of this affidavit.

Firm Name: _____

Signature: _____

Sworn to before me this _____ day of _____, _____

Notary Public

Notary Public must not be an officer, director, or stockholder or relative thereof.

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SECTION 00 45 26
CONTRACTOR COMPLIANCE WITH WORKER'S COMPENSATION LAW

Pursuant to Texas Labor Code Section 406.096(a), as amended, Contractor certifies that it provides worker's compensation insurance coverage for all of its employees employed on City Project No. **105124**. Contractor further certifies that, pursuant to Texas Labor Code, Section 406.096(b), as amended, it will provide to City its subcontractor's certificates of compliance with worker's compensation coverage.

CONTRACTOR:

Company By: _____
(Please Print)

Address Signature: _____

City/State/Zip Title: _____
(Please Print)

THE STATE OF TEXAS §
COUNTY OF TARRANT §

BEFORE ME, the undersigned authority, on this day personally appeared _____, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same as the act and deed of _____ for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this _____ day of _____, 20__.

Notary Public in and for the State of Texas

END OF SECTION

**CITY OF FORT WORTH
Plan Holder Registration**



This Document contains:

Plan Holder Registration	Page	1
Plan Holder Registration Instructions	Page	2

To the Plan Holder,

By downloading this form to your computer, completing, and emailing to the individuals listed below, you help insure that you are kept up to date of any new information pertaining to this project such as addendums.

Please email this completed document to:

Timothy Welch, P.E.
Welch Engineering, Inc.
Twelch@welcheng.com

AND

George Marquez, City of Fort Worth City of Fort Worth
george.marquez@fortworthtexas.gov

Below To Be Completed by Plan Holder

PLAN HOLDER REGISTRATION

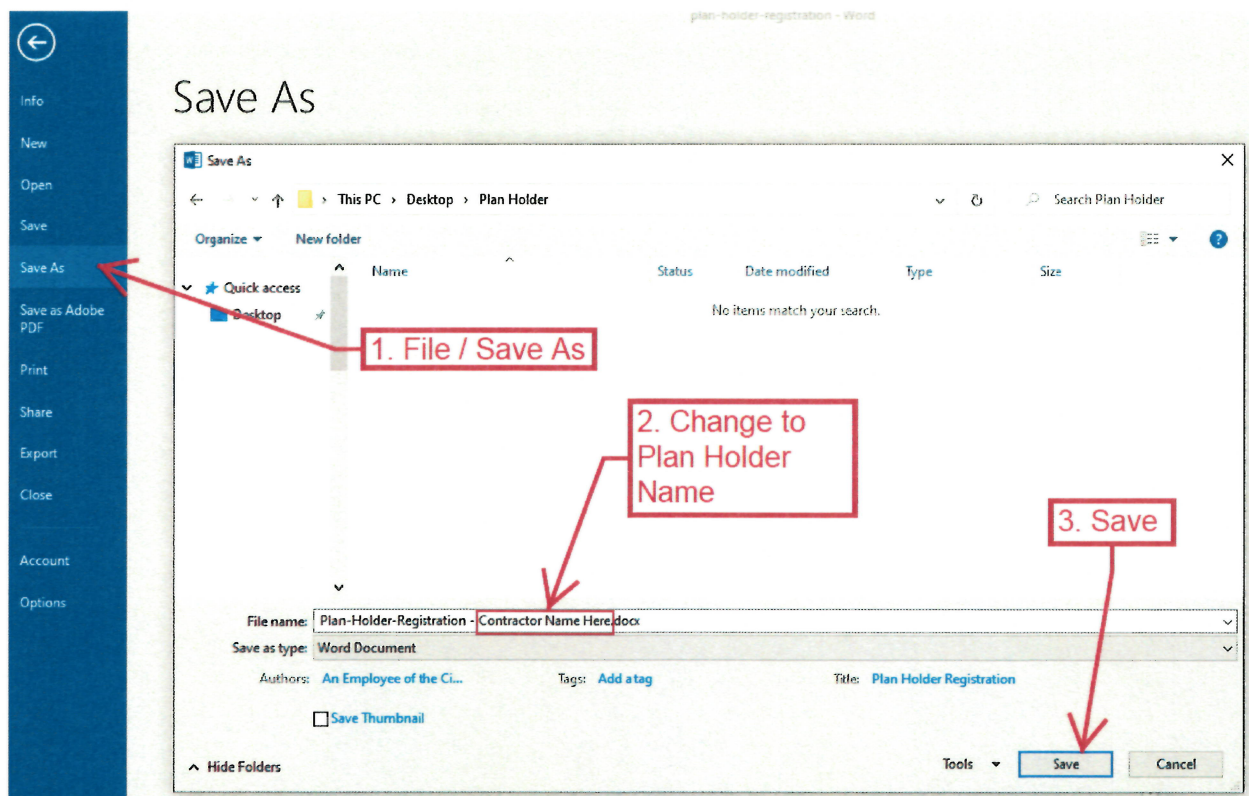
- Plan Holder: Prime
- Contact Name: Sub
- Address: Both
- City: Reprographic Service
- State: Zip: Information Service
- Phone: Supplier
- Fax:
- Email:
- Comments:

Plan Holder Registration Instructions

Complete the Registration on page 1 then

1. Click File – Save As, then
2. Change the portion of the file name ‘*Plan Holder Name Here*’ with your company name, then
3. **Save** to your computer

See next page



Replace “Plan Holder Name Here” with your Company Name.

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SECTION 00 61 25
CERTIFICATE OF INSURANCE

INSERT CERTIFICATE OF INSURANCE DOCUMENTS

END OF SECTION

SECTION 00 62 13
PERFORMANCE BOND

1
2
3
4 **THE STATE OF TEXAS** §
5 § **KNOW ALL BY THESE PRESENTS:**
6 **COUNTY OF TARRANT** §

7 That we, _____, known as
8 “Principal” herein and _____, a corporate
9 surety(sureties, if more than one) duly authorized to do business in the State of Texas, known as
10 “Surety” herein (whether one or more), are held and firmly bound unto the Developer, authorized
11 to do business in Texas (“Developer”) and the City of Fort Worth, a Texas municipal corporation
12 (“City”), in the penal sum of, _____ Dollars
13 (\$ _____), lawful money of the United States, to be paid in Fort Worth,
14 Tarrant County, Texas for the payment of which sum well and truly to be made jointly unto the
15 Developer and the City as dual obligees, we bind ourselves, our heirs, executors, administrators,
16 successors and assigns, jointly and severally, firmly by these presents.

17 **WHEREAS**, Developer and City have entered into an Agreement for the construction of
18 community facilities in the City of Fort Worth by and through a Community Facilities
19 Agreement, CFA Number _____;and

20 **WHEREAS**, the Principal has entered into a certain written contract with the Developer awarded
21 the _____ day of _____, 20____, which Contract is hereby referred to and made a
22 part hereof for all purposes as if fully set forth herein, to furnish all materials, equipment labor
23 and other accessories defined by law, in the prosecution of the Work, including any Change
24 Orders, as provided for in said Contract designated as **MORNINGSTAR WESTPOINT 24”**
25 **SANITARY SEWER.**

26 **NOW, THEREFORE**, the condition of this obligation is such that if the said Principal
27 shall faithfully perform it obligations under the Contract and shall in all respects duly and
28 faithfully perform the Work, including Change Orders, under the Contract, according to the plans,
29 specifications, and contract documents therein referred to, and as well during any period of
30 extension of the Contract that may be granted on the part of the Developer and/or City, then this
31 obligation shall be and become null and void, otherwise to remain in full force and effect.

1 **PROVIDED FURTHER**, that if any legal action be filed on this Bond, venue shall lie in
2 Tarrant County, Texas or the United States District Court for the Northern District of Texas, Fort
3 Worth Division.

4 This bond is made and executed in compliance with the provisions of Chapter 2253 of the
5 Texas Government Code, as amended, and all liabilities on this bond shall be determined in
6 accordance with the provisions of said statute.

7 **IN WITNESS WHEREOF**, the Principal and the Surety have SIGNED and SEALED
8 this instrument by duly authorized agents and officers on this the _____ day of _____
9 _____, 20____.

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PRINCIPAL:

BY: _____
Signature

ATTEST:

(Principal) Secretary

Name and Title
Address: _____

Witness as to Principal

SURETY:

BY: _____
Signature

Name and Title
Address: _____

Witness as to Surety

Telephone Number: _____

*Note: If signed by an officer of the Surety Company, there must be on file a certified extract from the by-laws showing that this person has authority to sign such obligation. If Surety's physical address is different from its mailing address, both must be provided.

- 1 The date of the bond shall not be prior to the date the Contract is awarded.
- 2

1 This bond is made and executed in compliance with the provisions of Chapter 2253 of the
2 Texas Government Code, as amended, and all liabilities on this bond shall be determined in
3 accordance with the provisions of said statute.

4 **IN WITNESS WHEREOF**, the Principal and Surety have each SIGNED and SEALED
5 this instrument by duly authorized agents and officers on this the _____ day of
6 _____, 20_____.

7

PRINCIPAL:

ATTEST:

(Principal) Secretary

BY: _____
Signature

Name and Title
Address: _____

Witness as to Principal

SURETY:

ATTEST:

(Surety) Secretary

BY: _____
Signature

Name and Title
Address: _____

Witness as to Surety

Telephone Number: _____

8
9 Note: If signed by an officer of the Surety, there must be on file a certified extract from the
10 bylaws showing that this person has authority to sign such obligation. If Surety's physical
11 address is different from its mailing address, both must be provided.

12
13 The date of the bond shall not be prior to the date the Contract is awarded.

14 **END OF SECTION**

SECTION 00 62 19
MAINTENANCE BOND

THE STATE OF TEXAS §
 § **KNOW ALL BY THESE PRESENTS:**
COUNTY OF TARRANT §

That we _____, known as “Principal”
herein and _____, a corporate surety (sureties, if
more than one) duly authorized to do business in the State of Texas, known as “Surety” herein
(whether one or more), are held and firmly bound unto the Developer, ,authorized to do business
in Texas (“Developer”) and the City of Fort Worth, a Texas municipal corporation (“City”), in
the sum of _____ Dollars
(\$ _____), lawful money of the United States, to be paid in Fort Worth,
Tarrant County, Texas, for payment of which sum well and truly be made jointly unto the
Developer and the City as dual obligees and their successors, we bind ourselves, our heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Developer and City have entered into an Agreement for the construction of
community facilities in the City of Fort Worth by and through a Community Facilities
Agreement, CFA Number _____; and

WHEREAS, the Principal has entered into a certain written contract with the Developer
awarded the _____ day of _____, 20____, which Contract is
hereby referred to and a made part hereof for all purposes as if fully set forth herein, to furnish all
materials, equipment labor and other accessories as defined by law, in the prosecution of the
Work, including any Work resulting from a duly authorized Change Order (collectively herein,
the “Work”) as provided for in said Contract and designated as MORNINGSTAR WESTPOINT
– 24” SANITARY SEWER; and

WHEREAS, Principal binds itself to use such materials and to so construct the Work in
accordance with the plans, specifications and Contract Documents that the Work is and will
remain free from defects in materials or workmanship for and during the period of **two (2) years**
after the date of Final Acceptance of the Work by the City (“Maintenance Period”); and

1 **WHEREAS**, Principal binds itself to repair or reconstruct the Work in whole or in part
2 upon receiving notice from the Developer and/or City of the need thereof at any time within the
3 Maintenance Period.

4
5 **NOW THEREFORE**, the condition of this obligation is such that if Principal shall
6 remedy any defective Work, for which timely notice was provided by Developer or City, to a
7 completion satisfactory to the City, then this obligation shall become null and void; otherwise to
8 remain in full force and effect.

9
10 **PROVIDED, HOWEVER**, if Principal shall fail so to repair or reconstruct any timely
11 noticed defective Work, it is agreed that the Developer or City may cause any and all such
12 defective Work to be repaired and/or reconstructed with all associated costs thereof being borne
13 by the Principal and the Surety under this Maintenance Bond; and

14
15 **PROVIDED FURTHER**, that if any legal action be filed on this Bond, venue shall lie in
16 Tarrant County, Texas or the United States District Court for the Northern District of Texas, Fort
17 Worth Division; and

18
19 **PROVIDED FURTHER**, that this obligation shall be continuous in nature and
20 successive recoveries may be had hereon for successive breaches.

1 **IN WITNESS WHEREOF**, the Principal and the Surety have each SIGNED and SEALED this
2 instrument by duly authorized agents and officers on this the _____ day of _____
3 _____, 20____.

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PRINCIPAL:

BY: _____
Signature

ATTEST:

(Principal) Secretary

Name and Title
Address: _____

Witness as to Principal

SURETY:

BY: _____
Signature

ATTEST:

(Surety) Secretary

Name and Title
Address: _____

Witness as to Surety

Telephone Number: _____

*Note: If signed by an officer of the Surety Company, there must be on file a certified extract from the by-laws showing that this person has authority to sign such obligation. If Surety's physical address is different from its mailing address, both must be provided.

The date of the bond shall not be prior to the date the Contract is awarded.

ARTICLE 1 –



License Agreement

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c/o National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314
Phone: (703) 684-2845
Fax: (703) 836-4875
e-mail: aschwartz@nspe.org

You acknowledge that you have read this License Agreement, understand it and agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the License Agreement and supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this License Agreement.

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(703) 684-2882
www.nspe.org

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

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

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



Endorsed by



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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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www.nspe.org

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(202) 347-7474
www.acec.org

American Society of Civil Engineers
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**STANDARD GENERAL CONDITIONS OF THE
CONSTRUCTION CONTRACT**

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ARTICLE 2 – DEFINITIONS AND TERMINOLOGY

2.01 *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. §§5101 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.

2.02 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 3 – PRELIMINARY MATTERS

3.01 *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.

3.02 *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.

3.03 *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.

3.04 *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.

3.05 *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.

3.06 *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 4 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

4.01 *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.

4.02 *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.

4.03 *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).

4.04 *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.

4.05 *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 5 – COMMENCEMENT AND PROGRESS OF THE WORK

5.01 *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.

5.02 *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.

5.03 *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.

5.04 *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.

5.05 *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 6 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

6.01 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.

6.02 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.

6.03 *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.

6.04 *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.

6.05 *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.

6.06 *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.I 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 7 – BONDS AND INSURANCE

7.01 *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.

7.02 *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.

7.03 *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.

7.04 *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.

7.05 *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.

7.06 *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.

7.07 *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 8 – CONTRACTOR'S RESPONSIBILITIES

8.01 *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.

8.02 *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.

8.03 *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.

8.04 "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 considered the proposed item as a substitute pursuant to Paragraph 7.05.

8.05 *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.

8.06 *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.

8.07 *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.

8.08 *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

8.09 *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.

8.10 *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.

8.11 *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.

8.12 *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.

8.13 *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.

8.14 *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.

8.15 *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.

8.16 *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.

8.17 *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.

8.18 *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.

8.19 *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 9 – OTHER WORK AT THE SITE

9.01 *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.

9.02 *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.

9.03 *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 for whom the Owner is responsible 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 10 – OWNER'S RESPONSIBILITIES

10.01 Communications to Contractor

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

10.02 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.

10.03 Furnish Data

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

10.04 Pay When Due

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

10.05 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.

10.06 Insurance

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

10.07 Change Orders

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

10.08 *Inspections, Tests, and Approvals*

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

10.09 *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.

10.10 *Undisclosed Hazardous Environmental Condition*

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

10.11 *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).

10.12 *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 11 – ENGINEER'S STATUS DURING CONSTRUCTION

11.01 *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.

11.02 *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.

11.03 *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.

11.04 *Rejecting Defective Work*

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

11.05 *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.

11.06 *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.

11.07 *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.

11.08 *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.

11.09 *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 12 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

12.01 *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.

12.02 *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.

12.03 *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.

12.04 *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 11.04.C.2.a and 11.04.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.

12.05 *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.

12.06 *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.

12.07 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.

12.08 *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 13 – CLAIMS

13.01 *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 14 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

14.01 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.

14.02 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.

14.03 *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 15 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

15.01 *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.

15.02 *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.

15.03 *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.

15.04 *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.

15.05 *Uncovering Work*

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

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

15.06 *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.

15.07 *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 16 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

16.01 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.

16.02 *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.

16.03 *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.

16.04 *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.

16.05 *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.

16.06 *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.

16.07 *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.

16.08 *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 17 – SUSPENSION OF WORK AND TERMINATION

17.01 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.

17.02 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.

17.03 *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.

17.04 *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 18 – FINAL RESOLUTION OF DISPUTES

18.01 *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 19 – MISCELLANEOUS

19.01 *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.

19.02 *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.

19.03 *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.

19.04 *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.

19.05 *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.

19.06 *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.

19.07 *Controlling Law*

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

19.08 *Headings*

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

Section 00 73 00

Supplemental Conditions to the Standard General Conditions of the Construction Contract

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Section 00 73 00

Supplemental Conditions to the Standard General Conditions of the Construction Contract

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2013 Edition). All provisions that are not so amended or supplemented remain in full force and effect.

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

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

SC 1.01 Defined Terms

SC 1.01.A Add the following new paragraphs immediately after Paragraph 1.01.A.48:

49. "Construction Manager" shall mean the person designated by Owner, who shall be the Owner's agent for making decisions or giving approvals at the Project Site which may be necessary or prudent for the smooth flow of the Work. All notices required to be given by Contractor to Owner in this Contract shall be deemed properly delivered to Owner when delivered to Construction Manager and Contractor shall be entitled to rely on Construction Manager's instruction and approvals. Owner shall have the right to change the Construction Manager at any time.

50. "Developer" shall mean An individual or entity that desires to make certain improvements within the City of Fort Worth.

51. "City"— The City of Fort Worth, Texas, a Texas home-rule municipal corporation, acting by, its governing body through its City Manager, his designee, or agents authorized pursuant to its duly authorized charter on his behalf.

SC 1.02 Terminology

SC 1.02.C Delete Paragraph 1.02.C. in its entirety and insert the following in its place:

- C. Day:** The word "Day" means "Calendar Day." Calendar Day is defined as any day indicated on the calendar, for any given year, including Saturdays and Sundays. A "Calendar Day" is further defined as every day of the year, excluding the following recognized legal Holidays; New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and the Friday following, Christmas Eve and Christmas Day.

ARTICLE 2-PRELIMINARY MATTERS

SC 2.02 Copies of Documents

SC-2.02.A Amend the first sentence of Paragraph 2.02.A. to read as follows:

Owner shall furnish to Contractor two (2) copies of the Contract Documents (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF).

SC 2.03 Before Starting Construction

SC 2.03.A.1 Delete Paragraph 2.03.A.1. in its entirety and insert the following in its place:

- 1. A preliminary progress schedule shall detail all phases of construction, including project clean up, and allow the contractor to complete the work in the allotted time. Contract time will start even if the project schedule has not been turned in. Project schedule will be updated and resubmitted at the end of every estimating period. All costs involved with producing and maintaining the project schedule shall be considered subsidiary to this contract.**

ARTICLE 4-COMMENCEMENT AND PROGRESS OF THE WORK

SC 4.01 Commencement of Contract Times; Notice to Proceed

SC 4.01.A Delete Paragraph 4.01.A. in its entirety and insert the following in its place:

- A. Upon execution of contract documents by the owner, a written Notice to Proceed will be issued by Engineer. No work will be authorized to be done by the Contractor until the Notice to Proceed is received and any work done will be the sole responsibility of the Contractor.**

SC 4.02 Starting the Work

SC 4.02.A Delete Paragraph 4.02.A. in its entirety and insert the following in its place:

- A. The Contractor shall commence work within ten (10) calendar days after the date of written notice.**

SC 4.03 Reference Points

SC 4.03.A Delete Paragraph 4.03.A. in its entirety and insert the following in its place:

- A. A one-time survey staking shall be provided by the Engineer, which will include the following:**
- 1. Set initial construction control.**
 - 2. Stake and grade both sides of right-of-way of roadways at 100' stations or at lot corners for excavation/fill operations.**
 - 3. Stake and grade building pad areas (front & rear).**
 - 4. Perform verification of street, alley, and pad grades prior to utility work.**
 - 5. Stake with offsets storm drains, inlets and headwalls. Set hubs for construction of tops/inverts**
 - 6. Stake sanitary sewer alignment with flowline elevations at 50' intervals. Set hubs for construction of manhole tops.**
 - 7. Stake lot corners of street right-of-ways for sanitary sewer laterals and water services.**
 - 8. Stake lot corners right-of-way for water mains with fire hydrant locations and grades. Where water main is non-concentric to right-of-way, stake centerline of water mains at 50' intervals.**
 - 9. Perform verification of utility contractors re-grading of streets after utility installation.**
 - 10. Stake and grade with an offset back of curb/edge of pavement at 50' intervals.**
 - 11. Stake lot corners for franchise utility construction.**
 - 12. Stake and grade retaining walls.**
 - 13. Final set all lot corners after final construction as required by final plat.**

14. Verify completed final graded building pad elevations.

SC 4.03 Add the following paragraph after 4.03.A:

- B. The Contractor shall notify the Engineer seven (7) days prior to start-up so as to allow the Engineer to set his control and provide stakes for construction. The Contractor shall notify the Engineer, in writing, at least SEVENTY-TWO (72) hours in advance of the date when specific staking services are desired, giving the specific location and/or limiting stations. The Engineer shall be notified of any change of sequence of schedule which is established in the pre-construction meeting.**

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

SC 5.06 Hazardous Environmental Conditions

SC 5.06 Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.**
- B. Not Used.**

ARTICLE 6-BONDS AND INSURANCE

SC 6.01 Performance, Payment, and Other Bonds

SC 6.01.A Delete paragraph 6.01.A in its entirety and insert the following in its place:

- A. Contractor shall furnish performance and payment bonds in the name of Developer and City, in accordance with Texas Government Code Chapter 2253 or successor statute, each in an amount equal to the Contract Price for the bid proposal form as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents.**

SC 6.01.D Delete paragraph 6.01.D in its entirety and insert the following in its place:

- D. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Texas or it ceases to meet the requirements of Paragraph 6.01.C, Contractor shall promptly notify City and shall, within 30 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 6.01.C and SC 6.01.I.**

SC 6.01 Add the following paragraphs after 6.01.F:

- G. Contractor shall furnish maintenance bonds in the name of the City in an amount equal to the Contract Price, as security to protect the City against any defects in any portion of the Work described in the Contract Documents. Maintenance bonds shall remain in effect for two (2) years after the date of Final Acceptance by the City.**
- H. All bonds and insurance required by the Contract Documents to be purchased and maintained by Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the State of Texas to issue bonds or insurance policies for the limits and coverage so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided Section 4.04 of the Standard City Conditions of the Construction Contract for Developer Awarded Projects and Supplemental Conditions.**

*SC 6.02 Insurance-General Provisions***SC 6.02.A Add the following language at the end of Paragraph 6.02.A:**

and Article 4 in the Standard City Conditions of The Construction Contract For Developer Awarded Projects (Section 00 73 10).

SC 6.02.B Delete the following paragraph and insert the following in its place:

- B. All insurance required by the Contract Documents to be purchased and maintained by Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the State of Texas to issue bonds or insurance policies for the limits and coverage so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided Section 4.04 of the Standard City Conditions of the Construction Contract for Developer Awarded Projects (Section 00 73 10) and Supplemental Conditions.**

SC 6.02.D Delete the following paragraph and insert the following in its place:

D. Not Used

SC 6.02.F Delete the following paragraph and insert the following in its place:

F. Not Used

SC 6.03 Contractor's Insurance

SC 6.03.A Delete paragraph 6.03.A in its entirety and insert the following in its place:

A. *Workers Compensation and Employers' Liability.* Contractor shall purchase and maintain such insurance coverage with limits consistent with statutory benefits outlined in the Texas Workers' Compensation Act (Texas Labor Code, Ch. 406, as amended), and minimum limits for Employers' Liability as is appropriate for the Work being performed and as will provide protection from claims set forth below which 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:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees.
3. The limits of liability for the insurance shall provide the following coverages for not less than the following amounts or greater where required by Laws and Regulations
 - a. Statutory limits
 - b. Employer's liability
 - i. \$100,000 each accident/occurrence
 - ii. \$100,000 Disease - each employee
 - iii. \$500,000 Disease - policy limit

SC 6.03.B Delete paragraph 6.03.B in its entirety and insert the following in its place:

B. *Commercial General Liability.* Coverage shall include but not be limited to covering liability (bodily injury or property damage) arising from: premises/operations, independent contractors, products/completed operations, personal injury, and liability under an insured contract. Insurance shall be provided on an occurrence basis, and as comprehensive as the current Insurance Services Office (ISO) policy. This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to the City. The Commercial General Liability policy, shall have no exclusions by endorsements that would alter of nullify premises/operations, products/completed operations, contractual, personal injury, or advertising injury, which are normally contained with the policy, unless the City approves such exclusions in writing.

1. For construction projects that present a substantial completed operation exposure, the City may require the contractor to maintain completed

operations coverage for a minimum of no less than three (3) years following the completion of the project

- 2. Contractor's Liability Insurance under this Section which shall be on a per project basis covering the Contractor with minimum limits of:**
 - a. \$1,000,000 each occurrence**
 - b. \$2,000,000 aggregate limit**

3. The policy must have an endorsement (Amendment — Aggregate Limits of Insurance) making the General Aggregate Limits apply separately to each job site.

4. The Commercial General Liability Insurance policies shall provide "X", "C", and "U" coverage's. Verification of such coverage must be shown in the Remarks Article of the Certificate of Insurance.

SC 6.03.0 Delete paragraph 6.03.0 in its entirety and insert the following in its place:
C. Not Used

SC 6.03.D Delete paragraph 6.03.D in its entirety and insert the following in its place:
D. *Automobile Liability.* A commercial business auto policy shall provide coverage on "any auto", defined as autos owned, hired and non-owned and provide indemnity for claims for damages because bodily injury or death of any person and or property damage arising out of the work, maintenance or use of any motor vehicle by the 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.

- 1. Automobile Liability, Contractor's Liability Insurance under this Section, which shall be in an amount not less than the following amounts:**
 - a. Automobile Liability - a commercial business policy shall provide coverage on "Any Auto", defined as autos owned, hired and non-owned.**
 - i. \$1,000,000 each accident on a combined single limit basis. Split limits are acceptable if limits are at least:**
 - ii. \$250,000 Bodily Injury per person**
 - iii. \$500,000 Bodily Injury per accident**
 - iv. \$100,000 Property Damage**

SC 6.03.E Delete paragraph 6.03.E in its entirety and insert the following in its place:
E. Not Used

**SC 6.03.F Delete paragraph 6.03.F in its entirety and insert the following in its place:
F. Not Used**

**SC 6.03.G Add the following language at the end of Paragraph 6.03.G.
The entities listed in Table 1: Additional Insureds are "additional insureds as their interest may appear" including their respective officers, directors, agents and employees.**

Table 1: Additional Insureds

- 1. City**
- 2. FG Aledo Development, LLC**
- 3. Morningstar Ranch Municipal Utility District Nos. 1 and 2**

SC 6.03.1 Delete paragraph 6.03.1 in its entirety and insert the following in its place:

I. Contractor shall deliver to Developer and City, with copies to each additional insured and loss payee identified in these Standard City Conditions certificates of insurance (and other evidence of insurance requested by City or any other additional insured) which Contractor is required to purchase and maintain.

- 1. The certificate of insurance shall document the City, an as "Additional Insured" on all liability policies.**
- 2. The Contractor's general liability insurance shall include a, "per project" or "per location", endorsement, which shall be identified in the certificate of insurance provided to the City.**
- 3. 3. The certificate shall be signed by an agent authorized to bind coverage on behalf of the insured, be complete in its entirety, and show complete insurance carrier names as listed in the current A.M. Best Property & Casualty Guide**
- 4. The insurers for all policies must be licensed and/or approved to do business in the State of Texas. Except for workers' compensation, all insurers must have a minimum rating of A-: VII in the current A. M. Best Key Rating Guide or have reasonably equivalent financial strength and solvency to the satisfaction of Risk Management. If the rating is below that required, written approval of City is required.**

- 5. All applicable policies shall include a Waiver of Subrogation (Rights of Recovery) in favor of the City. In addition, the Contractor agrees to waive all rights of subrogation against the Engineer (if applicable), and each additional insured identified in these Standard City Conditions. Failure of the City to demand such certificates or other evidence of full compliance with the insurance requirements or failure of the City to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor's obligation to maintain such lines of insurance coverage.**
- 6. If insurance policies are not written for specified coverage limits, an Umbrella or Excess Liability insurance for any differences is required. Excess Liability shall follow form of the primary coverage.**
- 7. Unless otherwise stated, all required insurance shall be written on the "occurrence basis". If coverage is underwritten on a claims-made basis, the retroactive date shall be coincident with or prior to the date of the effective date of the agreement and the certificate of insurance shall state that the coverage is claims-made and the retroactive date. The insurance coverage shall be maintained for the duration of the Contract and for three (3) years following Final Acceptance provided under the Contract Documents or for the warranty period, whichever is longer. An annual certificate of insurance submitted to the City shall evidence such insurance coverage.**
- 8. Policies shall have no exclusions by endorsements, which, neither nullify or amend, the required lines of coverage, nor decrease the limits of said coverage unless such endorsements are approved in writing by the City. In the event a Contract has been bid or executed and the exclusions are determined to be unacceptable or the City desires additional insurance coverage, and the City desires the contractor/engineer to obtain such coverage, the contract price shall be adjusted by the cost of the premium for such additional coverage plus 10%.**
- 9. Any self-insured retention (SIR), in excess of \$25,000.00, affecting required insurance coverage shall be approved by the City in regards to asset value and stockholders' equity. In lieu of traditional insurance, alternative coverage maintained through insurance pools or risk retention groups, must also be approved by City.**
- 10. Any deductible in excess of \$5,000.00, for any policy that does not provide coverage on a first-dollar basis, must be acceptable to and approved by the City.**

11. City, at its sole discretion, reserves the right to review the insurance requirements and to make reasonable adjustments to insurance coverage's and their limits when deemed necessary and prudent by the City based upon changes in statutory law, court decision or the claims history of the industry as well as of the contracting party to the City. The City shall be required to provide prior notice of 90 days, and the insurance adjustments shall be incorporated into the Work by Change Order.
12. City shall be entitled, upon written request and without expense, to receive copies of policies and endorsements thereto and may make any reasonable requests for deletion or revision or modifications of particular policy terms, conditions, limitations, or exclusions necessary to conform the policy and endorsements to the requirements of the Contract. Deletions, revisions, or modifications shall not be required where policy provisions are established by law or regulations binding upon either party or the underwriter on any such policies.
13. City shall not be responsible for the direct payment of insurance premium costs for Contractor's insurance.

ARTICLE 7— CONTRACTOR'S RESPONSIBILITIES

SC 7.01 Supervision and Superintendence

SC 7.01.B Delete paragraph 7.01.B in its entirety and insert the following in its place:

- B. At all times during the progress of the Work, Contractor shall assign a competent, English speaking, Superintendent who shall not be replaced without written notice to City, Owner, and Engineer. The Superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communication given to or received from the Superintendent shall be binding on Contractor.

SC 7.01 Add the following paragraphs after 7.01.B:

- C. Contractor shall notify the City, Owner, and Engineer 24 hours prior to moving areas during the sequence of construction.
- D. The Contractor shall notify the Engineer seven (7) days prior to start-up so as to allow the Engineer to set his control and provide stakes for construction. The Contractor shall notify the Engineer, in writing, at least SEVENTY-TWO (72) hours in advance of the date when specific staking services are desired, giving the specific location and/or limiting stations. The Engineer shall be notified of any change of sequence of schedule which is established in the pre-construction meeting.

SC 7.02 Add the following new paragraphs after 7.02.B:

C. *Wage Rates:* The contractor is required to pay prevailing wage rates as defined in 5.08.A- H of the Standard City Conditions of the Construction Contract for Developer Awarded Contracts.

- 1. The Prevailing Wage Rates for Heavy and Highway Construction Projects as provided by the City in Table 2: Prevailing Wage Rates are as follows:**

Table 2: Prevailing Wage Rates

CLASSIFICATION DESCRIPTION	Wage Rate
Asphalt Distributor Operator	\$ 15.32
Asphalt Paving Machine Operator	\$ 13.99

Asphalt Raker	\$ 12.69
Broom or Sweeper Operator	\$ 11.74
Concrete Finisher, Paving and Structures	\$ 14.12
Concrete Pavement Finishing Machine Operator	\$ 16.05
Concrete Saw Operator	\$ 14.48
Crane Operator, Hydraulic 80 tons or less	\$ 18.12
Crane Operator, Lattice Boom 80 Tons or Less	\$ 17.27
Crane Operator, Lattice Boom Over 80 Tons	\$ 20.52
Crawler Tractor Operator	\$ 14.07
Electrician	\$ 19.80
Excavator Operator, 50,000 pounds or less	\$17.19
Excavator Operator, Over 50,000 pounds	\$16.99
Flagger	\$10.06
Form Builder/Setter, Structures	\$ 13.84
Form Setter, Paving & Curb	\$13.16
Foundation Drill Operator, Crawler Mounted	\$17.99
Foundation Drill Operator, Truck Mounted	\$21.07
Front End Loader Operator, 3 CY or Less	\$ 13.69
Front End Loader Operator, Over 3 CY	\$ 14.72
Laborer, Common	\$ 10.72
Laborer, Utility	\$ 12.32
Loader/Backhoe Operator	\$ 15.18
Mechanic	\$ 17.68
Milling Machine Operator	\$ 14.32
Motor Grader Operator, Fine Grade	\$ 17.19
Motor Grader Operator, Rough	\$ 16.02
Off Road Hauler	\$ 12.25
Pavement Marking Machine Operator	\$ 13.63
Pipelayer	\$ 13.24
Reclaimer/Pulverizer Operator	\$ 11.01
Reinforcing Steel Worker	\$ 16.18
Roller Operator, Asphalt	\$ 13.08
Roller Operator, Other	\$ 11.51
Scraper Operator	\$ 12.96
Servicer	\$ 14.58
Small Slipform Machine Operator	\$ 15.96
Spreader Box Operator	\$ 14.73
Truck Driver Lowboy-Float	\$ 16.24
Truck Driver Transit-Mix	\$ 14.14
Truck Driver, Single Axle	\$ 12.31
Truck Driver, Single or Tandem Axle Dump Truck	\$ 12.62
Truck Driver, Tandem Axle Tractor with Semi Trailer	\$ 12.86
Welder	\$ 14.84
Work Zone Barricade Servicer	\$ 11.68

The Davis-Bacon Act prevailing wage rates shown for Heavy and Highway construction projects were determined by the United States Department of Labor and current as of September 2013. The titles and descriptions for the classifications listed are detailed in the AGC of Texas' Standard Job Classifications and Descriptions for Highway, Heavy, Utilities, and Industrial Construction in Texas.

SC 7.06 Concerning Subcontractors, Suppliers, and Others

SC 7.06.A Add the following paragraph immediately following 7.06.A:

- A. Pre-Qualification of Bidders (Contractors and Subcontractors): All Work on Water, Sewer, Drainage, Paving, and Street Light Improvements shall be performed by pre-qualified contractors as determined by the City of Fort Worth.**

SC 7.06 Add the following paragraph immediately following 7.06.0:

- P. All work performed by a Subcontractor must comply with prevailing wage rates as defined in Table 2: Prevailing Wage Rates on Page 14.**

SC 7.09 Taxes

SC 7.09.A Delete Paragraph 7.09.A in its entirety and insert the following in its place:

- A. On a contract awarded by the Municipal Utility District, an organization which qualifies for exemption pursuant to Texas Tax Code, Subchapter H, Sections 151.301-335 (as amended), the Contractor may purchase, rent or lease all materials, supplies and equipment used or consumed in the performance of this contract by issuing to his supplier an exemption certificate in lieu of the tax, said exemption certificate to comply with State Comptroller's Ruling .007. Any such exemption certificate issued to the Contractor in lieu of the tax shall be subject to and shall comply with the provision of State Comptroller's Ruling .011, and any other applicable rulings pertaining to the Texas Tax Code, Subchapter H.**

SC 7.09 Add the following new paragraph immediately after Paragraph 7.09.A:

- B. Texas Tax permits and information may be obtained from:**
- 1. Comptroller of Public Accounts
Sales Tax Division**

**Capitol Station
Austin, TX 78711; or**

2. <http://www.window.state.tx.us/taxinfo/taxforms/93-forms.html>

SC 7.12 Safety and Protection

SC 7.12.A Add the following new paragraphs immediately after Paragraph 7.12.A.3.

4. **All property along and adjacent to the Contractor's operations including lawns, yards, shrubs, trees, etc. shall be preserved or restored after completion of the work to a condition equal or better than existed prior to start of work.**
5. **By ordinance, the contractor must obtain a permit from the City Forester before any work (trimming, removal or root pruning) can be done on trees or shrubs growing on public property including street rights-of-way and designated alleys. This permit can be obtained by calling the Forestry Office at (817) 871-5738. All tree work shall be in compliance with pruning standards for Class II Pruning as described by the National Arborist Association. A copy of these standards can be provided by calling the above number. Any damage to public trees due to negligence by the Contractor shall be assessed using the current formula for Shade Tree Evaluation as defined by the International Society of Arboriculture. Payment for negligent damage to public trees shall be made to the City of Fort Worth and may be withheld from funds due to the Contractor by the City.**
6. **To prevent the spread of the Oak Wilt fungus, all wounds on Live Oak and Red Oak trees shall be immediately sealed using a commercial pruning paint. This is the only instance when pruning paint is recommended.**
7. **Fences: The Contractor will be required to replace or repair all fences (hog wire, barbed wire, cyclone, wood, etc.) damaged or moved in connection with operations under this contract, using new material where necessary. The Contractor will be allowed to replace the original fence or relocate the fence, whichever is required, using the materials from the original fence, providing this material is usable in the opinion of the Engineer. When new material is necessary, such material will be a replacement of the original fence as regards to type of fencing, posts, and construction. The cost of**

this fence replacement will be considered incidental and included in the unit bid price for the respective item affected.

SC-7.12.E. Amend the 1st sentence of paragraph 7.12.E. by adding the following paragraph references after 7.12.A.3:

"7.12.A.5" and "7.12.A.7"

SC 7.16 Shop Drawing, Samples, and Other Submittals

SC 7.16.A Amend paragraph 7.16.A by inserting the following sentence before the first sentence of paragraph A:

All Work on Water, Sewer, Drainage, Paving, and Street Light Improvements shall comply with 5.16 of the Standard City Conditions of the Construction Contract for Developer Awarded Projects (Section 00 73 10).

SC 7.17 Contractor's General Warranty and Guarantee

SC 7.17.A Amend paragraph 7.17.A by inserting the following sentence before the first sentence of paragraph A:

All Work on Water, Sewer, Drainage, Paving, and Street Light Improvements shall comply with 5.17 of the Standard City Conditions of the Construction Contract for Developer Awarded Projects (Section 00 73 10).

SC 7.18 Indemnification

SC 7.18.A Delete Paragraph 7.18.A in its entirety and insert the following in its place:

P. TO THE MAXIMUM EXTENT ALLOWED BY LAW, THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE CITY, OWNER, DEVELOPER ITS BOARD, DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS, ENGINEER AND ITS CONSULTANTS, DIRECTORS, OFFICERS, AGENTS AND EMPLOYEES AND DEVELOPER AND ITS DIRECTORS, OFFICERS, AGENTS AND EMPLOYEES (COLLECTIVELY, THE "INDEMNITEES"), FROM AND AGAINST ANY AND ALL CLAIMS, DEMANDS, SUITS, CAUSES OF ACTION, LIENS OR CLAIMS OF LIEN, SETTLEMENTS, LIABILITIES, COSTS, EXPENSES, FINES, AND JUDGMENTS (INCLUDING, WITHOUT LIMITATION, REASONABLE AND NECESSARY COURT COSTS, EXPERTS' FEES AND ATTORNEY'S FEES) (COLLECTIVELY, "LOSSES"), WHETHER ARISING IN EQUITY, AT COMMON LAW, OR BY STATUTE, INCLUDING WITHOUT LIMITATION THE TEXAS DECEPTIVE TRADE

PRACTICES ACT (AS AMENDED) OR SIMILAR STATUTE OF OTHER JURISDICTIONS, OR UNDER THE LAW OF CONTRACTS, TORTS (INCLUDING, WITHOUT LIMITATION, NEGLIGENCE AND STRICT LIABILITY WITHOUT REGARD TO FAULT) OR PROPERTY, OF EVERY KIND OR CHARACTER INCLUDING, WITHOUT LIMITATION, CLAIMS FOR PROPERTY DAMAGE, PERSONAL INJURY, EMOTIONAL DISTRESS AND ECONOMIC LOSS, ARISING IN FAVOR OF OR BROUGHT BY ANY OF THE CONTRACTOR'S EMPLOYEES, AGENTS, SUBCONTRACTORS, SUPPLIERS OR REPRESENTATIVES, OR BY ANY GOVERNMENTAL AGENCY OR ANY PERSON OR PARTY, BASED UPON, IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE WORK, THE CONTRACTOR'S FAILURE TO COMPLY WITH THE CONTRACT DOCUMENTS, OR THE CONTRACTOR'S ACTIONS OR INACTIONS UNDER THE CONTRACT DOCUMENTS, INCLUDING WITHOUT LIMITATION ANY FAILURE TO PAY TAXES OR FAILURE TO COMPLY WITH ANY APPLICABLE LAW, AND EVEN IF ANY SUCH LOSSES ARE DUE IN PART TO ANY INDEMNITEES' CONCURRENT, JOINT OR CONTRIBUTORY NEGLIGENCE OR OTHER FAULT, BREACH OF CONTRACT OR WARRANTY, VIOLATION OF STATUTE, OR STRICT LIABILITY WITHOUT REGARD TO FAULT.

- 1. IT IS THE EXPRESS INTENTION OF THE CONTRACTOR TO INDEMNIFY THE INDEMNITEES FROM THE CONSEQUENCES OF THEIR RESPECTIVE JOINT, PARTIAL OR CONTRIBUTORY NEGLIGENCE. THE INDEMNIFICATION OBLIGATION UNDER THIS PARAGRAPH SHALL SURVIVE COMPLETION OF THE PROJECT, TERMINATION OF THE CONTRACT, FINAL PAYMENT AND/OR ABANDONMENT OF THE PROJECT. THIS INDEMNITY IS CUMMULATIVE OF OTHER INDEMNITEES IN THE CONTRACT DOCUMENTS INCLUDING BUT NOT LIMITED TO 7.18.**

SC 7.18.B Amend the first sentence of paragraph 7.18.B to read as the follows:

In any and all claims against DEVELOPER, 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.

SC 7.18

Add the following new paragraphs immediately after Paragraph 7.18.C:

D. Contractor covenants and agrees to indemnify Developer's engineer and its personnel at the project site for contractor's sole negligence. In addition, Contractor covenants and agrees to indemnify, hold harmless and defend, at its own expense, the Developer and the City, their officers, "additional indemnified parties", servants and employees, from and against any and all claims or suits for property loss including third party's loss of use, property damage, personal injury including emotional distress, including death, arising out of, or alleged to arise out of, the work and services to be performed hereunder by Contractor, its officers, agents, employees, subcontractors, licensees or invitees, whether or not any such injury, damage or death is caused, in whole or in part, by the negligence or alleged negligence of the Developer or the City, their officers,, "additional indemnified parties", servants or employees. Contractor likewise covenants and agrees to indemnify and hold harmless the Developer, "additional indemnified parties", and the City from and against any and all injuries to Developer or City's officers, "additional indemnified parties", servants and employees and any damage, loss or destruction to property of the Developer, "additional indemnified parties", or the City arising from the performance of any of the terms and conditions of this Contract, whether or not any such injury or damage is caused in whole or in part by the negligence or alleged negligence of the Developer or the City, their officers, "additional indemnified parties", servants or employees.

E. The "additional indemnified parties" are listed below in Table 3: Additional Indemnified Parties.

Table 3: Additional Indemnified Parties

- 1. City**
- 2. Consultant: Welch Engineering, Inc.**

3. **FG Aledo Development, LLC**
4. **Morningstar Ranch Municipal Utility District Nos. 1 and 2**

F. IT IS THE EXPRESS INTENTION OF THE CONTRACTOR TO INDEMNIFY THE INDEMNITEES FROM THE CONSEQUENCES OF THEIR RESPECTIVE JOINT, PARTIAL OR CONTRIBUTORY NEGLIGENCE. THE INDEMNIFICATION OBLIGATION UNDER THIS PARAGRAPH SHALL SURVIVE COMPLETION OF THE PROJECT, TERMINATION OF THE CONTRACT, FINAL PAYMENT AND/OR ABANDONMENT OF THE PROJECT. THIS INDEMNITY IS CUMULATIVE OF OTHER INDEMNITEES IN THE CONTRACT DOCUMENTS INCLUDING BUT NOT LIMITED TO 7.18.

G. The obligation of the CONTRACTOR under Paragraph 6.20 shall not extend to the liability of the ENGINEER, his agents or employees arising out of the preparation or approval of maps, drawings, reports, surveys, change orders, designs or specifications, or the giving of or the failure to give directions or instructions by the ENGINEER, his agents or employees, provided such giving or failure to give is the primary cause of the injury or damage. It is understood and agreed that Section 7.18 is subject to, and expressly limited by, the terms and conditions OF TEXAS CIV. PRAC. & REM. CODE ANN. § 130.001 - .005 as amended.

ARTICLE 13-COST OF WORK; ALLOWANCES; UNIT PRICE WORK

SC 13.01 *Cost of Work*

SC 13.01.B.5 Add the following new paragraphs immediately after Paragraph 13.01.B.5.i:

- j. **Excavation of Material/Trench Spoils:** Any and all rock material encountered during trenching and excavation shall be incidental to construction and not to be considered as a pay item. Excess spoil material including those generated from all retaining walls built on site, shall be wasted on property in areas determined by the construction manager. Contractor will not disburse any spoils until **Construction Manager** issues written instructions as to where spoils shall be placed. Spoils shall contain no rocks larger than 4" in diameter unless approved by the Construction Manager. Each Contractor is responsible for their spoils. Any and all rock spoils generated from utility (water, sanitary, and/or storm) excavation shall be considered incidental to construction and not to be considered as a pay item.
- k. **Adjustment of Utilities:** It shall be the responsibility of the Contractor to perform any necessary final grade adjustments to all appurtenances (valve stacks, manhole rims, fire hydrants, etc.) and for pouring any block outs required by the governing public authority. The Utility Contractor shall be responsible for providing false manhole bottoms and inlet protection during paving operations. The cost to perform this work shall be incidental to the pay items.
- l. **Water for Construction:** All water required shall be furnished by the Contractor at his expense and shall be from a clean, potable water source.
- m. **Dewatering:** Dewatering, if required, is not included as a separate pay item and shall be included subsidiary to the bid items. Contractor shall make determination of extent of dewatering necessary to complete the project in accordance with the plans and specifications.
- n. **Obstructions:** Relocation of utility poles, underground utilities, and similar items will be performed by developer, except where otherwise indicated on the drawings. The Contractor shall coordinate and plan his work around such relocation or removal.
- o. **STORMWATER POLLUTION PREVENTION PLAN:** The Contractor will be responsible for any and all monetary fines or damages assessed by any

governing agency resulting from the negligence to comply with the requirements of the project Storm Water Pollution Prevention Plan. The Owner will not be responsible for any such monetary fines or damages for non-compliance of the project Storm Water Pollution Prevention Plan by the Contractor.

- p. ***SITE DRAINAGE:*** The Contractor, prior to submitting a contractual bid, shall observe and inspect the project site conditions, including surface and subsurface conditions and observing the current drainage pattern of the entire property, as well as that of adjacent properties. The subject site should be examined extensively for the presence of standing water, saturated or boggy ground, a high water table, and dry or wet creeks or other seasonal drainage ways, swales and channels all of which may affect surface drainage. The Contractor, at his expense, shall monitor and examine site drainage and take appropriate measures to carry storm water runoff, without erosion of on-site soils, so as to not subject the construction site to flooding at any time. The Contractor shall be responsible for maintaining and managing the construction site drainage at all times during construction at no additional expense to the Owner.
- q. **TREE DISPOSAL:** Contractor is responsible for the disposal of all removed trees at Contractor's sole expense. Contractor may be allowed to use the following methods of disposal:
- i. **Burn on-site, if allowed by governing municipality, in area designated by the Owner's Representative, in accordance with municipality's regulations. All permitting will be at the expense of the Contractor. Onsite burning may only occur on Property that falls within Morningstar Ranch Municipal Utility District Nos. 1 or 2.**
 - ii. **Chip removed trees and spread in area designated by the Owner's Representative, at Contractor's expense.**
 - iii. **Haul offsite at Contractor's Expense**

**STANDARD CITY CONDITIONS
OF THE CONSTRUCTION CONTRACT
FOR DEVELOPER AWARDED PROJECTS**

**STANDARD CITY CONDITIONS OF THE
CONSTRUCTION CONTRACT
FOR DEVELOPER AWARDED PROJECTS**

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in these General Conditions or in other Contract Documents, the terms listed below have the meanings indicated which are applicable to both the singular and plural thereof, and words denoting gender shall include the masculine, feminine and neuter. Said terms are generally capitalized or written in italics, but not always. When used in a context consistent with the definition of a listed-defined term, the term shall have a meaning as defined below whether capitalized or italicized or otherwise. 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. *Agreement* - The written instrument which is evidence of the agreement between Developer and Contractor covering the Work
2. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
3. *Business Day* – A business day is defined as a day that the City conducts normal business, generally Monday through Friday, except for federal or state holidays observed by the City.
4. *Buzzsaw* – City’s on-line, electronic document management and collaboration system.
5. *Calendar Day* – A day consisting of 24 hours measured from midnight to the next midnight.
6. *City*— *The City of Fort Worth, Texas, a Texas home-rule municipal corporation, acting by, its governing body through its City Manager, his designee, or agents authorized pursuant to its duly authorized charter on his behalf.*
7. *Community Facilities Agreement (CFA)* —*A Contract between the Developer and the City for the Construction of one or more following public facilities within the City public right-of-way or easement: Water, Sanitary Sewer, Street, Storm Drain, Street Light, and Street Signs. A CFA may include private facilities within the right-of-way dedicated as private right-of-way or easement on a recorded plat.*
8. *Contract*—*The entire and integrated written document incorporating the Contract Documents between the Developer, Contractor, and/or City concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.*
9. *Contract Documents*—*Those items that make up the contract and which must include the Agreement, and it’s attachments such as standard construction specifications, standard City Conditions, other general conditions of the Developer, including:*
 - a. An Agreement

- b. Attachments to the Agreement
 - i. Bid Form
 - ii. Vendor Compliance with State Law Non-Resident Bidder
 - iii. Prequalification Statement
 - c. Current Prevailing Wage Rates Table (if required by City)
 - d. Insurance Accord Form
 - e. Payment Bond
 - f. Performance Bond
 - g. Maintenance Bond
 - h. Power of Attorney for Bonds
 - i. Workers Compensation Affidavit
 - j. MWBE Commitment Form(If required by City)
 - k. General Conditions
 - l. Supplementary Conditions
 - m. The Standard City Conditions
 - n. Specifications specifically made part of the Contract Documents by attachment, if not attached, as incorporated by reference and described in the Table of Contents of the Project's Contract Documents
 - o. Drawings
 - p. Documentation submitted by contractor prior to Notice of Award.
 - q. The following which may be delivered or issued after the effective date if the Agreement and, if issued become an incorporated part of the Contract Documents
 - i. Notice to Proceed
 - ii. Field Orders
 - iii. Change Orders
 - iv. Letters of Final Acceptance
 - r. Approved Submittals, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
10. *Contractor—The individual or entity with whom Developer has entered into the Agreement.*
11. *Day or day – A day, unless otherwise defined, shall mean a Calendar Day.*
12. *Developer – An individual or entity that desires to make certain improvements within the City of Fort Worth*
13. *Drawings—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Submittals are not Drawings as so defined.*
14. *Engineer—The licensed professional engineer or engineering firm registered in the State of Texas performing professional services for the Developer.*
15. *Final Acceptance – The written notice given by the City to the Developer and/or Contractor that the Work specified in the Contract Documents has been completed to the satisfaction of the City.*

16. *Final Inspection* – Inspection carried out by the City to verify that the Contractor has completed the Work, and each and every part or appurtenance thereof, fully, entirely, and in conformance with the Contract Documents.
17. *General Requirements*—A part of the Contract Documents between the Developer and a Contractor.
18. *Laws and Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
19. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
20. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate Contract Time prior to Final Acceptance of the Work.
21. *Non-Participating Change Order*—A document, which is prepared for and reviewed by the City, which is signed by Contractor, and Developer, and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.
22. *Participating Change Order*—A document, which is prepared for and approved by the City, which is signed by Contractor, Developer, and City and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.
23. *Plans* – See definition of Drawings.
24. *Project Schedule*—A schedule, prepared and maintained by Contractor, in accordance with the General Requirements, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Time.
25. *Project*—The Work to be performed under the Contract Documents.
26. *Project Representative*—The authorized representative of the City who will be assigned to the Site.
27. *Public Meeting* – An announced meeting conducted by the Developer to facilitate public participation and to assist the public in gaining an informed view of the Project.
28. *Regular Working Hours* – Hours beginning at 7:00 a.m. and ending at 6:00 p.m., Monday thru Friday (excluding legal holidays).
29. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

30. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
31. *Site*—Lands or areas indicated in the Contract Documents as being furnished by City or Developer upon which the Work is to be performed, including rights-of-way, permits, and easements for access thereto, and such other lands furnished by City or Developer which are designated for the use of Contractor.
32. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto. Specifications may be specifically made a part of the Contract Documents by attachment or, if not attached, may be incorporated by reference as indicated in the Table of Contents (Division 00 00 00) of each Project.
33. *Standard City Conditions* – That part of the Contract Documents setting forth requirements of the City.
34. *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 at the Site.
35. *Submittals*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
36. *Superintendent* – The representative of the Contractor who is available at all times and able to receive instructions from the City and/or Developer and to act for the Contractor.
37. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements the General Conditions.
38. *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 Subcontractor.
39. *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, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
40. *Weekend Working Hours* – Hours beginning at 9:00 a.m. and ending at 5:00 p.m., Saturday, Sunday or legal holiday, as approved in advance by the City.

41. *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 including any Participating Change Order, Non-Participating Change Order, or Field Order, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
42. *Working Day* – A working day is defined as a day, not including Saturdays, Sundays, or legal holidays authorized by the City for contract purposes, in which weather or other conditions not under the control of the Contractor will permit the performance of the principal unit of work underway for a continuous period of not less than 7 hours between 7 a.m. and 6 p.m.

1.02 Terminology

- A. The words and terms discussed in Paragraph 1.02.B through D are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *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 City’s written acceptance.
- C. *Furnish, Install, Perform, Provide*:
1. The word “Furnish” or the word “Install” or the word “Perform” or the word “Provide” or the word “Supply,” or any combination or similar directive or usage thereof, shall mean furnishing and incorporating in the Work including all necessary labor, materials, equipment, and everything necessary to perform the Work indicated, unless specifically limited in the context used.
- D. 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 *Before Starting Construction*

Baseline Schedules: Submit to City in accordance with the Contract Documents, and prior to starting the Work. New schedules will be submitted to City when Participating Change Orders or Non-Participating Change Orders occur.

2.02 *Preconstruction Conference*

Before any Work at the Site is started, the Contractor shall attend a Preconstruction Conference as specified in the Contract Documents.

2.03 *Public Meeting*

Contractor may not mobilize any equipment, materials or resources to the Site prior to Contractor attending the Public Meeting as scheduled by the City.

ARTICLE 3 – CONTRACT DOCUMENTS AND AMENDING

3.01 *Reference Standards*

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

1. Reference to standards, specifications, manuals, 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, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
2. No provision or instruction shall be effective to assign to City, or any of its 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 Contract Documents.

3.02 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by a Participating Change Order or a Non-Participating Change Order.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work not involving a change in Contract Price or Contract Time, may be authorized, by one or more of the following ways:

1. A Field Order;

1. City's or Engineer's review of a Submittal (subject to the provisions of Paragraph 5.16.C); or
2. City's written interpretation or clarification.

ARTICLE 4 – BONDS AND INSURANCE

4.01 Licensed Sureties and Insurers

All bonds and insurance required by the Contract Documents to be purchased and maintained by Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the State of Texas to issue bonds or insurance policies for the limits and coverage so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided Section 4.04.

4.02 Performance, Payment, and Maintenance Bonds

- A. Contractor shall furnish performance and payment bonds in the name of Developer and City, in accordance with Texas Government Code Chapter 2253 or successor statute, each in an amount equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents.
- B. Contractor shall furnish maintenance bonds in the name of Developer and City in an amount equal to the Contract Price as security to protect the City against any defects in any portion of the Work described in the Contract Documents. Maintenance bonds shall remain in effect for two (2) years after the date of Final Acceptance by the City.
- C. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a sealed and dated power of attorney which shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- D. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Texas or it ceases to meet the requirements of Paragraph 4.02.C, Contractor shall promptly notify City and shall, within 30 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 4.01 and 4.02.C.

4.03 Certificates of Insurance

Contractor shall deliver to Developer and City, with copies to each additional insured and loss payee identified in these Standard City Conditions certificates of insurance (and other evidence of insurance requested by City or any other additional insured) which Contractor is required to purchase and maintain.

1. The certificate of insurance shall document the City, as an “Additional Insured” on all liability policies.
2. The Contractor’s general liability insurance shall include a, “per project” or “per location”, endorsement, which shall be identified in the certificate of insurance provided to the City.
3. The certificate shall be signed by an agent authorized to bind coverage on behalf of the insured, be complete in its entirety, and show complete insurance carrier names as listed in the current A.M. Best Property & Casualty Guide
4. The insurers for all policies must be licensed and/or approved to do business in the State of Texas. Except for workers’ compensation, all insurers must have a minimum rating of A-: VII in the current A. M. Best Key Rating Guide or have reasonably equivalent financial strength and solvency to the satisfaction of Risk Management. If the rating is below that required, written approval of City is required.
5. All applicable policies shall include a Waiver of Subrogation (Rights of Recovery) in favor of the City. In addition, the Contractor agrees to waive all rights of subrogation against the Engineer (if applicable), and each additional insured identified in these Standard City Conditions. Failure of the City to demand such certificates or other evidence of full compliance with the insurance requirements or failure of the City to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor’s obligation to maintain such lines of insurance coverage.
6. If insurance policies are not written for specified coverage limits, an Umbrella or Excess Liability insurance for any differences is required. Excess Liability shall follow form of the primary coverage.
7. Unless otherwise stated, all required insurance shall be written on the “occurrence basis”. If coverage is underwritten on a claims-made basis, the retroactive date shall be coincident with or prior to the date of the effective date of the agreement and the certificate of insurance shall state that the coverage is claims-made and the retroactive date. The insurance coverage shall be maintained for the duration of the Contract and for three (3) years following Final Acceptance provided under the Contract Documents or for the warranty period, whichever is longer. An annual certificate of insurance submitted to the City shall evidence such insurance coverage.
8. Policies shall have no exclusions by endorsements, which, neither nullify or amend, the required lines of coverage, nor decrease the limits of said coverage unless such endorsements are approved in writing by the City. In the event a Contract has been bid or executed and the exclusions are determined to be unacceptable or the City desires additional insurance coverage, and the City desires the contractor/engineer to obtain such coverage, the contract price shall be adjusted by the cost of the premium for such additional coverage plus 10%.
9. Any self-insured retention (SIR), in excess of \$25,000.00, affecting required insurance coverage shall be approved by the City in regards to asset value and stockholders' equity. In

lieu of traditional insurance, alternative coverage maintained through insurance pools or risk retention groups, must also be approved by City.

10. Any deductible in excess of \$5,000.00, for any policy that does not provide coverage on a first-dollar basis, must be acceptable to and approved by the City.
11. City, at its sole discretion, reserves the right to review the insurance requirements and to make reasonable adjustments to insurance coverage's and their limits when deemed necessary and prudent by the City based upon changes in statutory law, court decision or the claims history of the industry as well as of the contracting party to the City. The City shall be required to provide prior notice of 90 days, and the insurance adjustments shall be incorporated into the Work by Change Order.
12. City shall be entitled, upon written request and without expense, to receive copies of policies and endorsements thereto and may make any reasonable requests for deletion or revision or modifications of particular policy terms, conditions, limitations, or exclusions necessary to conform the policy and endorsements to the requirements of the Contract. Deletions, revisions, or modifications shall not be required where policy provisions are established by law or regulations binding upon either party or the underwriter on any such policies.
13. City shall not be responsible for the direct payment of insurance premium costs for Contractor's insurance.

4.04 *Contractor's Insurance*

A. *Workers Compensation and Employers' Liability.* Contractor shall purchase and maintain such insurance coverage with limits consistent with statutory benefits outlined in the Texas Workers' Compensation Act (Texas Labor Code, Ch. 406, as amended), and minimum limits for Employers' Liability as is appropriate for the Work being performed and as will provide protection from claims set forth below which 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:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees.
3. The limits of liability for the insurance shall provide the following coverages for not less than the following amounts or greater where required by Laws and Regulations
 - a. Statutory limits
 - b. Employer's liability

- 1) \$100,000 each accident/occurrence
- 2) \$100,000 Disease - each employee
- 3) \$500,000 Disease - policy limit

B. **Commercial General Liability.** Coverage shall include but not be limited to covering liability (bodily injury or property damage) arising from: premises/operations, independent contractors, products/completed operations, personal injury, and liability under an insured contract. Insurance shall be provided on an occurrence basis, and as comprehensive as the current Insurance Services Office (ISO) policy. This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to the City. The Commercial General Liability policy, shall have no exclusions by endorsements that would alter or nullify premises/operations, products/completed operations, contractual, personal injury, or advertising injury, which are normally contained with the policy, unless the City approves such exclusions in writing.

1. For construction projects that present a substantial completed operation exposure, the City may require the contractor to maintain completed operations coverage for a minimum of no less than three (3) years following the completion of the project
2. Contractor's Liability Insurance under this Section which shall be on a per project basis covering the Contractor with minimum limits of:
 - a. \$1,000,000 each occurrence
 - b. \$2,000,000 aggregate limit
3. The policy must have an endorsement (Amendment – Aggregate Limits of Insurance) making the General Aggregate Limits apply separately to each job site.
4. The Commercial General Liability Insurance policies shall provide “X”, “C”, and “U” coverage’s. Verification of such coverage must be shown in the Remarks Article of the Certificate of Insurance.

C. **Automobile Liability.** A commercial business auto policy shall provide coverage on “any auto”, defined as autos owned, hired and non-owned and provide indemnity for claims for damages because bodily injury or death of any person and or property damage arising out of the work, maintenance or use of any motor vehicle by the 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.

1. Automobile Liability, Contractor’s Liability Insurance under this Section, which shall be in an amount not less than the following amounts:
 - a. **Automobile Liability** - a commercial business policy shall provide coverage on "Any Auto", defined as autos owned, hired and non-owned.

- 1) \$1,000,000 each accident on a combined single limit basis. Split limits are acceptable if limits are at least:
- 2) \$250,000 Bodily Injury per person
- 3) \$500,000 Bodily Injury per accident /
- 4) \$100,000 Property Damage

D. *Railroad Protective Liability.* If any of the work or any warranty work is within the limits of railroad right-of-way, the Contractor shall comply with the following requirements:

1. The Contractor's construction activities will require its employees, agents, subcontractors, equipment, and material deliveries to cross railroad properties and tracks owned and operated by: **N/A**
Write the name of the railroad company. (If none, then write none)
2. The Contractor shall conduct its operations on railroad properties in such a manner as not to interfere with, hinder, or obstruct the railroad company in any manner whatsoever in the use or operation of its/their trains or other property. Such operations on railroad properties may require that Contractor to execute a "Right of Entry Agreement" with the particular railroad company or companies involved, and to this end the Contractor should satisfy itself as to the requirements of each railroad company and be prepared to execute the right-of-entry (if any) required by a railroad company. The requirements specified herein likewise relate to the Contractor's use of private and/or construction access roads crossing said railroad company's properties.
3. The Contractual Liability coverage required by Paragraph 5.04D of the General Conditions shall provide coverage for not less than the following amounts, issued by companies satisfactory to the City and to the Railroad Company for a term that continues for so long as the Contractor's operations and work cross, occupy, or touch railroad property:
 - a. General Aggregate: **N/A**
Enter limits provided by Railroad Company (If none, write none)
 - b. Each Occurrence: : **N/A**
Enter limits provided by Railroad Company (If none, write none)
4. With respect to the above outlined insurance requirements, the following shall govern:
 - a. Where a single railroad company is involved, the Contractor shall provide one insurance policy in the name of the railroad company. However, if more than one grade separation or at-grade crossing is affected by the Project at entirely separate locations on the line or lines of the same railroad company, separate coverage may be required, each in the amount stated above.
 - b. Where more than one railroad company is operating on the same right-of-way or where several railroad companies are involved and operated on their own separate rights-of-

way, the Contractor may be required to provide separate insurance policies in the name of each railroad company.

- c. If, in addition to a grade separation or an at-grade crossing, other work or activity is proposed on a railroad company's right-of-way at a location entirely separate from the grade separation or at-grade crossing, insurance coverage for this work must be included in the policy covering the grade separation.
 - d. If no grade separation is involved but other work is proposed on a railroad company's right-of-way, all such other work may be covered in a single policy for that railroad, even though the work may be at two or more separate locations.
5. No work or activities on a railroad company's property to be performed by the Contractor shall be commenced until the Contractor has furnished the City with an original policy or policies of the insurance for each railroad company named, as required above. All such insurance must be approved by the City and each affected Railroad Company prior to the Contractor's beginning work.
 6. The insurance specified above must be carried until all Work to be performed on the railroad right-of-way has been completed and the grade crossing, if any, is no longer used by the Contractor. In addition, insurance must be carried during all maintenance and/or repair work performed in the railroad right-of-way. Such insurance must name the railroad company as the insured, together with any tenant or lessee of the railroad company operating over tracks involved in the Project.
- E. *Notification of Policy Cancellation:* Contractor shall immediately notify City upon cancellation or other loss of insurance coverage. Contractor shall stop work until replacement insurance has been procured. There shall be no time credit for days not worked pursuant to this section.

4.05 *Acceptance of Bonds and Insurance; Option to Replace*

If City has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the Contractor in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the Developer and City shall so notify the Contractor in writing within 10 Business Days after receipt of the certificates (or other evidence requested). Contractor shall provide to the City such additional information in respect of insurance provided as the Developer or City may reasonably request. If Contractor does not purchase or maintain all of the bonds and insurance required by the Contract Documents, the Developer or City shall notify the Contractor in writing of such failure prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

ARTICLE 5 – CONTRACTOR'S RESPONSIBILITIES

5.01 *Supervision and Superintendent*

- 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, English-speaking, Superintendent who shall not be replaced without written notice to City. The Superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communication given to or received from the Superintendent shall be binding on Contractor.
- C. Contractor shall notify the City 24 hours prior to moving areas during the sequence of construction.

5.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to 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. Contractor will not permit the performance of Work beyond Regular Working Hours or for Weekend Working Hours without City's written consent (which will not be unreasonably withheld). Written request (by letter or electronic communication) to perform Work:
 - 1. for beyond Regular Working Hours request must be made by noon at least two (2) Business Days prior
 - 2. for Weekend Working Hours request must be made by noon of the preceding Thursday
 - 3. for legal holidays request must be made by noon two Business Days prior to the legal holiday.

5.03 *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, Contractor required testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, 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 City. If required by City, 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 to be incorporated into the Work 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.

5.04 *Project Schedule*

- A. Contractor shall adhere to the Project Schedule established in accordance with Paragraph 2.01 and the General Requirements as it may be adjusted from time to time as provided below.
1. Contractor shall submit to City for acceptance (to the extent indicated in Paragraph 2.01 and the General Requirements) proposed adjustments in the Project Schedule.
 2. Proposed adjustments in the Project Schedule that will change the Contract Time shall be submitted in accordance with the requirements of Article 9. Adjustments in Contract Time for projects with City participation shall be made by participating change orders.

5.05 *Substitutes and "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 specification or description 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 or no substitution is permitted, other items of material or equipment of other Suppliers may be submitted to City for review under the circumstances described below.
1. *"Or-Equal" Items:* If in City's sole discretion 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, it may be considered by City as an "or-equal" item, in which case review and approval of the proposed item may, in City's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 5.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. City 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; and
 - 3) it has a proven record of performance and availability of responsive service; and
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the City or increase in Contract Time; and

- 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in City's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 5.05.A.1, it may be submitted as a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow City to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by City from anyone other than Contractor.
- c. Contractor shall make written application to City for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application shall comply with Section 01 25 00 and:
 - 1) shall certify that the proposed substitute item will:
 - i. perform adequately the functions and achieve the results called for by the general design;
 - ii. be similar in substance to that specified;
 - iii. be suited to the same use as that specified; and
 - 2) will state:
 - i. the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of final completion on time;
 - ii. 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 City for other work on the Project) to adapt the design to the proposed substitute item;
 - iii. whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty; and
 - 3) will identify:
 - i. all variations of the proposed substitute item from that specified;
 - ii. available engineering, sales, maintenance, repair, and replacement services; and

- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and Damage Claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by City. Contractor shall submit sufficient information to allow City, in City's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. Contractor shall make written application to City for review in the same manner as those provided in Paragraph 5.05.A.2.
- C. *City's Evaluation:* City will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 5.05.A and 5.05.B. City may require Contractor to furnish additional data about the proposed substitute. City will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until City's review is complete, which will be evidenced by a Change Order in the case of a substitute and an accepted Submittal for an "or-equal." City will advise Contractor in writing of its determination.
- D. *Special Guarantee:* City may require Contractor to furnish at Contractor's expense a special performance guarantee, warranty, or other surety with respect to any substitute. *Contractor shall indemnify and hold harmless City and anyone directly or indirectly employed by them from and against any and all claims, damages, losses and expenses (including attorneys fees) arising out of the use of substituted materials or equipment.*
- E. *City's Cost Reimbursement:* City will record City's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 5.05.A.2 and 5.05.B. Whether or not City approves a substitute so proposed or submitted by Contractor, Contractor may be required to reimburse City for evaluating each such proposed substitute. Contractor may also be required to reimburse City for the charges for making changes in the Contract Documents.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.
- G. *Substitute Reimbursement:* Costs (savings or charges) attributable to acceptance of a substitute shall be incorporated to the Contract by Participating Change Order.

5.06 *Pre-Qualification of Bidders (Prime Contractors and Subcontractors)*

- A. The Contractor and any subcontractors are required to be prequalified for the work types requiring pre-qualification

5.07 *Concerning Subcontractors, Suppliers, and Others*

- A. *Minority and Women Owned Business Enterprise Compliance:*

- Required for this Contract.
(Check this box if there is any City Participation)
- Not Required for this Contract.

It is City policy to ensure the full and equitable participation by Minority and Women Business Enterprises (MWBE) in the procurement of goods and services on a contractual basis. If the Contract Documents provide for a MWBE goal, Contractor is required to comply with the intent of the City's MWBE Ordinance (as amended) by the following:

1. Contractor shall, upon request by City, provide complete and accurate information regarding actual work performed by a MWBE on the Contract and payment therefor.
 2. Contractor will not make additions, deletions, or substitutions of accepted MWBE without written consent of the City. Any unjustified change or deletion shall be a material breach of Contract and may result in debarment in accordance with the procedures outlined in the Ordinance.
 3. Contractor shall, upon request by City, allow an audit and/or examination of any books, records, or files in the possession of the Contractor that will substantiate the actual work performed by an MWBE. Material misrepresentation of any nature will be grounds for termination of the Contract. Any such misrepresentation may be grounds for disqualification of Contractor to bid on future contracts with the City for a period of not less than three years.
- B. Contractor shall be fully responsible to City 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. 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 City and any such Subcontractor, Supplier or other individual or entity; nor
 2. shall create any obligation on the part of City to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- C. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- D. All Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work shall communicate with City through Contractor.
- E. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of these Contract

Documents, Contractor shall provide City contract numbers and reference numbers to the Subcontractors and/or Suppliers.

5.08 *Wage Rates*

Required for this Contract.

Not Required for this Contract.

- A. *Duty to pay Prevailing Wage Rates.* The Contractor shall comply with all requirements of Chapter 2258, Texas Government Code (as amended), including the payment of not less than the rates determined by the City Council of the City of Fort Worth to be the prevailing wage rates in accordance with Chapter 2258. Such prevailing wage rates are included in these Contract Documents.
- B. *Penalty for Violation.* A Contractor or any Subcontractor who does not pay the prevailing wage shall, upon demand made by the City, pay to the City \$60 for each worker employed for each calendar day or part of the day that the worker is paid less than the prevailing wage rates stipulated in these contract documents. This penalty shall be retained by the City to offset its administrative costs, pursuant to Texas Government Code 2258.023.
- C. *Complaints of Violations and City Determination of Good Cause.* On receipt of information, including a complaint by a worker, concerning an alleged violation of 2258.023, Texas Government Code, by a Contractor or Subcontractor, the City shall make an initial determination, before the 31st day after the date the City receives the information, as to whether good cause exists to believe that the violation occurred. The City shall notify in writing the Contractor or Subcontractor and any affected worker of its initial determination. Upon the City's determination that there is good cause to believe the Contractor or Subcontractor has violated Chapter 2258, the City shall retain the full amounts claimed by the claimant or claimants as the difference between wages paid and wages due under the prevailing wage rates, such amounts being subtracted from successive progress payments pending a final determination of the violation.
- D. *Arbitration Required if Violation Not Resolved.* An issue relating to an alleged violation of Section 2258.023, Texas Government Code, including a penalty owed to the City or an affected worker, shall be submitted to binding arbitration in accordance with the Texas General Arbitration Act (Article 224 et seq., Revised Statutes) if the Contractor or Subcontractor and any affected worker does not resolve the issue by agreement before the 15th day after the date the City makes its initial determination pursuant to Paragraph C above. If the persons required to arbitrate under this section do not agree on an arbitrator before the 11th day after the date that arbitration is required, a district court shall appoint an arbitrator on the petition of any of the persons. The City is not a party in the arbitration. The decision and award of the arbitrator is final and binding on all parties and may be enforced in any court of competent jurisdiction.
- E. *Records to be Maintained.* The Contractor and each Subcontractor shall, for a period of three (3) years following the date of acceptance of the work, maintain records that show (i) the name and

occupation of each worker employed by the Contractor in the construction of the Work provided for in this Contract; and (ii) the actual per diem wages paid to each worker. The records shall be open at all reasonable hours for inspection by the City. The provisions of Paragraph 6.23, Right to Audit, shall pertain to this inspection.

- F. *Progress Payments.* With each progress payment or payroll period, whichever is less, the Contractor shall submit an affidavit stating that the Contractor has complied with the requirements of Chapter 2258, Texas Government Code.
- G. *Posting of Wage Rates.* The Contractor shall post prevailing wage rates in a conspicuous place at all times.
- H. *Subcontractor Compliance.* The Contractor shall include in its subcontracts and/or shall otherwise require all of its Subcontractors to comply with Paragraphs A through G above.

5.09 *Patent Fees and Royalties*

- A. *To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless City, 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.*

5.10 *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, the City shall not be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear 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. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.01.

5.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or

other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. At any time when, in the judgment of the City, the Contractor has obstructed or closed or is carrying on operations in a portion of a street, right-of-way, or easement greater than is necessary for proper execution of the Work, the City may require the Contractor to finish the section on which operations are in progress before work is commenced on any additional area of the Site.
 3. Should any Damage Claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly attempt to resolve the Damage Claim.
 4. *Pursuant to Paragraph 5.18, Contractor shall indemnify and hold harmless City, from and against all claims, costs, losses, and damages arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against City.*
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other 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. *Site Maintenance Cleaning:* 24 hours after written notice is given to the Contractor that the clean-up on the job site is proceeding in a manner unsatisfactory to the City or Developer, if the Contractor fails to correct the unsatisfactory procedure, the City may take such direct action as the City deems appropriate to correct the clean-up deficiencies cited to the Contractor in the written notice (by letter or electronic communication), and shall be entitled to recover its cost in doing so. The City may withhold Final Acceptance until clean-up is complete and cost are recovered.
- D. *Final Site Cleaning:* Prior to Final Acceptance of the Work Contractor shall clean the Site and the Work and make it ready for utilization by City or adjacent property owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition or better all property disturbed by the Work.
- E. *Loading 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 property to stresses or pressures that will endanger it.

5.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site or in a place designated by the Contractor and approved by the City, one (1) record copy of all Drawings, Specifications, Addenda, Change Orders, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved

Samples and a counterpart of all accepted Submittals will be available to City for reference. Upon completion of the Work, these record documents, any operation and maintenance manuals, and Submittals will be delivered to City prior to Final Inspection. Contractor shall include accurate locations for buried and imbedded items.

5.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. 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, 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 owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of City's safety programs, if any.
- D. Contractor shall inform City of the specific requirements of Contractor's safety program, if any, with which City's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 5.13.A.2 or 5.13.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.
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and City has accepted the Work.

5.14 *Safety Representative*

Contractor shall inform City in writing of Contractor's designated safety representative at the Site.

5.15 *Hazard Communication Programs*

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 in accordance with Laws or Regulations.

5.16 *Submittals*

A. Contractor shall submit required Submittals to City for review and acceptance. Each submittal will be identified as required by City.

1. Submit number of copies specified in the General Requirements.
2. Data shown on the Submittals will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show City the services, materials, and equipment Contractor proposes to provide and to enable City to review the information for the limited purposes required by Paragraph 5.16.C.
3. Submittals submitted as herein provided by Contractor and reviewed by City for conformance with the design concept shall be executed in conformity with the Contract Documents unless otherwise required by City.
4. When Submittals are submitted for the purpose of showing the installation in greater detail, their review shall not excuse Contractor from requirements shown on the Drawings and Specifications.
5. For-Information-Only submittals upon which the City is not expected to conduct review or take responsive action may be so identified in the Contract Documents.
6. Submit required number of Samples specified in the Specifications.
7. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as City may require to enable City to review the submittal for the limited purposes required by Paragraph 5.16.C.

B. Where a Submittal is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to City's review and acceptance of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *City's Review:*

1. City will provide timely review of required Submittals in accordance with the Schedule of Submittals acceptable to City. City's review and acceptance 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. City's review and acceptance will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and acceptance of a separate item as such will not indicate approval of the assembly in which the item functions.
3. City's review and acceptance shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Section 01 33 00 and City has given written acceptance of each such variation by specific written notation thereof incorporated in or accompanying the Submittal. City's review and acceptance shall not relieve Contractor from responsibility for complying with the requirements of the Contract Documents.

5.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to City that all Work will be in accordance with the Contract Documents and will not be defective. City and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of 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 City;
 2. recommendation or payment by City or Developer of any progress or final payment;
 3. the issuance of a certificate of Final Acceptance by City or any payment related thereto by City;
 4. use or occupancy of the Work or any part thereof by City;
 5. any review and acceptance of a Submittal by City;
 6. any inspection, test, or approval by others; or

7. any correction of defective Work by City.

- D. The Contractor shall remedy any defects or damages in the Work and pay for any damage to other work or property resulting therefrom which shall appear within a period of two (2) years from the date of Final Acceptance of the Work unless a longer period is specified and shall furnish a good and sufficient maintenance bond, complying with the requirements of Article 4.02.B. The City will give notice of observed defects with reasonable promptness.

5.18 Indemnification

- A. Contractor covenants and agrees to indemnify, hold harmless and defend, at its own expense, the City, its officers, servants and employees, from and against any and all claims arising out of, or alleged to arise out of, the work and services to be performed by the Contractor, its officers, agents, employees, subcontractors, licenses or invitees under this Contract. **THIS INDEMNIFICATION PROVISION IS SPECIFICALLY INTENDED TO OPERATE AND BE EFFECTIVE EVEN IF IT IS ALLEGED OR PROVEN THAT ALL OR SOME OF THE DAMAGES BEING SOUGHT WERE CAUSED, IN WHOLE OR IN PART, BY ANY ACT, OMISSION OR NEGLIGENCE OF THE CITY.** This indemnity provision is intended to include, without limitation, indemnity for costs, expenses and legal fees incurred by the City in defending against such claims and causes of actions.
- B. Contractor covenants and agrees to indemnify and hold harmless, at its own expense, the City, its officers, servants and employees, from and against any and all loss, damage or destruction of property of the City, arising out of, or alleged to arise out of, the work and services to be performed by the Contractor, its officers, agents, employees, subcontractors, licensees or invitees under this Contract. **THIS INDEMNIFICATION PROVISION IS SPECIFICALLY INTENDED TO OPERATE AND BE EFFECTIVE EVEN IF IT IS ALLEGED OR PROVEN THAT ALL OR SOME OF THE DAMAGES BEING SOUGHT WERE CAUSED, IN WHOLE OR IN PART, BY ANY ACT, OMISSION OR NEGLIGENCE OF THE CITY.**

5.19 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.
- 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, City 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 Submittals prepared by such professional. 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 City.

- C. City shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided City has specified to Contractor performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 5.19, City's review and acceptance 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. City's review and acceptance of Submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 5.16.C.

5.20 *Right to Audit:*

- A. The City reserves the right to audit all projects utilizing City funds
- B. The Contractor agrees that the City shall, until the expiration of three (3) years after final payment under this Contract, have access to and the right to examine and photocopy any directly pertinent books, documents, papers, and records of the Contractor involving transactions relating to this Contract. Contractor agrees that the City shall have access during Regular Working Hours to all necessary Contractor facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this Paragraph. The City shall give Contractor reasonable advance notice of intended audits.
- C. Contractor further agrees to include in all its subcontracts hereunder a provision to the effect that the subcontractor agrees that the City shall, until the expiration of three (3) years after final payment under this Contract, have access to and the right to examine and photocopy any directly pertinent books, documents, papers, and records of such Subcontractor, involving transactions to the subcontract, and further, that City shall have access during Regular Working Hours to all Subcontractor facilities, and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this Paragraph. The City shall give Subcontractor reasonable advance notice of intended audits.
- D. Contractor and Subcontractor agree to photocopy such documents as may be requested by the City. The City agrees to reimburse Contractor for the cost of the copies as follows at the rate published in the Texas Administrative Code in effect as of the time copying is performed.

5.21 *Nondiscrimination*

- A. The City is responsible for operating Public Transportation Programs and implementing transit-related projects, which are funded in part with Federal financial assistance awarded by the U.S. Department of Transportation and the Federal Transit Administration (FTA), without discriminating against any person in the United States on the basis of race, color, or national origin.
- B. *Title VI, Civil Rights Act of 1964 as amended:* Contractor shall comply with the requirements of the Act and the Regulations as further defined in the Supplementary Conditions for any project receiving Federal assistance.

ARTICLE 6 – OTHER WORK AT THE SITE

6.01 Related Work at Site

- A. City may perform other work related to the Project at the Site with City's employees, or other City contractors, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then written notice thereof will be given to Contractor prior to starting any such other work; and
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and City, if City is performing other work with City's employees or other City contractors, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. 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 City and the others whose work will be affected.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to City 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 in the work provided by others.

ARTICLE 7 – CITY'S RESPONSIBILITIES

7.01 Inspections, Tests, and Approvals

City's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 11.03.

7.02 Limitations on City's Responsibilities

- A. The City 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. City will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- B. City will notify the Contractor of applicable safety plans pursuant to Paragraph 5.13.

7.03 *Compliance with Safety Program*

While at the Site, City's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which City has been informed pursuant to Paragraph 5.13.

ARTICLE 8 – CITY'S OBSERVATION STATUS DURING CONSTRUCTION

8.01 *City's Project Representative*

City will provide one or more Project Representative(s) during the construction period. The duties and responsibilities and the limitations of authority of City's representative during construction are set forth in the Contract Documents.

- A. City's Project Representative will make visits to the Site at intervals appropriate to the various stages of construction as City deems necessary in order to observe 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, City's Project Representative will determine, in general, if the Work is proceeding in accordance with the Contract Documents. City's Project Representative will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. City's Project Representative's efforts will be directed toward providing City a greater degree of confidence that the completed Work will conform generally to the Contract Documents.
- B. City's Project Representative's visits and observations are subject to all the limitations on authority and responsibility in the Contract Documents.

8.02 *Authorized Variations in Work*

City's Project Representative may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on City Developer, and also on Contractor, who shall perform the Work involved promptly.

8.03 *Rejecting Defective Work*

City will have authority to reject Work which City's Project Representative believes to be defective, or will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. City will have authority to conduct special inspection or testing of the Work as provided in Article 11, whether or not the Work is fabricated, installed, or completed.

8.04 *Determinations for Work Performed*

Contractor will determine the actual quantities and classifications of Work performed. City's Project Representative will review with Contractor the preliminary determinations on such matters before rendering a written recommendation. City's written decision will be final (except as modified to reflect changed factual conditions or more accurate data).

ARTICLE 9 – CHANGES IN THE WORK

9.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, City may, at any time or from time to time, order Extra Work. Upon notice of such Extra Work, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided). Extra Work shall be memorialized by a Participating Change Order which may or may not precede an order of Extra work.
- B. For minor changes of Work not requiring changes to Contract Time or Contract Price on a project with City participation, a Field Order may be issued by the City.

9.02 *Notification to Surety*

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 Time), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted by the Contractor to reflect the effect of any such change.

ARTICLE 10 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIME

10.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Participating Change Order for projects with City participation.

10.02 *Change of Contract Time*

- A. The Contract Time may only be changed by a Participating Change Order for projects with City participation.

10.03 *Delays*

- A. If Contractor is delayed, City shall not be liable to Contractor for any claims, costs, losses, or 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) sustained by Contractor on or in connection with any other project or anticipated project.

ARTICLE 11 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

11.01 Notice of Defects

Notice of all defective Work of which City has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

11.02 Access to Work

City, independent testing laboratories, and governmental agencies with jurisdictional interests 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.

11.03 Tests and Inspections

- A. Contractor shall give City timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. If Contract Documents, Laws or Regulations of any public body having jurisdiction require any of the Work (or part thereof) to be inspected, tested, or approved, Contractor shall assume full responsibility for arranging and obtaining such independent inspections, tests, retests or approvals, pay all costs in connection therewith, and furnish City the required certificates of inspection or approval; excepting, however, those fees specifically identified in the Supplementary Conditions or any Texas Department of Licensure and Regulation (TDLR) inspections, which shall be paid as described in the Supplementary Conditions.
- C. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, re-tests, or approvals required for City's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, re-tests, or approvals shall be performed by organizations approved by City.
- D. City may arrange for the services of an independent testing laboratory ("Testing Lab") to perform any inspections or tests ("Testing") for any part of the Work, as determined solely by City.
 - 1. City will coordinate such Testing to the extent possible, with Contractor;
 - 2. Should any Testing under this Section 11.03 D result in a "fail", "did not pass" or other similar negative result, the Contractor shall be responsible for paying for any and all retests. Contractor's cancellation without cause of City initiated Testing shall be deemed a negative result and require a retest.

3. Any amounts owed for any retest under this Section 11.03 D shall be paid directly to the Testing Lab by Contractor. City will forward all invoices for retests to Developer/Contractor.
 4. If Contractor fails to pay the Testing Lab, City will not issue a letter of Final Acceptance until the Testing Lab is Paid
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of City, Contractor shall, if requested by City, uncover such Work for observation.

11.04 *Uncovering Work*

- A. If any Work is covered contrary to the Contract Documents or specific instructions by the City, it must, if requested by City, be uncovered for City's observation and replaced at Contractor's expense.

11.05 *City May Stop the Work*

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, City may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of City to stop the Work shall not give rise to any duty on the part of City 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.

11.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work pursuant to an acceptable schedule, whether or not fabricated, installed, or completed, or, if the Work has been rejected by City, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, additional testing, 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 removal (including but not limited to all costs of repair or replacement of work of others). Failure to require the removal of any defective Work shall not constitute acceptance of such Work.
- B. When correcting defective Work under the terms of this Paragraph 11.06 or Paragraph 11.07, Contractor shall take no action that would void or otherwise impair City's special warranty and guarantee, if any, on said Work.

11.07 *Correction Period*

- A. If within two (2) years after the date of Final Acceptance (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract

Documents), any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by City or permitted by Laws and Regulations as contemplated in Paragraph 5.10.A is found to be defective, Contractor shall promptly, without cost to City and in accordance with City's written instructions:

1. repair such defective land or areas; or
 2. correct such defective Work; or
 3. if the defective Work has been rejected by City, 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 other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of City's written instructions, or in an emergency where delay would cause serious risk of loss or damage, City may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. 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 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) will be paid by Contractor.
- C. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 11.07, the correction period hereunder with respect to such Work may be required to be extended for an additional period of one year after the end of the initial correction period. City shall provide 30 days written notice to Contractor and Developer should such additional warranty coverage be required. Contractor's obligations under this Paragraph 11.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 11.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

11.08 *City May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from City to correct defective Work, or to remove and replace rejected Work as required by City in accordance with Paragraph 11.06.A, 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, City may, after seven (7) days written notice to Contractor and the Developer, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 11.09, City shall proceed expeditiously. In connection with such corrective or remedial action, City 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 incorporated in the Work, stored at the Site or for which City has paid Contractor but which are

stored elsewhere. Contractor shall allow City, City's representatives, agents, consultants, employees, and City's other contractors, access to the Site to enable City to exercise the rights and remedies under this Paragraph.

- C. 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 other dispute resolution costs) incurred or sustained by City in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and City shall be entitled to an appropriate decrease in the Contract Price.
- D. Contractor shall not be allowed an extension of the Contract Time because of any delay in the performance of the Work attributable to the exercise of City's rights and remedies under this Paragraph 11.09.

ARTICLE 12 – COMPLETION

12.01 Contractor's Warranty of Title

Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment will pass to City no later than the time of Final Acceptance and shall be free and clear of all Liens.

12.02 Partial Utilization

- A. Prior to Final Acceptance of all the Work, City may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which City, determines constitutes a separately functioning and usable part of the Work that can be used by City for its intended purpose without significant interference with Contractor's performance of the remainder of the Work. City at any time may notify Contractor in writing to permit City to use or occupy any such part of the Work which City determines to be ready for its intended use, subject to the following conditions:
 - 1. Contractor at any time may notify City in writing that Contractor considers any such part of the Work ready for its intended use.
 - 2. Within a reasonable time after notification as enumerated in Paragraph 14.05.A.1, City and Contractor shall make an inspection of that part of the Work to determine its status of completion. If City does not consider that part of the Work to be substantially complete, City will notify Contractor in writing giving the reasons therefor.
 - 3. Partial Utilization will not constitute Final Acceptance by City.

12.03 Final Inspection

- A. Upon written notice from Contractor that the entire Work is complete in accordance with the Contract Documents:

1. within 10 days, City will schedule a Final Inspection with Contractor.
2. City will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

12.04 *Final Acceptance*

- A. Upon completion by Contractor to City's satisfaction, of any additional Work identified in the Final Inspection, City will issue to Contractor a letter of Final Acceptance upon the satisfaction of the following:
1. All documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.03;
 2. consent of the surety, if any, to Final Acceptance;
 3. a list of all pending or released Damage Claims against City that Contractor believes are unsettled; and
 4. affidavits of payments and complete and legally effective releases or waivers (satisfactory to City) of all Lien rights arising out of or Liens filed in connection with the Work.
 5. after all Damage Claims have been resolved:
 - a. directly by the Contractor or;
 - b. Contractor provides evidence that the Damage Claim has been reported to Contractor's insurance provider for resolution.
 6. Issuing Final Acceptance by the City shall not relieve the Contractor of any guarantees or other requirements of the Contract Documents which specifically continue thereafter.

ARTICLE 13 – SUSPENSION OF WORK

13.01 *City May Suspend Work*

- A. At any time and without cause, City may suspend the Work or any portion thereof by written notice to Contractor and which may fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. During temporary suspension of the Work covered by these Contract Documents, for any reason, the City will stop contract time on City participation projects.
- B. Should the Contractor not be able to complete a portion of the Project due to causes beyond the control of and without the fault or negligence of the Contractor, and should it be determined by mutual consent of the Contractor and City that a solution to allow construction to proceed is not

available within a reasonable period of time, Contractor may request an extension in Contract Time, directly attributable to any such suspension.

- C. If it should become necessary to suspend the Work for an indefinite period, the Contractor shall store all materials in such a manner that they will not obstruct or impede the public unnecessarily nor become damaged in any way, and he shall take every precaution to prevent damage or deterioration of the work performed; he shall provide suitable drainage about the work, and erect temporary structures where necessary.

ARTICLE 14 – MISCELLANEOUS

14.01 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 to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.
- B. Business address changes must be promptly made in writing to the other party.
- C. Whenever the Contract Documents specifies giving notice by electronic means such electronic notice shall be deemed sufficient upon confirmation of receipt by the receiving party.

14.02 Computation of Times

When any period of time is referred to in the Contract Documents 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 the next Working Day shall become the last day of the period.

14.03 Cumulative Remedies

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 Documents. 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.

14.04 *Survival of Obligations*

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

14.05 *Headings*

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

- 1 b. Excavated and waste materials shall be stored in such a way as not to interfere
- 2 with the use of spaces that may be designated to be left free and unobstructed
- 3 and so as not to inconvenience occupants of adjacent property.
- 4 c. If the street is occupied by railroad tracks, the Work shall be carried on in such
- 5 manner as not to interfere with the operation of the railroad.
- 6 1) All Work shall be in accordance with railroad requirements set forth in
- 7 Division 0 as well as the railroad permit.

8 D. Work within Easements

- 9 1. Do not enter upon private property for any purpose without having previously
- 10 obtained permission from the owner of such property.
- 11 2. Do not store equipment or material on private property unless and until the
- 12 specified approval of the property owner has been secured in writing by the
- 13 Contractor and a copy furnished to the City.
- 14 3. Unless specifically provided otherwise, clear all rights-of-way or easements of
- 15 obstructions which must be removed to make possible proper prosecution of the
- 16 Work as a part of the project construction operations.
- 17 4. Preserve and use every precaution to prevent damage to, all trees, shrubbery, plants,
- 18 lawns, fences, culverts, curbing, and all other types of structures or improvements,
- 19 to all water, sewer, and gas lines, to all conduits, overhead pole lines, or
- 20 appurtenances thereof, including the construction of temporary fences and to all
- 21 other public or private property adjacent to the Work.
- 22 5. Notify the proper representatives of the owners or occupants of the public or private
- 23 lands of interest in lands which might be affected by the Work.
- 24 a. Such notice shall be made at least 48 hours in advance of the beginning of the
- 25 Work.
- 26 b. Notices shall be applicable to both public and private utility companies and any
- 27 corporation, company, individual, or other, either as owners or occupants,
- 28 whose land or interest in land might be affected by the Work.
- 29 c. Be responsible for all damage or injury to property of any character resulting
- 30 from any act, omission, neglect, or misconduct in the manner or method or
- 31 execution of the Work, or at any time due to defective work, material, or
- 32 equipment.
- 33 6. Fence
- 34 a. Restore all fences encountered and removed during construction of the Project
- 35 to the original or a better than original condition.
- 36 b. Erect temporary fencing in place of the fencing removed whenever the Work is
- 37 not in progress and when the site is vacated overnight, and/or at all times to
- 38 provide site security.
- 39 c. The cost for all fence work within easements, including removal, temporary
- 40 closures and replacement, shall be subsidiary to the various items bid in the
- 41 project proposal, unless a bid item is specifically provided in the proposal.

- 1 **1.5 SUBMITTALS [NOT USED]**
- 2 **1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**
- 3 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**
- 4 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**
- 5 **1.9 QUALITY ASSURANCE [NOT USED]**
- 6 **1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**
- 7 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**
- 8 **1.12 WARRANTY [NOT USED]**

9 **PART 2 - PRODUCTS [NOT USED]**

10 **PART 3 - EXECUTION [NOT USED]**

11 **END OF SECTION**

12

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1 **SECTION 01 25 00**
2 **SUBSTITUTION PROCEDURES**

3 **PART 1 - GENERAL**

4 **1.1 SUMMARY**

- 5 A. Section Includes:
- 6 1. The procedure for requesting the approval of substitution of a product that is not
 - 7 equivalent to a product which is specified by descriptive or performance criteria or
 - 8 defined by reference to 1 or more of the following:
 - 9 a. Name of manufacturer
 - 10 b. Name of vendor
 - 11 c. Trade name
 - 12 d. Catalog number
 - 13 2. Substitutions are not "or-equals".
- 14 B. Deviations from this City of Fort Worth Standard Specification
- 15 1. None.
- 16 C. Related Specification Sections include, but are not necessarily limited to:
- 17 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
 - 18 2. Division 1 – General Requirements

19 **1.2 PRICE AND PAYMENT PROCEDURES**

- 20 A. Measurement and Payment
- 21 1. Work associated with this Item is considered subsidiary to the various items bid.
 - 22 No separate payment will be allowed for this Item.

23 **1.3 REFERENCES [NOT USED]**

24 **1.4 ADMINISTRATIVE REQUIREMENTS**

- 25 A. Request for Substitution - General
- 26 1. Within 30 days after award of Contract (unless noted otherwise), the City will
 - 27 consider formal requests from Contractor for substitution of products in place of
 - 28 those specified.
 - 29 2. Certain types of equipment and kinds of material are described in Specifications by
 - 30 means of references to names of manufacturers and vendors, trade names, or
 - 31 catalog numbers.
 - 32 a. When this method of specifying is used, it is not intended to exclude from
 - 33 consideration other products bearing other manufacturer's or vendor's names,
 - 34 trade names, or catalog numbers, provided said products are "or-equals," as
 - 35 determined by City.
 - 36 3. Other types of equipment and kinds of material may be acceptable substitutions
 - 37 under the following conditions:
 - 38 a. Or-equals are unavailable due to strike, discontinued production of products
 - 39 meeting specified requirements, or other factors beyond control of Contractor;
 - 40 or,

1 b. Contractor proposes a cost and/or time reduction incentive to the City.

2 **1.5 SUBMITTALS**

3 A. See Request for Substitution Form (attached)

4 B. Procedure for Requesting Substitution

5 1. Substitution shall be considered only:

- 6 a. After award of Contract
7 b. Under the conditions stated herein

8 2. Submit **3** copies of each written request for substitution, including:

9 a. Documentation

- 10 1) Complete data substantiating compliance of proposed substitution with
11 Contract Documents
12 2) Data relating to changes in construction schedule, when a reduction is
13 proposed
14 3) Data relating to changes in cost

15 b. For products

- 16 1) Product identification
17 a) Manufacturer's name
18 b) Telephone number and representative contact name
19 c) Specification Section or Drawing reference of originally specified
20 product, including discrete name or tag number assigned to original
21 product in the Contract Documents
22 2) Manufacturer's literature clearly marked to show compliance of proposed
23 product with Contract Documents
24 3) Itemized comparison of original and proposed product addressing product
25 characteristics including, but not necessarily limited to:
26 a) Size
27 b) Composition or materials of construction
28 c) Weight
29 d) Electrical or mechanical requirements
30 4) Product experience
31 a) Location of past projects utilizing product
32 b) Name and telephone number of persons associated with referenced
33 projects knowledgeable concerning proposed product
34 c) Available field data and reports associated with proposed product
35 5) Samples
36 a) Provide at request of City.
37 b) Samples become the property of the City.

38 c. For construction methods:

- 39 1) Detailed description of proposed method
40 2) Illustration drawings

41 C. Approval or Rejection

- 42 1. Written approval or rejection of substitution given by the City
43 2. City reserves the right to require proposed product to comply with color and pattern
44 of specified product if necessary to secure design intent.
45 3. In the event the substitution is approved, the resulting cost and/or time reduction
46 will be documented by Change Order in accordance with the General Conditions.

- 4. No additional contract time will be given for substitution.
- 5. Substitution will be rejected if:
 - a. Submittal is not through the Contractor with his stamp of approval
 - b. Request is not made in accordance with this Specification Section
 - c. In the City's opinion, acceptance will require substantial revision of the original design
 - d. In the City's opinion, substitution will not perform adequately the function consistent with the design intent

1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]

1.7 CLOSEOUT SUBMITTALS [NOT USED]

1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]

1.9 QUALITY ASSURANCE

- A. In making request for substitution or in using an approved product, the Contractor represents that the Contractor:
 - 1. Has investigated proposed product, and has determined that it is adequate or superior in all respects to that specified, and that it will perform function for which it is intended
 - 2. Will provide same guarantee for substitute item as for product specified
 - 3. Will coordinate installation of accepted substitution into Work, to include building modifications if necessary, making such changes as may be required for Work to be complete in all respects
 - 4. Waives all claims for additional costs related to substitution which subsequently arise

1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]

1.11 FIELD [SITE] CONDITIONS [NOT USED]

1.12 WARRANTY [NOT USED]

PART 2 - PRODUCTS [NOT USED]

PART 3 - EXECUTION [NOT USED]

END OF SECTION

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EXHIBIT A
REQUEST FOR SUBSTITUTION FORM:

TO: _____

PROJECT: _____ DATE: _____

We hereby submit for your consideration the following product instead of the specified item for the above project:

SECTION	PARAGRAPH	SPECIFIED ITEM

Proposed Substitution: _____

Reason for Substitution: _____

Include complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation.

Fill in Blanks Below:

A. Will the undersigned contractor pay for changes to the building design, including engineering and detailing costs caused by the requested substitution?

B. What effect does substitution have on other trades? _____

C. Differences between proposed substitution and specified item? _____

D. Differences in product cost or product delivery time? _____

E. Manufacturer's guarantees of the proposed and specified items are: _____

_____ Equal _____ Better (explain on attachment)

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

Submitted By: _____ For Use by City _____

Signature _____ ___ Recommended ___ Recommended

as noted

Firm _____ ___ Not recommended ___ Received late

Address _____ By _____

Date _____ Date _____

Date _____ Remarks _____

Telephone _____ _____

For Use by City: _____

_____ Approved _____ Rejected

City _____ Date _____

- 1 e. Other City representatives
- 2 f. Others as appropriate
- 3 4. Construction Schedule
- 4 a. Prepare baseline construction schedule in accordance with Section 01 32 16 and
- 5 provide at Preconstruction Meeting.
- 6 b. City will notify Contractor of any schedule changes upon Notice of
- 7 Preconstruction Meeting.
- 8 5. Preliminary Agenda may include:
- 9 a. Introduction of Project Personnel
- 10 b. General Description of Project
- 11 c. Status of right-of-way, utility clearances, easements or other pertinent permits
- 12 d. Contractor's work plan and schedule
- 13 e. Contract Time
- 14 f. Notice to Proceed
- 15 g. Construction Staking
- 16 h. Progress Payments
- 17 i. Extra Work and Change Order Procedures
- 18 j. Field Orders
- 19 k. Disposal Site Letter for Waste Material
- 20 l. Insurance Renewals
- 21 m. Payroll Certification
- 22 n. Material Certifications and Quality Control Testing
- 23 o. Public Safety and Convenience
- 24 p. Documentation of Pre-Construction Conditions
- 25 q. Weekend Work Notification
- 26 r. Legal Holidays
- 27 s. Trench Safety Plans
- 28 t. Confined Space Entry Standards
- 29 u. Coordination with the City's representative for operations of existing water
- 30 systems
- 31 v. Storm Water Pollution Prevention Plan
- 32 w. Coordination with other Contractors
- 33 x. Early Warning System
- 34 y. Contractor Evaluation
- 35 z. Special Conditions applicable to the project
- 36 aa. Damages Claims
- 37 bb. Submittal Procedures
- 38 cc. Substitution Procedures
- 39 dd. Correspondence Routing
- 40 ee. Record Drawings
- 41 ff. Temporary construction facilities
- 42 gg. M/WBE or MBE/SBE procedures
- 43 hh. Final Acceptance
- 44 ii. Final Payment
- 45 jj. Questions or Comments

- 1 **1.5 SUBMITTALS [NOT USED]**
- 2 **1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**
- 3 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**
- 4 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**
- 5 **1.9 QUALITY ASSURANCE [NOT USED]**
- 6 **1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**
- 7 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**
- 8 **1.12 WARRANTY [NOT USED]**

- 9 **PART 2 - PRODUCTS [NOT USED]**

- 10 **PART 3 - EXECUTION [NOT USED]**

11 **END OF SECTION**

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- 1 2. **Baseline Schedule** - Initial schedule submitted before work begins that will serve
- 2 as the baseline for measuring progress and departures from the schedule.
- 3 3. **Progress Schedule** - Monthly submittal of a progress schedule documenting
- 4 progress on the project and any changes anticipated.
- 5 4. **Schedule Narrative** - Concise narrative of the schedule including schedule
- 6 changes, expected delays, key schedule issues, critical path items, etc

7 B. Reference Standards

- 8 1. City of Fort Worth Schedule Guidance Document

9 **1.4 ADMINISTRATIVE REQUIREMENTS**

10 A. Baseline Schedule

11 1. General

- 12 a. Prepare a cost-loaded baseline Schedule using approved software and the
- 13 Critical Path Method (CPM) as required in the City of Fort Worth Schedule
- 14 Guidance Document.
- 15 b. Review the draft cost-loaded baseline Schedule with the City to demonstrate
- 16 understanding of the work to be performed and known issues and constraints
- 17 related to the schedule.
- 18 c. Designate an authorized representative (Project Scheduler) responsible for
- 19 developing and updating the schedule and preparing reports.

20 B. Progress Schedule

- 21 1. Update the progress Schedule monthly as required in the City of Fort Worth
- 22 Schedule Guidance Document.
- 23 2. Prepare the Schedule Narrative to accompany the monthly progress Schedule.
- 24 3. Change Orders
- 25 a. Incorporate approved change orders, resulting in a change of contract time, in
- 26 the baseline Schedule in accordance with City of Fort Worth Schedule
- 27 Guidance Document.

28 C. Responsibility for Schedule Compliance

- 29 1. Whenever it becomes apparent from the current progress Schedule and CPM Status
- 30 Report that delays to the critical path have resulted and the Contract completion
- 31 date will not be met, or when so directed by the City, make some or all of the
- 32 following actions at no additional cost to the City
- 33 a. Submit a Recovery Plan to the City for approval revised baseline Schedule
- 34 outlining:
 - 35 1) A written statement of the steps intended to take to remove or arrest the
 - 36 delay to the critical path in the approved schedule
 - 37 2) Increase construction manpower in such quantities and crafts as will
 - 38 substantially eliminate the backlog of work and return current Schedule to
 - 39 meet projected baseline completion dates
 - 40 3) Increase the number of working hours per shift, shifts per day, working
 - 41 days per week, the amount of construction equipment, or any combination
 - 42 of the foregoing, sufficiently to substantially eliminate the backlog of work
 - 43 4) Reschedule activities to achieve maximum practical concurrency of
 - 44 accomplishment of activities, and comply with the revised schedule

- 1 2. If no written statement of the steps intended to take is submitted when so requested
2 by the City, the City may direct the Contractor to increase the level of effort in
3 manpower (trades), equipment and work schedule (overtime, weekend and holiday
4 work, etc.) to be employed by the Contractor in order to remove or arrest the delay
5 to the critical path in the approved schedule.
6 a. No additional cost for such work will be considered.
- 7 D. The Contract completion time will be adjusted only for causes specified in this
8 Contract.
- 9 a. Requests for an extension of any Contract completion date must be
10 supplemented with the following:
- 11 1) Furnish justification and supporting evidence as the City may deem
12 necessary to determine whether the requested extension of time is entitled
13 under the provisions of this Contract.
- 14 a) The City will, after receipt of such justification and supporting
15 evidence, make findings of fact and will advise the Contractor, in
16 writing thereof.
- 17 2) If the City finds that the requested extension of time is entitled, the City's
18 determination as to the total number of days allowed for the extensions
19 shall be based upon the approved total baseline schedule and on all data
20 relevant to the extension.
- 21 a) Such data shall be included in the next updating of the Progress
22 schedule.
- 23 b) Actual delays in activities which, according to the Baseline schedule,
24 do not affect any Contract completion date shown by the critical path in
25 the network will not be the basis for a change therein.
- 26 2. Submit each request for change in Contract completion date to the City within 30
27 days after the beginning of the delay for which a time extension is requested but
28 before the date of final payment under this Contract.
- 29 a. No time extension will be granted for requests which are not submitted within
30 the foregoing time limit.
- 31 b. From time to time, it may be necessary for the Contract schedule or completion
32 time to be adjusted by the City to reflect the effects of job conditions, weather,
33 technical difficulties, strikes, unavoidable delays on the part of the City or its
34 representatives, and other unforeseeable conditions which may indicate
35 schedule adjustments or completion time extensions.
- 36 1) Under such conditions, the City will direct the Contractor to reschedule the
37 work or Contract completion time to reflect the changed conditions and the
38 Contractor shall revise his schedule accordingly.
- 39 a) No additional compensation will be made to the Contractor for such
40 schedule changes except for unavoidable overall contract time
41 extensions beyond the actual completion of unaffected work, in which
42 case the Contractor shall take all possible action to minimize any time
43 extension and any additional cost to the City.
- 44 b) Available float time in the Baseline schedule may be used by the City
45 as well as by the Contractor.
- 46 3. Float or slack time is defined as the amount of time between the earliest start date
47 and the latest start date or between the earliest finish date and the latest finish date
48 of a chain of activities on the Baseline Schedule.

- a. Float or slack time is not for the exclusive use or benefit of either the Contractor or the City.
- b. Proceed with work according to early start dates, and the City shall have the right to reserve and apportion float time according to the needs of the project.
- c. Acknowledge and agree that actual delays, affecting paths of activities containing float time, will not have any effect upon contract completion times, providing that the actual delay does not exceed the float time associated with those activities.

E. Coordinating Schedule with Other Contract Schedules

1. Where work is to be performed under this Contract concurrently with or contingent upon work performed on the same facilities or area under other contracts, the Baseline Schedule shall be coordinated with the schedules of the other contracts.
 - a. Obtain the schedules of the other appropriate contracts from the City for the preparation and updating of Baseline schedule and make the required changes in his schedule when indicated by changes in corresponding schedules.
2. In case of interference between the operations of different contractors, the City will determine the work priority of each contractor and the sequence of work necessary to expedite the completion of the entire Project.
 - a. In such cases, the decision of the City shall be accepted as final.
 - b. The temporary delay of any work due to such circumstances shall not be considered as justification for claims for additional compensation.

1.5 SUBMITTALS

A. Baseline Schedule

1. Submit Schedule in native file format and pdf format as required in the City of Fort Worth Schedule Guidance Document.
 - a. Native file format includes:
 - 1) Primavera (P6 or Primavera Contractor)
2. Submit draft baseline Schedule to City prior to the pre-construction meeting and bring in hard copy to the meeting for review and discussion.

B. Progress Schedule

1. Submit progress Schedule in native file format and pdf format as required in the City of Fort Worth Schedule Guidance Document.
2. Submit progress Schedule monthly no later than the last day of the month.

C. Schedule Narrative

1. Submit the schedule narrative in pdf format as required in the City of Fort Worth Schedule Guidance Document.
2. Submit schedule narrative monthly no later than the last day of the month.

D. Submittal Process

1. The City administers and manages schedules through Buzzsaw.
2. Contractor shall submit documents as required in the City of Fort Worth Schedule Guidance Document.
3. Once the project has been completed and Final Acceptance has been issued by the City, no further progress schedules are required.

1 **1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**

2 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**

3 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**

4 **1.9 QUALITY ASSURANCE**

5 A. The person preparing and revising the construction Progress Schedule shall be
6 experienced in the preparation of schedules of similar complexity.

7 B. Schedule and supporting documents addressed in this Specification shall be prepared,
8 updated and revised to accurately reflect the performance of the construction.

9 C. Contractor is responsible for the quality of all submittals in this section meeting the
10 standard of care for the construction industry for similar projects.

11 **1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**

12 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**

13 **1.12 WARRANTY [NOT USED]**

14 **PART 2 - PRODUCTS [NOT USED]**

15 **PART 3 - EXECUTION [NOT USED]**

16 **END OF SECTION**

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1 **PART 3 - EXECUTION [NOT USED]**

2 **END OF SECTION**

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- 1 d. Make submittals promptly in accordance with approved schedule, and in such
2 sequence as to cause no delay in the Work or in the work of any other
3 contractor.

4 B. Submittal Numbering

- 5 1. When submitting shop drawings or samples, utilize a 9-character submittal cross-
6 reference identification numbering system in the following manner:
7 a. Use the first 6 digits of the applicable Specification Section Number.
8 b. For the next 2 digits number use numbers 01-99 to sequentially number each
9 initial separate item or drawing submitted under each specific Section number.
10 c. Last use a letter, A-Z, indicating the resubmission of the same drawing (i.e.
11 A=2nd submission, B=3rd submission, C=4th submission, etc.). A typical
12 submittal number would be as follows:

13
14 03 30 00-08-B
15

- 16 1) 03 30 00 is the Specification Section for Concrete
17 2) 08 is the eighth initial submittal under this Specification Section
18 3) B is the third submission (second resubmission) of that particular shop
19 drawing

20 C. Contractor Certification

- 21 1. Review shop drawings, product data and samples, including those by
22 subcontractors, prior to submission to determine and verify the following:
23 a. Field measurements
24 b. Field construction criteria
25 c. Catalog numbers and similar data
26 d. Conformance with the Contract Documents
27 2. Provide each shop drawing, sample and product data submitted by the Contractor
28 with a Certification Statement affixed including:
29 a. The Contractor's Company name
30 b. Signature of submittal reviewer
31 c. Certification Statement
32 1) "By this submittal, I hereby represent that I have determined and verified
33 field measurements, field construction criteria, materials, dimensions,
34 catalog numbers and similar data and I have checked and coordinated each
35 item with other applicable approved shop drawings."

36 D. Submittal Format

- 37 1. Fold shop drawings larger than 8 ½ inches x 11 inches to 8 ½ inches x 11 inches.
38 2. Bind shop drawings and product data sheets together.
39 3. Order
40 a. Cover Sheet
41 1) Description of Packet
42 2) Contractor Certification
43 b. List of items / Table of Contents
44 c. Product Data /Shop Drawings/Samples /Calculations

45 E. Submittal Content

- 46 1. The date of submission and the dates of any previous submissions

- 1 2. The Project title and number
- 2 3. Contractor identification
- 3 4. The names of:
- 4 a. Contractor
- 5 b. Supplier
- 6 c. Manufacturer
- 7 5. Identification of the product, with the Specification Section number, page and
- 8 paragraph(s)
- 9 6. Field dimensions, clearly identified as such
- 10 7. Relation to adjacent or critical features of the Work or materials
- 11 8. Applicable standards, such as ASTM or Federal Specification numbers
- 12 9. Identification by highlighting of deviations from Contract Documents
- 13 10. Identification by highlighting of revisions on resubmittals
- 14 11. An 8-inch x 3-inch blank space for Contractor and City stamps
- 15 F. Shop Drawings
- 16 1. As specified in individual Work Sections includes, but is not necessarily limited to:
- 17 a. Custom-prepared data such as fabrication and erection/installation (working)
- 18 drawings
- 19 b. Scheduled information
- 20 c. Setting diagrams
- 21 d. Actual shopwork manufacturing instructions
- 22 e. Custom templates
- 23 f. Special wiring diagrams
- 24 g. Coordination drawings
- 25 h. Individual system or equipment inspection and test reports including:
- 26 1) Performance curves and certifications
- 27 i. As applicable to the Work
- 28 2. Details
- 29 a. Relation of the various parts to the main members and lines of the structure
- 30 b. Where correct fabrication of the Work depends upon field measurements
- 31 1) Provide such measurements and note on the drawings prior to submitting
- 32 for approval.
- 33 G. Product Data
- 34 1. For submittals of product data for products included on the City's Standard Product
- 35 List, clearly identify each item selected for use on the Project.
- 36 2. For submittals of product data for products not included on the City's Standard
- 37 Product List, submittal data may include, but is not necessarily limited to:
- 38 a. Standard prepared data for manufactured products (sometimes referred to as
- 39 catalog data)
- 40 1) Such as the manufacturer's product specification and installation
- 41 instructions
- 42 2) Availability of colors and patterns
- 43 3) Manufacturer's printed statements of compliances and applicability
- 44 4) Roughing-in diagrams and templates
- 45 5) Catalog cuts
- 46 6) Product photographs

- 1 7) Standard wiring diagrams
- 2 8) Printed performance curves and operational-range diagrams
- 3 9) Production or quality control inspection and test reports and certifications
- 4 10) Mill reports
- 5 11) Product operating and maintenance instructions and recommended
- 6 spare-parts listing and printed product warranties
- 7 12) As applicable to the Work

8 H. Samples

- 9 1. As specified in individual Sections, include, but are not necessarily limited to:
- 10 a. Physical examples of the Work such as:
- 11 1) Sections of manufactured or fabricated Work
- 12 2) Small cuts or containers of materials
- 13 3) Complete units of repetitively used products color/texture/pattern swatches
- 14 and range sets
- 15 4) Specimens for coordination of visual effect
- 16 5) Graphic symbols and units of Work to be used by the City for independent
- 17 inspection and testing, as applicable to the Work
- 18 I. Do not start Work requiring a shop drawing, sample or product data nor any material to
- 19 be fabricated or installed prior to the approval or qualified approval of such item.
- 20 1. Fabrication performed, materials purchased or on-site construction accomplished
- 21 which does not conform to approved shop drawings and data is at the Contractor's
- 22 risk.
- 23 2. The City will not be liable for any expense or delay due to corrections or remedies
- 24 required to accomplish conformity.
- 25 3. Complete project Work, materials, fabrication, and installations in conformance
- 26 with approved shop drawings, applicable samples, and product data.

27 J. Submittal Distribution

- 28 1. Electronic Distribution
- 29 a. Confirm development of Project directory for electronic submittals to be
- 30 uploaded to City's Buzzsaw site, or another external FTP site approved by the
- 31 City.
- 32 b. Shop Drawings
- 33 1) Upload submittal to designated project directory and notify appropriate
- 34 City representatives via email of submittal posting.
- 35 2) Hard Copies
- 36 a) 3 copies for all submittals
- 37 b) If Contractor requires more than 1 hard copy of Shop Drawings
- 38 returned, Contractor shall submit more than the number of copies listed
- 39 above.
- 40 c. Product Data
- 41 1) Upload submittal to designated project directory and notify appropriate
- 42 City representatives via email of submittal posting.
- 43 2) Hard Copies
- 44 a) 3 copies for all submittals
- 45 d. Samples
- 46 1) Distributed to the Project Representative
- 47 2. Hard Copy Distribution (if required in lieu of electronic distribution)

- 1 a. Shop Drawings
- 2 1) Distributed to the City
- 3 2) Copies
- 4 a) 8 copies for mechanical submittals
- 5 b) 7 copies for all other submittals
- 6 c) If Contractor requires more than 3 copies of Shop Drawings returned,
- 7 Contractor shall submit more than the number of copies listed above.
- 8 b. Product Data
- 9 1) Distributed to the City
- 10 2) Copies
- 11 a) 4 copies
- 12 c. Samples
- 13 1) Distributed to the Project Representative
- 14 2) Copies
- 15 a) Submit the number stated in the respective Specification Sections.
- 16 3. Distribute reproductions of approved shop drawings and copies of approved
- 17 product data and samples, where required, to the job site file and elsewhere as
- 18 directed by the City.
- 19 a. Provide number of copies as directed by the City but not exceeding the number
- 20 previously specified.

21 K. Submittal Review

- 22 1. The review of shop drawings, data and samples will be for general conformance
- 23 with the design concept and Contract Documents. This is not to be construed as:
- 24 a. Permitting any departure from the Contract requirements
- 25 b. Relieving the Contractor of responsibility for any errors, including details,
- 26 dimensions, and materials
- 27 c. Approving departures from details furnished by the City, except as otherwise
- 28 provided herein
- 29 2. The review and approval of shop drawings, samples or product data by the City
- 30 does not relieve the Contractor from his/her responsibility with regard to the
- 31 fulfillment of the terms of the Contract.
- 32 a. All risks of error and omission are assumed by the Contractor, and the City will
- 33 have no responsibility therefore.
- 34 3. The Contractor remains responsible for details and accuracy, for coordinating the
- 35 Work with all other associated work and trades, for selecting fabrication processes,
- 36 for techniques of assembly and for performing Work in a safe manner.
- 37 4. If the shop drawings, data or samples as submitted describe variations and show a
- 38 departure from the Contract requirements which City finds to be in the interest of
- 39 the City and to be so minor as not to involve a change in Contract Price or time for
- 40 performance, the City may return the reviewed drawings without noting an
- 41 exception.
- 42 5. Submittals will be returned to the Contractor under 1 of the following codes:
- 43 a. Code 1
- 44 1) "NO EXCEPTIONS TAKEN" is assigned when there are no notations or
- 45 comments on the submittal.
- 46 a) When returned under this code the Contractor may release the
- 47 equipment and/or material for manufacture.
- 48 b. Code 2

- 1) "EXCEPTIONS NOTED". This code is assigned when a confirmation of the notations and comments IS NOT required by the Contractor.
- a) The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.
- c. Code 3
- 1) "EXCEPTIONS NOTED/RESUBMIT". This combination of codes is assigned when notations and comments are extensive enough to require a resubmittal of the package.
- a) The Contractor may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product.
- b) This resubmittal is to address all comments, omissions and non-conforming items that were noted.
- c) Resubmittal is to be received by the City within 15 Calendar Days of the date of the City's transmittal requiring the resubmittal.
- d. Code 4
- 1) "NOT APPROVED" is assigned when the submittal does not meet the intent of the Contract Documents.
- a) The Contractor must resubmit the entire package revised to bring the submittal into conformance.
- b) It may be necessary to resubmit using a different manufacturer/vendor to meet the Contract Documents.
6. Resubmittals
- a. Handled in the same manner as first submittals
- 1) Corrections other than requested by the City
- 2) Marked with revision triangle or other similar method
- a) At Contractor's risk if not marked
- b. Submittals for each item will be reviewed no more than twice at the City's expense.
- 1) All subsequent reviews will be performed at times convenient to the City and at the Contractor's expense, based on the City's or City Representative's then prevailing rates.
- 2) Provide Contractor reimbursement to the City within 30 Calendar Days for all such fees invoiced by the City.
- c. The need for more than 1 resubmission or any other delay in obtaining City's review of submittals, will not entitle the Contractor to an extension of Contract Time.
7. Partial Submittals
- a. City reserves the right to not review submittals deemed partial, at the City's discretion.
- b. Submittals deemed by the City to be not complete will be returned to the Contractor, and will be considered "Not Approved" until resubmitted.
- c. The City may at its option provide a list or mark the submittal directing the Contractor to the areas that are incomplete.
8. If the Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, then written notice must be provided thereof to the City at least 7 Calendar Days prior to release for manufacture.

- 1 9. When the shop drawings have been completed to the satisfaction of the City, the
2 Contractor may carry out the construction in accordance therewith and no further
3 changes therein except upon written instructions from the City.
- 4 10. Each submittal, appropriately coded, will be returned within 30 Calendar Days
5 following receipt of submittal by the City.
- 6 L. Mock ups
- 7 1. Mock Up units as specified in individual Sections, include, but are not necessarily
8 limited to, complete units of the standard of acceptance for that type of Work to be
9 used on the Project. Remove at the completion of the Work or when directed.
- 10 M. Qualifications
- 11 1. If specifically required in other Sections of these Specifications, submit a P.E.
12 Certification for each item required.
- 13 N. Request for Information (RFI)
- 14 1. Contractor Request for additional information
- 15 a. Clarification or interpretation of the contract documents
- 16 b. When the Contractor believes there is a conflict between Contract Documents
- 17 c. When the Contractor believes there is a conflict between the Drawings and
18 Specifications
- 19 1) Identify the conflict and request clarification
- 20 2. Use the Request for Information (RFI) form provided by the City.
- 21 3. Numbering of RFI
- 22 a. Prefix with “RFI” followed by series number, “-xxx”, beginning with “01” and
23 increasing sequentially with each additional transmittal.
- 24 4. Sufficient information shall be attached to permit a written response without further
25 information.
- 26 5. The City will log each request and will review the request.
- 27 a. If review of the project information request indicates that a change to the
28 Contract Documents is required, the City will issue a Field Order or Change
29 Order, as appropriate.
- 30 **1.5 SUBMITTALS [NOT USED]**
- 31 **1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**
- 32 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**
- 33 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**
- 34 **1.9 QUALITY ASSURANCE [NOT USED]**
- 35 **1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**
- 36 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**
- 37 **1.12 WARRANTY [NOT USED]**

1 **PART 2 - PRODUCTS [NOT USED]**

2 **PART 3 - EXECUTION [NOT USED]**

3 **END OF SECTION**

4

Revision Log		
DATE	NAME	SUMMARY OF CHANGE
12/20/2012	D. Johnson	1.4.K.8. Working Days modified to Calendar Days

5

- 1 b. All work performed in the TxDOT right-of-way shall be performed in
2 compliance with and subject to approval from the Texas Department of
3 Transportation
- 4 B. Work near High Voltage Lines
- 5 1. Regulatory Requirements
- 6 a. All Work near High Voltage Lines (more than 600 volts measured between
7 conductors or between a conductor and the ground) shall be in accordance with
8 Health and Safety Code, Title 9, Subtitle A, Chapter 752.
- 9 2. Warning sign
- 10 a. Provide sign of sufficient size meeting all OSHA requirements.
- 11 3. Equipment operating within 10 feet of high voltage lines will require the following
12 safety features
- 13 a. Insulating cage-type of guard about the boom or arm
- 14 b. Insulator links on the lift hook connections for back hoes or dippers
- 15 c. Equipment must meet the safety requirements as set forth by OSHA and the
16 safety requirements of the owner of the high voltage lines
- 17 4. Work within 6 feet of high voltage electric lines
- 18 a. Notification shall be given to:
- 19 1) The power company (example: ONCOR)
- 20 a) Maintain an accurate log of all such calls to power company and record
21 action taken in each case.
- 22 b. Coordination with power company
- 23 1) After notification coordinate with the power company to:
- 24 a) Erect temporary mechanical barriers, de-energize the lines, or raise or
25 lower the lines
- 26 c. No personnel may work within 6 feet of a high voltage line before the above
27 requirements have been met.
- 28 C. Confined Space Entry Program
- 29 1. Provide and follow approved Confined Space Entry Program in accordance with
30 OSHA requirements.
- 31 2. Confined Spaces include:
- 32 a. Manholes
- 33 b. All other confined spaces in accordance with OSHA's Permit Required for
34 Confined Spaces
- 35 D. Use of Explosives, Drop Weight, Etc.
- 36 1. When Contract Documents permit on the project the following will apply:
- 37 a. Public Notification
- 38 1) Submit notice to City and proof of adequate insurance coverage, 24 hours
39 prior to commencing.
- 40 2) Minimum 24-hour public notification in accordance with Section 01 31 13
- 41 E. Water Department Coordination
- 42 1. During the construction of this project, it will be necessary to deactivate, for a
43 period of time, existing lines. The Contractor shall be required to coordinate with
44 the Water Department to determine the best times for deactivating and activating
45 those lines.

- 1 2. Coordinate any event that will require connecting to or the operation of an existing
2 City water line system with the City's representative.
- 3 a. Coordination shall be in accordance with Section 33 12 25.
- 4 b. If needed, obtain a hydrant water meter from the Water Department for use
5 during the life of named project.
- 6 c. In the event that a water valve on an existing live system be turned off and on
7 to accommodate the construction of the project is required, coordinate this
8 activity through the appropriate City representative.
- 9 1) Do not operate water line valves of existing water system.
- 10 a) Failure to comply will render the Contractor in violation of Texas Penal
11 Code Title 7, Chapter 28.03 (Criminal Mischief) and the Contractor
12 will be prosecuted to the full extent of the law.
- 13 b) In addition, the Contractor will assume all liabilities and
14 responsibilities as a result of these actions.

15 F. Public Notification Prior to Beginning Construction

- 16 1. Prior to beginning construction on any block in the project, on a block by block
17 basis, prepare and deliver a notice or flyer of the pending construction to the front
18 door of each residence or business that will be impacted by construction. The notice
19 shall be prepared as follows:
- 20 a. Post notice or flyer 7 days prior to beginning any construction activity on each
21 block in the project area.
- 22 1) Prepare flyer on the Contractor's letterhead and include the following
23 information:
- 24 a) Name of Project
- 25 b) City Project No (CPN)
- 26 c) Scope of Project (i.e. type of construction activity)
- 27 d) Actual construction duration within the block
- 28 e) Name of the contractor's foreman and phone number
- 29 f) Name of the City's inspector and phone number
- 30 g) City's after-hours phone number
- 31 2) A sample of the 'pre-construction notification' flyer is attached as Exhibit
32 A.
- 33 3) Submit schedule showing the construction start and finish time for each
34 block of the project to the inspector.
- 35 4) Deliver flyer to the City Inspector for review prior to distribution.
- 36 b. No construction will be allowed to begin on any block until the flyer is
37 delivered to all residents of the block.

38 G. Public Notification of Temporary Water Service Interruption during Construction

- 39 1. In the event it becomes necessary to temporarily shut down water service to
40 residents or businesses during construction, prepare and deliver a notice or flyer of
41 the pending interruption to the front door of each affected resident.
- 42 2. Prepared notice as follows:
- 43 a. The notification or flyer shall be posted 24 hours prior to the temporary
44 interruption.
- 45 b. Prepare flyer on the contractor's letterhead and include the following
46 information:
- 47 1) Name of the project
- 48 2) City Project Number

- 1 3) Date of the interruption of service
- 2 4) Period the interruption will take place
- 3 5) Name of the contractor's foreman and phone number
- 4 6) Name of the City's inspector and phone number
- 5 c. A sample of the temporary water service interruption notification is attached as
- 6 Exhibit B.
- 7 d. Deliver a copy of the temporary interruption notification to the City inspector
- 8 for review prior to being distributed.
- 9 e. No interruption of water service can occur until the flyer has been delivered to
- 10 all affected residents and businesses.
- 11 f. Electronic versions of the sample flyers can be obtained from the Project
- 12 Construction Inspector.
- 13 H. Coordination with United States Army Corps of Engineers (USACE)
- 14 1. At locations in the Project where construction activities occur in areas where
- 15 USACE permits are required, meet all requirements set forth in each designated
- 16 permit.
- 17 I. Coordination within Railroad Permit Areas
- 18 1. At locations in the project where construction activities occur in areas where
- 19 railroad permits are required, meet all requirements set forth in each designated
- 20 railroad permit. This includes, but is not limited to, provisions for:
- 21 a. Flagmen
- 22 b. Inspectors
- 23 c. Safety training
- 24 d. Additional insurance
- 25 e. Insurance certificates
- 26 f. Other employees required to protect the right-of-way and property of the
- 27 Railroad Company from damage arising out of and/or from the construction of
- 28 the project. Proper utility clearance procedures shall be used in accordance
- 29 with the permit guidelines.
- 30 2. Obtain any supplemental information needed to comply with the railroad's
- 31 requirements.
- 32 J. Dust Control
- 33 1. Use acceptable measures to control dust at the Site.
- 34 a. If water is used to control dust, capture and properly dispose of waste water.
- 35 b. If wet saw cutting is performed, capture and properly dispose of slurry.
- 36 K. Employee Parking
- 37 1. Provide parking for employees at locations approved by the City.

- 1 **1.4 SUBMITTALS [NOT USED]**
- 2 **1.5 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**
- 3 **1.6 CLOSEOUT SUBMITTALS [NOT USED]**
- 4 **1.7 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**
- 5 **1.8 QUALITY ASSURANCE [NOT USED]**
- 6 **1.9 DELIVERY, STORAGE, AND HANDLING [NOT USED]**
- 7 **1.10 FIELD [SITE] CONDITIONS [NOT USED]**
- 8 **1.11 WARRANTY [NOT USED]**

- 9 **PART 2 - PRODUCTS [NOT USED]**

- 10 **PART 3 - EXECUTION [NOT USED]**

11 **END OF SECTION**

12

Revision Log		
DATE	NAME	SUMMARY OF CHANGE
8/31/2012	D. Johnson	1.3.B – Added requirement of compliance with Health and Safety Code, Title 9. Safety, Subtitle A. Public Safety, Chapter 752. High Voltage Overhead Lines.

13

EXHIBIT A

(To be printed on Contractor's Letterhead)

Date: _____

CPN No.: _____

Project Name:

Mapsco Location:

Limits of Construction:

NOTICE OF CONSTRUCTION

THIS IS TO INFORM YOU THAT UNDER A CONTRACT WITH THE CITY OF FORT WORTH, OUR COMPANY WILL WORK ON UTILITY LINES ON OR AROUND YOUR PROPERTY.

CONSTRUCTION WILL BEGIN APPROXIMATELY SEVEN DAYS FROM THE DATE OF THIS NOTICE.

IF YOU HAVE QUESTIONS ABOUT ACCESS, SECURITY, SAFETY OR ANY OTHER ISSUE, PLEASE CALL:

Mr. <CONTRACTOR'S SUPERINTENDENT> AT <TELEPHONE NO.>

OR

Mr. <CITY INSPECTOR> AT < TELEPHONE NO.>

AFTER 4:30 PM OR ON WEEKENDS, PLEASE CALL (817) 392 8306

PLEASE KEEP THIS FLYER HANDY WHEN YOU CALL

1

EXHIBIT B

2



Date: _____

DOE NO. XXXX
Project Name:

**NOTICE OF TEMPORARY WATER SERVICE
INTERRUPTION**

DUE TO UTILITY IMPROVEMENTS IN YOUR NEIGHBORHOOD, YOUR
WATER SERVICE WILL BE INTERRUPTED ON _____
BETWEEN THE HOURS OF _____ AND _____.

IF YOU HAVE QUESTIONS ABOUT THIS SHUT-OUT, PLEASE CALL:

MR. _____ AT _____
(CONTRACTORS SUPERINTENDENT) (TELEPHONE NUMBER)

OR

MR. _____ AT _____
(CITY INSPECTOR) (TELEPHONE NUMBER)

THIS INCONVENIENCE WILL BE AS SHORT AS POSSIBLE.

THANK YOU,

_____, CONTRACTOR

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SECTION 01 45 23
TESTING AND INSPECTION SERVICES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Testing and inspection services procedures and coordination
- B. Deviations from this City of Fort Worth Standard Specification
 - 1. None.
- C. Related Specification Sections include, but are not necessarily limited to:
 - 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
 - 2. Division 1 – General Requirements

1.2 PRICE AND PAYMENT PROCEDURES

- A. Measurement and Payment
 - 1. Work associated with this Item is considered subsidiary to the various Items bid. No separate payment will be allowed for this Item.
 - a. Contractor is responsible for performing, coordinating, and payment of all Quality Control testing.
 - b. City is responsible for performing and payment for first set of Quality Assurance testing.
 - 1) If the first Quality Assurance test performed by the City fails, the Contractor is responsible for payment of subsequent Quality Assurance testing until a passing test occurs.
 - a) Final acceptance will not be issued by City until all required payments for testing by Contractor have been paid in full.

1.3 REFERENCES [NOT USED]

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Testing
 - 1. Complete testing in accordance with the Contract Documents.
 - 2. Coordination
 - a. When testing is required to be performed by the City, notify City, sufficiently in advance, when testing is needed.
 - b. When testing is required to be completed by the Contractor, notify City, sufficiently in advance, that testing will be performed.
 - 3. Distribution of Testing Reports
 - a. Electronic Distribution
 - 1) Confirm development of Project directory for electronic submittals to be uploaded to City’s Buzzsaw site, or another external FTP site approved by the City.

- 1 2) Upload test reports to designated project directory and notify appropriate
- 2 City representatives via email of submittal posting.
- 3 3) Hard Copies
- 4 a) 1 copy for all submittals submitted to the Project Representative
- 5 b. Hard Copy Distribution (if required in lieu of electronic distribution)
- 6 1) Tests performed by City
- 7 a) Distribute 1 hard copy to the Contractor
- 8 2) Tests performed by the Contractor
- 9 a) Distribute 3 hard copies to City's Project Representative
- 10 4. Provide City's Project Representative with trip tickets for each delivered load of
- 11 Concrete or Lime material including the following information:
- 12 a. Name of pit
- 13 b. Date of delivery
- 14 c. Material delivered
- 15 B. Inspection
- 16 1. Inspection or lack of inspection does not relieve the Contractor from obligation to
- 17 perform work in accordance with the Contract Documents.

18 **1.5 SUBMITTALS [NOT USED]**

19 **1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**

20 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**

21 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**

22 **1.9 QUALITY ASSURANCE [NOT USED]**

23 **1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**

24 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**

25 **1.12 WARRANTY [NOT USED]**

26 **PART 2 - PRODUCTS [NOT USED]**

27 **PART 3 - EXECUTION [NOT USED]**

28 **END OF SECTION**

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Revision Log		
DATE	NAME	SUMMARY OF CHANGE

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SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Provide temporary facilities and controls needed for the Work including, but not necessarily limited to:
 - a. Temporary utilities
 - b. Sanitary facilities
 - c. Storage Sheds and Buildings
 - d. Dust control
 - e. Temporary fencing of the construction site
- B. Deviations from this City of Fort Worth Standard Specification
 - 1. Modified 1.2.A.1
 - 2. Added 1.2.A.2
 - 3. Added 1.4.C.7
- C. Related Specification Sections include, but are not necessarily limited to:
 - 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
 - 2. Division 1 – General Requirements

1.2 PRICE AND PAYMENT PROCEDURES

- A. Measurement and Payment
 - 1. **Unit Price** - Work associated with this Item is considered subsidiary to the various items bid. No separate payment will be allowed for this Item.
 - 2. **Lump Sum Price - Work associated with this Item is included in the total lump sum price.**

1.3 REFERENCES [NOT USED]

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Temporary Utilities
 - 1. Obtaining Temporary Service
 - a. Make arrangements with utility service companies for temporary services.
 - b. Abide by rules and regulations of utility service companies or authorities having jurisdiction.
 - c. Be responsible for utility service costs until Work is approved for Final Acceptance.
 - 1) Included are fuel, power, light, heat and other utility services necessary for execution, completion, testing and initial operation of Work.
 - 2. Water

- 1 a. Contractor to provide water required for and in connection with Work to be
2 performed and for specified tests of piping, equipment, devices or other use as
3 required for the completion of the Work.
- 4 b. Provide and maintain adequate supply of potable water for domestic
5 consumption by Contractor personnel and City's Project Representatives.
- 6 c. Coordination
- 7 1) Contact City 1 week before water for construction is desired
- 8 d. Contractor Payment for Construction Water
- 9 1) Obtain construction water meter from City for payment as billed by City's
10 established rates.
- 11 3. Electricity and Lighting
- 12 a. Provide and pay for electric powered service as required for Work, including
13 testing of Work.
- 14 1) Provide power for lighting, operation of equipment, or other use.
- 15 b. Electric power service includes temporary power service or generator to
16 maintain operations during scheduled shutdown.
- 17 4. Telephone
- 18 a. Provide emergency telephone service at Site for use by Contractor personnel
19 and others performing work or furnishing services at Site.
- 20 5. Temporary Heat and Ventilation
- 21 a. Provide temporary heat as necessary for protection or completion of Work.
- 22 b. Provide temporary heat and ventilation to assure safe working conditions.
- 23 B. Sanitary Facilities
- 24 1. Provide and maintain sanitary facilities for persons on Site.
- 25 a. Comply with regulations of State and local departments of health.
- 26 2. Enforce use of sanitary facilities by construction personnel at job site.
- 27 a. Enclose and anchor sanitary facilities.
- 28 b. No discharge will be allowed from these facilities.
- 29 c. Collect and store sewage and waste so as not to cause nuisance or health
30 problem.
- 31 d. Haul sewage and waste off-site at no less than weekly intervals and properly
32 dispose in accordance with applicable regulation.
- 33 3. Locate facilities near Work Site and keep clean and maintained throughout Project.
- 34 4. Remove facilities at completion of Project
- 35 C. Storage Sheds and Buildings
- 36 1. Provide adequately ventilated, watertight, weatherproof storage facilities with floor
37 above ground level for materials and equipment susceptible to weather damage.
- 38 2. Storage of materials not susceptible to weather damage may be on blocks off
39 ground.
- 40 3. Store materials in a neat and orderly manner.
- 41 a. Place materials and equipment to permit easy access for identification,
42 inspection and inventory.
- 43 4. Equip building with lockable doors and lighting, and provide electrical service for
44 equipment space heaters and heating or ventilation as necessary to provide storage
45 environments acceptable to specified manufacturers.

- 1 5. Fill and grade site for temporary structures to provide drainage away from
2 temporary and existing buildings.
- 3 6. Remove building from site prior to Final Acceptance.
- 4 7. **A field office is required for this project.**
- 5 D. Temporary Fencing
- 6 1. Provide and maintain for the duration or construction when required in contract
7 documents
- 8 E. Dust Control
- 9 1. Contractor is responsible for maintaining dust control through the duration of the
10 project.
- 11 a. Contractor remains on-call at all times
- 12 b. Must respond in a timely manner
- 13 F. Temporary Protection of Construction
- 14 1. Contractor or subcontractors are responsible for protecting Work from damage due
15 to weather.
- 16 **1.5 SUBMITTALS [NOT USED]**
- 17 **1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**
- 18 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**
- 19 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**
- 20 **1.9 QUALITY ASSURANCE [NOT USED]**
- 21 **1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**
- 22 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**
- 23 **1.12 WARRANTY [NOT USED]**
- 24 **PART 2 - PRODUCTS [NOT USED]**
- 25 **PART 3 - EXECUTION [NOT USED]**
- 26 **3.1 INSTALLERS [NOT USED]**
- 27 **3.2 EXAMINATION [NOT USED]**
- 28 **3.3 PREPARATION [NOT USED]**
- 29 **3.4 INSTALLATION**
- 30 A. Temporary Facilities
- 31 1. Maintain all temporary facilities for duration of construction activities as needed.

1 **3.5 [REPAIR] / [RESTORATION]**

2 **3.6 RE-INSTALLATION**

3 **3.7 FIELD [OR] SITE QUALITY CONTROL [NOT USED]**

4 **3.8 SYSTEM STARTUP [NOT USED]**

5 **3.9 ADJUSTING [NOT USED]**

6 **3.10 CLEANING [NOT USED]**

7 **3.11 CLOSEOUT ACTIVITIES**

8 A. Temporary Facilities

- 9 1. Remove all temporary facilities and restore area after completion of the Work, to a
10 condition equal to or better than prior to start of Work.

11 **3.12 PROTECTION [NOT USED]**

12 **3.13 MAINTENANCE [NOT USED]**

13 **3.14 ATTACHMENTS [NOT USED]**

14 **END OF SECTION**

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Revision Log		
DATE	NAME	SUMMARY OF CHANGE

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SECTION 01 55 26

STREET USE PERMIT AND MODIFICATIONS TO TRAFFIC CONTROL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Administrative procedures for:
 - a. Street Use Permit
 - b. Modification of approved traffic control
 - c. Removal of Street Signs
 - B. Deviations from this City of Fort Worth Standard Specification
 - 1. None.
 - C. Related Specification Sections include, but are not necessarily limited to:
 - 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
 - 2. Division 1 – General Requirements
 - 3. Section 34 71 13 – Traffic Control

1.2 PRICE AND PAYMENT PROCEDURES

- A. Measurement and Payment
 - 1. Work associated with this Item is considered subsidiary to the various Items bid. No separate payment will be allowed for this Item.

1.3 REFERENCES

- A. Reference Standards
 - 1. Reference standards cited in this specification refer to the current reference standard published at the time of the latest revision date logged at the end of this specification, unless a date is specifically cited.
 - 2. Texas Manual on Uniform Traffic Control Devices (TMUTCD).

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Traffic Control
 - 1. General
 - a. When traffic control plans are included in the Drawings, provide Traffic Control in accordance with Drawings and Section 34 71 13.
 - b. When traffic control plans are not included in the Drawings, prepare traffic control plans in accordance with Section 34 71 13 and submit to City for review.
 - 1) Allow minimum 10 working days for review of proposed Traffic Control.
- B. Street Use Permit
 - 1. Prior to installation of Traffic Control, a City Street Use Permit is required.
 - a. To obtain Street Use Permit, submit Traffic Control Plans to City Transportation and Public Works Department.

- 1) Allow a minimum of 5 working days for permit review.
- 2) Contractor's responsibility to coordinate review of Traffic Control plans for Street Use Permit, such that construction is not delayed.

C. Modification to Approved Traffic Control

1. Prior to installation traffic control:
 - a. Submit revised traffic control plans to City Department Transportation and Public Works Department.
 - 1) Revise Traffic Control plans in accordance with Section 34 71 13.
 - 2) Allow minimum 5 working days for review of revised Traffic Control.
 - 3) It is the Contractor's responsibility to coordinate review of Traffic Control plans for Street Use Permit, such that construction is not delayed.

D. Removal of Street Sign

1. If it is determined that a street sign must be removed for construction, then contact City Transportation and Public Works Department, Signs and Markings Division to remove the sign.

E. Temporary Signage

1. In the case of regulatory signs, replace permanent sign with temporary sign meeting requirements of the latest edition of the Texas Manual on Uniform Traffic Control Devices (MUTCD).
2. Install temporary sign before the removal of permanent sign.
3. When construction is complete, to the extent that the permanent sign can be reinstalled, contact the City Transportation and Public Works Department, Signs and Markings Division, to reinstall the permanent sign.

F. Traffic Control Standards

1. Traffic Control Standards can be found on the City's Buzzsaw website.

1.5 SUBMITTALS [NOT USED]

1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]

1.7 CLOSEOUT SUBMITTALS [NOT USED]

1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]

1.9 QUALITY ASSURANCE [NOT USED]

1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]

1.11 FIELD [SITE] CONDITIONS [NOT USED]

1.12 WARRANTY [NOT USED]

PART 2 - PRODUCTS [NOT USED]

PART 3 - EXECUTION [NOT USED]

END OF SECTION

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Revision Log		
DATE	NAME	SUMMARY OF CHANGE

2

1 **SECTION 01 57 13**
2 **STORM WATER POLLUTION PREVENTION**

3 **PART 1 - GENERAL**

4 **1.1 SUMMARY**

- 5 A. Section Includes:
- 6 1. Procedures for Storm Water Pollution Prevention Plans
- 7 B. Deviations from this City of Fort Worth Standard Specification
- 8 1. None.
- 9 C. Related Specification Sections include, but are not necessarily limited to:
- 10 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
- 11 2. Division 1 – General Requirements
- 12 3. Section 31 25 00 – Erosion and Sediment Control

13 **1.2 PRICE AND PAYMENT PROCEDURES**

- 14 A. Measurement and Payment
- 15 1. Construction Activities resulting in less than 1 acre of disturbance
- 16 a. Work associated with this Item is considered subsidiary to the various Items
- 17 bid. No separate payment will be allowed for this Item.
- 18 2. Construction Activities resulting in greater than 1 acre of disturbance
- 19 a. Measurement and Payment shall be in accordance with Section 31 25 00.

20 **1.3 REFERENCES**

- 21 A. Abbreviations and Acronyms
- 22 1. Notice of Intent: NOI
- 23 2. Notice of Termination: NOT
- 24 3. Storm Water Pollution Prevention Plan: SWPPP
- 25 4. Texas Commission on Environmental Quality: TCEQ
- 26 5. Notice of Change: NOC
- 27 A. Reference Standards
- 28 1. Reference standards cited in this Specification refer to the current reference
- 29 standard published at the time of the latest revision date logged at the end of this
- 30 Specification, unless a date is specifically cited.
- 31 2. Integrated Storm Management (iSWM) Technical Manual for Construction
- 32 Controls

33 **1.4 ADMINISTRATIVE REQUIREMENTS**

- 34 A. General
- 35 1. Contractor is responsible for resolution and payment of any fines issued associated
- 36 with compliance to Stormwater Pollution Prevention Plan.

1 B. Construction Activities resulting in:

- 2 1. Less than 1 acre of disturbance
3 a. Provide erosion and sediment control in accordance with Section 31 25 00 and
4 Drawings.
5 2. 1 to less than 5 acres of disturbance
6 a. Texas Pollutant Discharge Elimination System (TPDES) General Construction
7 Permit is required
8 b. Complete SWPPP in accordance with TCEQ requirements
9 1) TCEQ Small Construction Site Notice Required under general permit
10 TXR150000
11 a) Sign and post at job site
12 b) Prior to Preconstruction Meeting, send 1 copy to City Department of
13 Transportation and Public Works, Environmental Division, (817) 392-
14 6088.
15 2) Provide erosion and sediment control in accordance with:
16 a) Section 31 25 00
17 b) The Drawings
18 c) TXR150000 General Permit
19 d) SWPPP
20 e) TCEQ requirements
21 3. 5 acres or more of Disturbance
22 a. Texas Pollutant Discharge Elimination System (TPDES) General Construction
23 Permit is required
24 b. Complete SWPPP in accordance with TCEQ requirements
25 1) Prepare a TCEQ NOI form and submit to TCEQ along with required fee
26 a) Sign and post at job site
27 b) Send copy to City Department of Transportation and Public Works,
28 Environmental Division, (817) 392-6088.
29 2) TCEQ Notice of Change required if making changes or updates to NOI
30 3) Provide erosion and sediment control in accordance with:
31 a) Section 31 25 00
32 b) The Drawings
33 c) TXR150000 General Permit
34 d) SWPPP
35 e) TCEQ requirements
36 4) Once the project has been completed and all the closeout requirements of
37 TCEQ have been met a TCEQ Notice of Termination can be submitted.
38 a) Send copy to City Department of Transportation and Public Works,
39 Environmental Division, (817) 392-6088.

40 **1.5 SUBMITTALS**

41 A. SWPPP

- 42 1. Submit in accordance with Section 01 33 00, except as stated herein.
43 a. Prior to the Preconstruction Meeting, submit a draft copy of SWPPP to the City
44 as follows:
45 1) 1 copy to the City Project Manager
46 a) City Project Manager will forward to the City Department of
47 Transportation and Public Works, Environmental Division for review

1 B. Modified SWPPP
2 1. If the SWPPP is revised during construction, resubmit modified SWPPP to the City
3 in accordance with Section 01 33 00.

4 **1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**

5 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**

6 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**

7 **1.9 QUALITY ASSURANCE [NOT USED]**

8 **1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**

9 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**

10 **1.12 WARRANTY [NOT USED]**

11 **PART 2 - PRODUCTS [NOT USED]**

12 **PART 3 - EXECUTION [NOT USED]**

13 **END OF SECTION**

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Revision Log		
DATE	NAME	SUMMARY OF CHANGE

15

1 **SECTION 01 60 00**
2 **PRODUCT REQUIREMENTS**

3 **PART 1 - GENERAL**

4 **1.1 SUMMARY**

5 A. Section Includes:

- 6 1. References for Product Requirements and City Standard Products List

7 B. Deviations from this City of Fort Worth Standard Specification

- 8 1. None.

9 C. Related Specification Sections include, but are not necessarily limited to:

- 10 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
11 2. Division 1 – General Requirements

12 **1.2 PRICE AND PAYMENT PROCEDURES [NOT USED]**

13 **1.3 REFERENCES [NOT USED]**

14 **1.4 ADMINISTRATIVE REQUIREMENTS**

15 A. A list of City approved products for use is located on Buzzsaw as follows:

- 16 1. Resources\02 - Construction Documents\Standard Products List

17 B. Only products specifically included on City's Standard Product List in these Contract
18 Documents shall be allowed for use on the Project.

- 19 1. Any subsequently approved products will only be allowed for use upon specific
20 approval by the City.

21 C. Any specific product requirements in the Contract Documents supersede similar
22 products included on the City's Standard Product List.

- 23 1. The City reserves the right to not allow products to be used for certain projects even
24 though the product is listed on the City's Standard Product List.

25 D. Although a specific product is included on City's Standard Product List, not all
26 products from that manufacturer are approved for use, including but not limited to, that
27 manufacturer's standard product.

28 E. See Section 01 33 00 for submittal requirements of Product Data included on City's
29 Standard Product List.

30 **1.5 SUBMITTALS [NOT USED]**

31 **1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**

32 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**

33 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**

34 **1.9 QUALITY ASSURANCE [NOT USED]**

1 **1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**

2 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**

3 **1.12 WARRANTY [NOT USED]**

4 **PART 2 - PRODUCTS [NOT USED]**

5 **PART 3 - EXECUTION [NOT USED]**

6 **END OF SECTION**

7

Revision Log		
DATE	NAME	SUMMARY OF CHANGE
10/12/12	D. Johnson	Modified Location of City's Standard Product List

8

1 **SECTION 01 66 00**
2 **PRODUCT STORAGE AND HANDLING REQUIREMENTS**

3 **PART 1 - GENERAL**

4 **1.1 SUMMARY**

- 5 A. Section Includes:
- 6 1. Scheduling of product delivery
 - 7 2. Packaging of products for delivery
 - 8 3. Protection of products against damage from:
 - 9 a. Handling
 - 10 b. Exposure to elements or harsh environments
 - 11 B. Deviations from this City of Fort Worth Standard Specification
 - 12 1. None.
 - 13 C. Related Specification Sections include, but are not necessarily limited to:
 - 14 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
 - 15 2. Division 1 – General Requirements

16 **1.2 PRICE AND PAYMENT PROCEDURES**

- 17 A. Measurement and Payment
- 18 1. Work associated with this Item is considered subsidiary to the various Items bid.
19 No separate payment will be allowed for this Item.

20 **1.3 REFERENCES [NOT USED]**

21 **1.4 ADMINISTRATIVE REQUIREMENTS [NOT USED]**

22 **1.5 SUBMITTALS [NOT USED]**

23 **1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**

24 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**

25 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**

26 **1.9 QUALITY ASSURANCE [NOT USED]**

27 **1.10 DELIVERY AND HANDLING**

- 28 A. Delivery Requirements
- 29 1. Schedule delivery of products or equipment as required to allow timely installation
30 and to avoid prolonged storage.
 - 31 2. Provide appropriate personnel and equipment to receive deliveries.
 - 32 3. Delivery trucks will not be permitted to wait extended periods of time on the Site
33 for personnel or equipment to receive the delivery.

- 1 4. Deliver products or equipment in manufacturer's original unbroken cartons or other
2 containers designed and constructed to protect the contents from physical or
3 environmental damage.
- 4 5. Clearly and fully mark and identify as to manufacturer, item and installation
5 location.
- 6 6. Provide manufacturer's instructions for storage and handling.
- 7 B. Handling Requirements
- 8 1. Handle products or equipment in accordance with these Contract Documents and
9 manufacturer's recommendations and instructions.
- 10 C. Storage Requirements
- 11 1. Store materials in accordance with manufacturer's recommendations and
12 requirements of these Specifications.
- 13 2. Make necessary provisions for safe storage of materials and equipment.
14 a. Place loose soil materials and materials to be incorporated into Work to prevent
15 damage to any part of Work or existing facilities and to maintain free access at
16 all times to all parts of Work and to utility service company installations in
17 vicinity of Work.
- 18 3. Keep materials and equipment neatly and compactly stored in locations that will
19 cause minimum inconvenience to other contractors, public travel, adjoining owners,
20 tenants and occupants.
21 a. Arrange storage to provide easy access for inspection.
- 22 4. Restrict storage to areas available on construction site for storage of material and
23 equipment as shown on Drawings, or approved by City's Project Representative.
- 24 5. Provide off-site storage and protection when on-site storage is not adequate.
25 a. Provide addresses of and access to off-site storage locations for inspection by
26 City's Project Representative.
- 27 6. Do not use lawns, grass plots or other private property for storage purposes without
28 written permission of owner or other person in possession or control of premises.
- 29 7. Store in manufacturers' unopened containers.
- 30 8. Neatly, safely and compactly stack materials delivered and stored along line of
31 Work to avoid inconvenience and damage to property owners and general public
32 and maintain at least 3 feet from fire hydrant.
- 33 9. Keep public and private driveways and street crossings open.
- 34 10. Repair or replace damaged lawns, sidewalks, streets or other improvements to
35 satisfaction of City's Project Representative.
36 a. Total length which materials may be distributed along route of construction at
37 one time is 1,000 linear feet, unless otherwise approved in writing by City's
38 Project Representative.

1 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**

2 **1.12 WARRANTY [NOT USED]**

3 **PART 2 - PRODUCTS [NOT USED]**

4 **PART 3 - EXECUTION**

5 **3.1 INSTALLERS [NOT USED]**

6 **3.2 EXAMINATION [NOT USED]**

7 **3.3 PREPARATION [NOT USED]**

8 **3.4 ERECTION [NOT USED]**

9 **3.5 REPAIR / RESTORATION [NOT USED]**

10 **3.6 RE-INSTALLATION [NOT USED]**

11 **3.7 FIELD [OR] SITE QUALITY CONTROL**

12 A. Tests and Inspections

13 1. Inspect all products or equipment delivered to the site prior to unloading.

14 B. Non-Conforming Work

15 1. Reject all products or equipment that are damaged, used or in any other way
16 unsatisfactory for use on the project.

17 **3.8 SYSTEM STARTUP [NOT USED]**

18 **3.9 ADJUSTING [NOT USED]**

19 **3.10 CLEANING [NOT USED]**

20 **3.11 CLOSEOUT ACTIVITIES [NOT USED]**

21 **3.12 PROTECTION**

22 A. Protect all products or equipment in accordance with manufacturer's written directions.

23 B. Store products or equipment in location to avoid physical damage to items while in
24 storage.

25 C. Protect equipment from exposure to elements and keep thoroughly dry if required by
26 the manufacturer.

27 **3.13 MAINTENANCE [NOT USED]**

28 **3.14 ATTACHMENTS [NOT USED]**

29 **END OF SECTION**

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1 **SECTION 01 70 00**
2 **MOBILIZATION AND REMOBILIZATION**

3 **PART 1 - GENERAL**

4 **1.1 SUMMARY**

5 A. Section Includes:

6 1. Mobilization and Demobilization

7 a. Mobilization

- 8 1) Transportation of Contractor's personnel, equipment, and operating supplies
9 to the Site
10 2) Establishment of necessary general facilities for the Contractor's operation
11 at the Site
12 3) Premiums paid for performance and payment bonds
13 4) Transportation of Contractor's personnel, equipment, and operating supplies
14 to another location within the designated Site
15 5) Relocation of necessary general facilities for the Contractor's operation
16 from 1 location to another location on the Site.

17 b. Demobilization

- 18 1) Transportation of Contractor's personnel, equipment, and operating supplies
19 away from the Site including disassembly
20 2) Site Clean-up
21 3) Removal of all buildings and/or other facilities assembled at the Site for this
22 Contract

- 23 c. Mobilization and Demobilization do not include activities for specific items of
24 work that are for which payment is provided elsewhere in the contract.

25 2. Remobilization

26 a. Remobilization for Suspension of Work specifically required in the Contract
27 Documents or as required by City includes:

28 1) Demobilization

- 29 a) Transportation of Contractor's personnel, equipment, and operating
30 supplies from the Site including disassembly or temporarily securing
31 equipment, supplies, and other facilities as designated by the Contract
32 Documents necessary to suspend the Work.

- 33 b) Site Clean-up as designated in the Contract Documents

34 2) Remobilization

- 35 a) Transportation of Contractor's personnel, equipment, and operating
36 supplies to the Site necessary to resume the Work.

- 37 b) Establishment of necessary general facilities for the Contractor's
38 operation at the Site necessary to resume the Work.

39 3) No Payments will be made for:

- 40 a) Mobilization and Demobilization from one location to another on the
41 Site in the normal progress of performing the Work.

- 42 b) Stand-by or idle time

- 43 c) Lost profits

44 3. Mobilizations and Demobilization for Miscellaneous Projects

- 1 a. Mobilization and Demobilization
- 2 1) Mobilization shall consist of the activities and cost on a Work Order basis
- 3 necessary for:
- 4 a) Transportation of Contractor's personnel, equipment, and operating
- 5 supplies to the Site for the issued Work Order.
- 6 b) Establishment of necessary general facilities for the Contractor's
- 7 operation at the Site for the issued Work Order
- 8 2) Demobilization shall consist of the activities and cost necessary for:
- 9 a) Transportation of Contractor's personnel, equipment, and operating
- 10 supplies from the Site including disassembly for each issued Work
- 11 Order
- 12 b) Site Clean-up for each issued Work Order
- 13 c) Removal of all buildings or other facilities assembled at the Site for
- 14 each Work Order
- 15 b. Mobilization and Demobilization do not include activities for specific items of
- 16 work for which payment is provided elsewhere in the contract.
- 17 4. Emergency Mobilizations and Demobilization for Miscellaneous Projects
- 18 a. A Mobilization for Miscellaneous Projects when directed by the City and the
- 19 mobilization occurs within 24 hours of the issuance of the Work Order.
- 20 B. Deviations from this City of Fort Worth Standard Specification
- 21 1. None.
- 22 C. Related Specification Sections include, but are not necessarily limited to:
- 23 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
- 24 2. Division 1 – General Requirements

25 1.2 PRICE AND PAYMENT PROCEDURES

- 26 A. Measurement and Payment [Consult City Department/Division for direction on if
- 27 Mobilization pay item to be included or the item should be subsidiary. Include the
- 28 appropriate Section 1.2 A. 1.]
- 29 1. Mobilization and Demobilization
- 30 a. Measure
- 31 1) This Item is considered subsidiary to the various Items bid.
- 32 b. Payment
- 33 1) The work performed and materials furnished in accordance with this Item
- 34 are subsidiary to the various Items bid and no other compensation will be
- 35 allowed.
- 36 OR
- 37 1. Mobilization and Demobilization
- 38 a. Measure
- 39 1) This Item will be measured by the lump sum or each as the work
- 40 progresses. Mobilization is calculated on the base bid only and will not be
- 41 paid for separately on any additive alternate items added to the Contract.
- 42 2) Demobilization shall be considered subsidiary to the various bid items.
- 43 b. Payment
- 44 1) For this Item, the adjusted Contract amount will be calculated as the total
- 45 Contract amount less the lump sum for mobilization. Mobilization shall be
- 46 made in partial payments as follows:

- 1 a) When 1% of the adjusted Contract amount for construction Items is
2 earned, 50% of the mobilization lump sum bid or *[Insert ½ the maximum*
3 *allowed]* % of the total Contract amount, whichever is less, will be paid.
4 b) When 5% of the adjusted Contract amount for construction Items is
5 earned, 75% of the mobilization lump sum bid or *[Insert the maximum*
6 *allowed]*% of the total Contract amount, whichever is less, will be paid.
7 Previous payments under the Item will be deducted from this amount.
8 c) When 10% of the adjusted Contract amount for construction Items is
9 earned, 100% of the mobilization lump sum bid or *[Insert the maximum*
10 *allowed]*% of the total Contract amount, whichever is less, will be paid.
11 Previous payments under the Item will be deducted from this amount.
12 d) **A bid containing a total for “Mobilization” in excess of *[Insert***
13 ***maximum allowed]* % of total contract shall be considered unbalanced**
14 **and a cause for consideration of rejection.**
15 e) **The Lump Sum bid for “Mobilization – Paving/Drainage” shall NOT**
16 **include any cost or sum for mobilization items associated with**
17 **water/sewer items. Those costs shall be included in the various**
18 **water/sewer bid Items. Otherwise the bid Items shall be considered**
19 **unbalanced and a cause for consideration of rejection.**
20 f) **The Lump Sum bid for “Mobilization – Paving” shall NOT include**
21 **any cost or sum for mobilization items associated with drainage items.**
22 **Those costs shall be included in the “Mobilization – Drainage” Lump**
23 **Sum bid Item. Otherwise the bid Items shall be considered unbalanced**
24 **and a cause for consideration of rejection.**
25 g) **The Lump Sum bid for “Mobilization – Drainage” shall NOT**
26 **include any cost or sum for mobilization items associated with paving**
27 **items. Those costs shall be included in the “Mobilization – Paving”**
28 **Lump Sum bid Item. Otherwise the bid Items shall be considered**
29 **unbalanced and a cause for consideration of rejection.**
30 2) The work performed and materials furnished for demobilization in
31 accordance with this Item are subsidiary to the various Items bid and no
32 other compensation will be allowed.

33 ***[OR]***

- 34 1. Mobilization and Demobilization *[If multiple “Mobilization” bid items are used*
35 *due to different funding (ex. Water and Sewer and Paving and/or Drainage) –*
36 *Provide detail of each bid item - Consultant to provide detail for each bid item*
37 *(typically Water/Sewer will be subsidiary and Paving/Drainage will be LS, with*
38 *possibly separate bid items for Paving and Drainage due to funding).]*
39 a. Measure
40 1) This item for Water/Sewer improvements is considered subsidiary to the
41 various Items bid.
42 2) “Mobilization – Paving,” “Mobilization – Drainage,” and/or “Mobilization
43 – Paving/Drainage” will be measured by the lump sum or each as the work
44 progresses. Mobilization is calculated on the base bid only and will not be
45 paid for separately on any additive alternate items added to the Contract.
46 3) Demobilization shall be considered subsidiary to the various bid items.
47 b. Payment

- 1) The work performed and materials furnished in accordance with this Item for Water/Sewer improvements are subsidiary to the various Items bid and no other compensation will be allowed.
 - 2) “Mobilization – Paving,” “Mobilization – Drainage,” and/or “Mobilization – Paving/Drainage”, the adjusted Contract amount will be calculated as the total Contract amount for paving, drainage or paving/drainage improvements less the lump sum for mobilization. Mobilization shall be made in partial payments as follows:
 - a) When 1% of the adjusted Contract amount for construction Items is earned, 50% of the mobilization lump sum bid or *[Insert ½ the maximum allowed]* % of the total paving, drainage, or paving/drainage Contract amount, whichever is less, will be paid.
 - b) When 5% of the adjusted Contract amount for construction Items is earned, 75% of the mobilization lump sum bid or *[Insert the maximum allowed]*% of the total paving, drainage, or paving/drainage Contract amount, whichever is less, will be paid. Previous payments under the Item will be deducted from this amount.
 - c) When 10% of the adjusted Contract amount for construction Items is earned, 100% of the mobilization lump sum bid or *[Insert the maximum allowed]*% of the total paving, drainage, or paving/drainage Contract amount, whichever is less, will be paid. Previous payments under the Item will be deducted from this amount.
 - d) **A bid containing a total for “Mobilization” in excess of *[Insert maximum allowed]* % of total paving, drainage or paving/drainage contract shall be considered unbalanced and a cause for consideration of rejection.**
 - 3) The work performed and materials furnished for demobilization in accordance with this Item are subsidiary to the various Items bid and no other compensation will be allowed.
2. Remobilization for suspension of Work as specifically required in the Contract Documents
 - a. Measurement
 - 1) Measurement for this Item shall be per each remobilization performed.
 - b. Payment
 - 1) 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 per each “Specified Remobilization” in accordance with Contract Documents.
 - c. The price shall include:
 - 1) Demobilization as described in Section 1.1.A.2.a.1)
 - 2) Remobilization as described in Section 1.1.A.2.a.2)
 - d. No payments will be made for standby, idle time, or lost profits associated this Item.
 3. Remobilization for suspension of Work as required by City
 - a. Measurement and Payment
 - 1) This shall be submitted as a Contract Claim in accordance with Article 10 of Section 00 72 00.
 - 2) No payments will be made for standby, idle time, or lost profits associated with this Item.

- 1 4. Mobilizations and Demobilizations for Miscellaneous Projects
2 a. Measurement
3 1) Measurement for this Item shall be for each Mobilization and
4 Demobilization required by the Contract Documents
5 b. Payment
6 1) The Work performed and materials furnished in accordance with this Item
7 and measured as provided under “Measurement” will be paid for at the unit
8 price per each “Work Order Mobilization” in accordance with Contract
9 Documents. Demobilization shall be considered subsidiary to mobilization
10 and shall not be paid for separately.
11 c. The price shall include:
12 1) Mobilization as described in Section 1.1.A.3.a.1)
13 2) Demobilization as described in Section 1.1.A.3.a.2)
14 d. No payments will be made for standby, idle time, or lost profits associated this
15 Item.
- 16 5. Emergency Mobilizations and Demobilizations for Miscellaneous Projects
17 a. Measurement
18 1) Measurement for this Item shall be for each Mobilization and
19 Demobilization required by the Contract Documents
20 b. Payment
21 1) The Work performed and materials furnished in accordance with this Item
22 and measured as provided under “Measurement” will be paid for at the unit
23 price per each “Work Order Emergency Mobilization” in accordance with
24 Contract Documents. Demobilization shall be considered subsidiary to
25 mobilization and shall not be paid for separately.
26 c. The price shall include
27 1) Mobilization as described in Section 1.1.A.4.a)
28 2) Demobilization as described in Section 1.1.A.3.a.2)
29 d. No payments will be made for standby, idle time, or lost profits associated this
30 Item.

31 **1.3 REFERENCES [NOT USED]**

32 **1.4 ADMINISTRATIVE REQUIREMENTS [NOT USED]**

33 **1.5 SUBMITTALS [NOT USED]**

34 **1.6 INFORMATIONAL SUBMITTALS [NOT USED]**

35 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**

36 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**

37 **1.9 QUALITY ASSURANCE [NOT USED]**

38 **1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**

39 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**

40 **1.12 WARRANTY [NOT USED]**

1 **PART 2 - PRODUCTS [NOT USED]**

2 **PART 3 - EXECUTION [NOT USED]**

3 **END OF SECTION**

4

Revision Log		
DATE	NAME	SUMMARY OF CHANGE
11/22/16	Michael Owen	1.2 Price and Payment Procedures - Revised specification, including blue text, to make specification flexible for either subsidiary or paid bid item for Mobilization.

5

1 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**

2 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**

3 **1.9 QUALITY ASSURANCE**

4 A. Construction Staking

5 **1. *Staking is provided by and paid for by the Developer.***

6 2. Coordination

- 7 a. Contact ***Developer's Project*** Representative at least 2 weeks in advance for
8 scheduling of Construction Staking.
9 b. It is the Contractor's responsibility to coordinate staking such that construction
10 activities are not delayed or negatively impacted.

11 3. General

- 12 a. Contractor is responsible for preserving and maintaining stakes furnished by
13 ***Developer's Surveyor.***
14 b. If in the opinion of the City or ***Developer,*** a sufficient number of stakes or
15 markings have been lost, destroyed or disturbed, by Contractor's neglect, such
16 that the contracted Work cannot take place, then the Contractor will be required
17 to pay the ***Developer's Surveyor*** for new staking with a 25 percent markup. The
18 cost for staking will be deducted from the payment due to the Contractor for the
19 Project.

20 B. Construction Survey

21 1. Construction Survey will be performed by the ***Developer's Surveyor.***

22 2. Coordination

- 23 a. Contractor to verify that control data established in the design survey remains
24 intact.
25 b. Coordinate with the City/***Developer*** prior to field investigation to determine
26 which horizontal and vertical control data will be required for construction
27 survey.
28 c. It is the Contractor's responsibility to coordinate Construction Survey such that
29 construction activities are not delayed or negatively impacted.
30 d. Notify City/***Developer*** if any control data needs to be restored or replaced due
31 to damage caused during construction operations.
32 1) ***Developer's Surveyor*** shall perform replacements and/or restorations.

33 3. General

- 34 a. Construction survey will be performed in order to maintain complete and
35 accurate logs of control and survey work as it progresses for Project Records.
36 b. The Contractor will need to ensure coordination is maintained with the
37 City/***Developer's Surveyor*** to perform construction survey to obtain
38 construction features, including but not limited to the following:
39 1) All Utility Lines
40 a) Rim and flowline elevations and coordinates for each manhole or
41 junction structure
42 2) Water Lines
43 a) Top of pipe elevations and coordinates for waterlines at the following
44 locations:
45 (1) Every 250 linear feet

- 1 (2) Horizontal and vertical points of inflection, curvature, etc. (All
- 2 Fittings)
- 3 (3) Cathodic protection test stations
- 4 (4) Sampling stations
- 5 (5) Meter boxes/vaults (All sizes)
- 6 (6) Fire lines
- 7 (7) Fire hydrants
- 8 (8) Gate valves
- 9 (9) Plugs, stubouts, dead-end lines
- 10 (10) Air Release valves (Manhole rim and vent pipe)
- 11 (11) Blow off valves (Manhole rim and valve lid)
- 12 (12) Pressure plane valves
- 13 (13) Cleaning wyes
- 14 (14) Casing pipe (each end)
- 15 b) Storm Sewer
- 16 (1) Top of pipe elevations and coordinates at the following locations:
- 17 (a) Every 250 linear feet
- 18 (b) Horizontal and vertical points of inflection, curvature, etc.
- 19 c) Sanitary Sewer
- 20 (1) Top of pipe elevations and coordinates for sanitary sewer lines at
- 21 the following locations:
- 22 (a) Every 250 linear feet
- 23 (b) Horizontal and vertical points of inflection, curvature, etc.
- 24 (c) Cleanouts
- 25 c. Construction survey will be performed in order to maintain complete and
- 26 accurate logs of control and survey work associated with meeting or exceeding
- 27 the line and grade required by these Specifications.
- 28 d. The Contractor will need to ensure coordination is maintained with the
- 29 City/*Developers Surveyor* to perform construction survey and to verify control
- 30 data, including but not limited to the following:
- 31 1) Established benchmarks and control points provided for the Contractor's
- 32 use are accurate
- 33 2) Benchmarks were used to furnish and maintain all reference lines and
- 34 grades for tunneling
- 35 3) Lines and grades were used to establish the location of the pipe
- 36 4) Submit to the City copies of field notes used to establish all lines and
- 37 grades and allow the City to check guidance system setup prior to
- 38 beginning each tunneling drive.
- 39 5) Provide access for the City to verify the guidance system and the line and
- 40 grade of the carrier pipe on a daily basis.
- 41 6) The Contractor remains fully responsible for the accuracy of the work and
- 42 the correction of it, as required.
- 43 7) Monitor line and grade continuously during construction.
- 44 8) Record deviation with respect to design line and grade once at each pipe
- 45 joint and submit daily records to City.
- 46 9) If the installation does not meet the specified tolerances, immediately notify
- 47 the City and correct the installation in accordance with the Contract
- 48 Documents.

49 **1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**

1 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**

2 **1.12 WARRANTY [NOT USED]**

3 **PART 2 - PRODUCTS [NOT USED]**

4 **PART 3 - EXECUTION**

5 **3.1 INSTALLERS [NOT USED]**

6 **3.2 EXAMINATION [NOT USED]**

7 **3.3 PREPARATION [NOT USED]**

8 **3.4 APPLICATION**

9 **3.5 REPAIR / RESTORATION [NOT USED]**

10 **3.6 RE-INSTALLATION [NOT USED]**

11 **3.7 FIELD [or] SITE QUALITY CONTROL**

12 A. It is the Contractor's responsibility to maintain all stakes and control data placed by the
13 City in accordance with this Specification.

14 B. Do not change or relocate stakes or control data without approval from the City.

15 **3.8 SYSTEM STARTUP [NOT USED]**

16 **3.9 ADJUSTING [NOT USED]**

17 **3.10 CLEANING [NOT USED]**

18 **3.11 CLOSEOUT ACTIVITIES [NOT USED]**

19 **3.12 PROTECTION [NOT USED]**

20 **3.13 MAINTENANCE [NOT USED]**

21 **3.14 ATTACHMENTS [NOT USED]**

22 **END OF SECTION**

23

Revision Log		
DATE	NAME	SUMMARY OF CHANGE
8/31/2012	D. Johnson	

24

1 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**

2 **1.12 WARRANTY [NOT USED]**

3 **PART 2 - PRODUCTS**

4 **2.1 OWNER-FURNISHED [OR] OWNER-SUPPLIED PRODUCTS [NOT USED]**

5 **2.2 MATERIALS**

6 A. Cleaning Agents

7 1. Compatible with surface being cleaned

8 2. New and uncontaminated

9 3. For manufactured surfaces

10 a. Material recommended by manufacturer

11 **2.3 ACCESSORIES [NOT USED]**

12 **2.4 SOURCE QUALITY CONTROL [NOT USED]**

13 **PART 3 - EXECUTION**

14 **3.1 INSTALLERS [NOT USED]**

15 **3.2 EXAMINATION [NOT USED]**

16 **3.3 PREPARATION [NOT USED]**

17 **3.4 APPLICATION [NOT USED]**

18 **3.5 REPAIR / RESTORATION [NOT USED]**

19 **3.6 RE-INSTALLATION [NOT USED]**

20 **3.7 FIELD [OR] SITE QUALITY CONTROL [NOT USED]**

21 **3.8 SYSTEM STARTUP [NOT USED]**

22 **3.9 ADJUSTING [NOT USED]**

23 **3.10 CLEANING**

24 A. General

25 1. Prevent accumulation of wastes that create hazardous conditions.

26 2. Conduct cleaning and disposal operations to comply with laws and safety orders of
27 governing authorities.

28 3. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in
29 storm or sanitary drains or sewers.

30 4. Dispose of degradable debris at an approved solid waste disposal site.

31 5. Dispose of nondegradable debris at an approved solid waste disposal site or in an
32 alternate manner approved by City and regulatory agencies.

- 1 6. Handle materials in a controlled manner with as few handlings as possible.
- 2 7. Thoroughly clean, sweep, wash and polish all Work and equipment associated with
- 3 this project.
- 4 8. Remove all signs of temporary construction and activities incidental to construction
- 5 of required permanent Work.
- 6 9. If project is not cleaned to the satisfaction of the City, the City reserves the right to
- 7 have the cleaning completed at the expense of the Contractor.
- 8 10. Do not burn on-site.
- 9 B. Intermediate Cleaning during Construction
- 10 1. Keep Work areas clean so as not to hinder health, safety or convenience of
- 11 personnel in existing facility operations.
- 12 2. At maximum weekly intervals, dispose of waste materials, debris and rubbish.
- 13 3. Confine construction debris daily in strategically located container(s):
- 14 a. Cover to prevent blowing by wind
- 15 b. Store debris away from construction or operational activities
- 16 c. Haul from site at a minimum of once per week
- 17 4. Vacuum clean interior areas when ready to receive finish painting.
- 18 a. Continue vacuum cleaning on an as-needed basis, until Final Acceptance.
- 19 5. Prior to storm events, thoroughly clean site of all loose or unsecured items, which
- 20 may become airborne or transported by flowing water during the storm.
- 21 C. Interior Final Cleaning
- 22 1. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels and other
- 23 foreign materials from sight-exposed surfaces.
- 24 2. Wipe all lighting fixture reflectors, lenses, lamps and trims clean.
- 25 3. Wash and shine glazing and mirrors.
- 26 4. Polish glossy surfaces to a clear shine.
- 27 5. Ventilating systems
- 28 a. Clean permanent filters and replace disposable filters if units were operated
- 29 during construction.
- 30 b. Clean ducts, blowers and coils if units were operated without filters during
- 31 construction.
- 32 6. Replace all burned out lamps.
- 33 7. Broom clean process area floors.
- 34 8. Mop office and control room floors.
- 35 D. Exterior (Site or Right of Way) Final Cleaning
- 36 1. Remove trash and debris containers from site.
- 37 a. Re-seed areas disturbed by location of trash and debris containers in accordance
- 38 with Section 32 92 13.
- 39 2. Sweep roadway to remove all rocks, pieces of asphalt, concrete or any other object
- 40 that may hinder or disrupt the flow of traffic along the roadway.
- 41 3. Clean any interior areas including, but not limited to, vaults, manholes, structures,
- 42 junction boxes and inlets.

- 1 4. If no longer required for maintenance of erosion facilities, and upon approval by
- 2 City, remove erosion control from site.
- 3 5. Clean signs, lights, signals, etc.

4 **3.11 CLOSEOUT ACTIVITIES [NOT USED]**

5 **3.12 PROTECTION [NOT USED]**

6 **3.13 MAINTENANCE [NOT USED]**

7 **3.14 ATTACHMENTS [NOT USED]**

8 **END OF SECTION**

9

Revision Log		
DATE	NAME	SUMMARY OF CHANGE

10

1 **SECTION 01 77 19**
2 **CLOSEOUT REQUIREMENTS**

3 **PART 1 - GENERAL**

4 **1.1 SUMMARY**

5 A. Section Includes:

- 6 1. The procedure for closing out a contract

7 B. Deviations from this City of Fort Worth Standard Specification

- 8 1. None.

9 C. Related Specification Sections include, but are not necessarily limited to:

- 10 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
11 2. Division 1 – General Requirements

12 **1.2 PRICE AND PAYMENT PROCEDURES**

13 A. Measurement and Payment

- 14 1. Work associated with this Item is considered subsidiary to the various Items bid.
15 No separate payment will be allowed for this Item.

16 **1.3 REFERENCES [NOT USED]**

17 **1.4 ADMINISTRATIVE REQUIREMENTS**

18 A. Guarantees, Bonds and Affidavits

- 19 1. No application for final payment will be accepted until all guarantees, bonds,
20 certificates, licenses and affidavits required for Work or equipment as specified are
21 satisfactorily filed with the City.

22 B. Release of Liens or Claims

- 23 1. No application for final payment will be accepted until satisfactory evidence of
24 release of liens has been submitted to the City.

25 **1.5 SUBMITTALS**

- 26 A. Submit all required documentation to City's Project Representative.

1 **1.6 INFORMATIONAL SUBMITTALS [NOT USED]**

2 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**

3 **PART 2 - PRODUCTS [NOT USED]**

4 **PART 3 - EXECUTION**

5 **3.1 INSTALLERS [NOT USED]**

6 **3.2 EXAMINATION [NOT USED]**

7 **3.3 PREPARATION [NOT USED]**

8 **3.4 CLOSEOUT PROCEDURE**

9 A. Prior to requesting Final Inspection, submit:

- 10 1. Project Record Documents in accordance with Section 01 78 39
11 2. Operation and Maintenance Data, if required, in accordance with Section 01 78 23

12 B. Prior to requesting Final Inspection, perform final cleaning in accordance with Section
13 01 74 23.

14 C. Final Inspection

- 15 1. After final cleaning, provide notice to the City Project Representative that the Work
16 is completed.
17 a. The City will make an initial Final Inspection with the Contractor present.
18 b. Upon completion of this inspection, the City will notify the Contractor, in
19 writing within 10 business days, of any particulars in which this inspection
20 reveals that the Work is defective or incomplete.
- 21 2. Upon receiving written notice from the City, immediately undertake the Work
22 required to remedy deficiencies and complete the Work to the satisfaction of the
23 City.
- 24 3. Upon completion of Work associated with the items listed in the City's written
25 notice, inform the City, that the required Work has been completed. Upon receipt
26 of this notice, the City, in the presence of the Contractor, will make a subsequent
27 Final Inspection of the project.
- 28 4. Provide all special accessories required to place each item of equipment in full
29 operation. These special accessory items include, but are not limited to:
30 a. Specified spare parts
31 b. Adequate oil and grease as required for the first lubrication of the equipment
32 c. Initial fill up of all chemical tanks and fuel tanks
33 d. Light bulbs
34 e. Fuses
35 f. Vault keys
36 g. Handwheels
37 h. Other expendable items as required for initial start-up and operation of all
38 equipment

39 D. Notice of Project Completion

1 1. Once the City Project Representative finds the Work subsequent to Final Inspection
2 to be satisfactory, the City will issue a Notice of Project Completion (Green Sheet).

3 E. Supporting Documentation

4 1. Coordinate with the City Project Representative to complete the following
5 additional forms:

- 6 a. Final Payment Request
- 7 b. Statement of Contract Time
- 8 c. Affidavit of Payment and Release of Liens
- 9 d. Consent of Surety to Final Payment
- 10 e. Pipe Report (if required)
- 11 f. Contractor's Evaluation of City
- 12 g. Performance Evaluation of Contractor

13 F. Letter of Final Acceptance

14 1. Upon review and acceptance of Notice of Project Completion and Supporting
15 Documentation, in accordance with General Conditions, City will issue Letter of
16 Final Acceptance and release the Final Payment Request for payment.

17 **3.5 REPAIR / RESTORATION [NOT USED]**

18 **3.6 RE-INSTALLATION [NOT USED]**

19 **3.7 FIELD [OR] SITE QUALITY CONTROL [NOT USED]**

20 **3.8 SYSTEM STARTUP [NOT USED]**

21 **3.9 ADJUSTING [NOT USED]**

22 **3.10 CLEANING [NOT USED]**

23 **3.11 CLOSEOUT ACTIVITIES [NOT USED]**

24 **3.12 PROTECTION [NOT USED]**

25 **3.13 MAINTENANCE [NOT USED]**

26 **3.14 ATTACHMENTS [NOT USED]**

27 **END OF SECTION**

28

Revision Log		
DATE	NAME	SUMMARY OF CHANGE

29

- 1 b. Paper
- 2 1) 40 pound minimum, white, for typed pages
- 3 2) Holes reinforced with plastic, cloth or metal
- 4 c. Text: Manufacturer's printed data, or neatly typewritten
- 5 d. Drawings
- 6 1) Provide reinforced punched binder tab, bind in with text
- 7 2) Reduce larger drawings and fold to size of text pages.
- 8 e. Provide fly-leaf for each separate product, or each piece of operating
- 9 equipment.
- 10 1) Provide typed description of product, and major component parts of
- 11 equipment.
- 12 2) Provide indexed tabs.
- 13 f. Cover
- 14 1) Identify each volume with typed or printed title "OPERATING AND
- 15 MAINTENANCE INSTRUCTIONS".
- 16 2) List:
- 17 a) Title of Project
- 18 b) Identity of separate structure as applicable
- 19 c) Identity of general subject matter covered in the manual
- 20 3. Binders
- 21 a. Commercial quality 3-ring binders with durable and cleanable plastic covers
- 22 b. When multiple binders are used, correlate the data into related consistent
- 23 groupings.
- 24 4. If available, provide an electronic form of the O&M Manual.
- 25 B. Manual Content
- 26 1. Neatly typewritten table of contents for each volume, arranged in systematic order
- 27 a. Contractor, name of responsible principal, address and telephone number
- 28 b. A list of each product required to be included, indexed to content of the volume
- 29 c. List, with each product:
- 30 1) The name, address and telephone number of the subcontractor or installer
- 31 2) A list of each product required to be included, indexed to content of the
- 32 volume
- 33 3) Identify area of responsibility of each
- 34 4) Local source of supply for parts and replacement
- 35 d. Identify each product by product name and other identifying symbols as set
- 36 forth in Contract Documents.
- 37 2. Product Data
- 38 a. Include only those sheets which are pertinent to the specific product.
- 39 b. Annotate each sheet to:
- 40 1) Clearly identify specific product or part installed
- 41 2) Clearly identify data applicable to installation
- 42 3) Delete references to inapplicable information
- 43 3. Drawings
- 44 a. Supplement product data with drawings as necessary to clearly illustrate:
- 45 1) Relations of component parts of equipment and systems
- 46 2) Control and flow diagrams
- 47 b. Coordinate drawings with information in Project Record Documents to assure
- 48 correct illustration of completed installation.

- 1 c. Do not use Project Record Drawings as maintenance drawings.
- 2 4. Written text, as required to supplement product data for the particular installation:
- 3 a. Organize in consistent format under separate headings for different procedures.
- 4 b. Provide logical sequence of instructions of each procedure.
- 5 5. Copy of each warranty, bond and service contract issued
- 6 a. Provide information sheet for City personnel giving:
- 7 1) Proper procedures in event of failure
- 8 2) Instances which might affect validity of warranties or bonds
- 9 C. Manual for Materials and Finishes
- 10 1. Submit 5 copies of complete manual in final form.
- 11 2. Content, for architectural products, applied materials and finishes:
- 12 a. Manufacturer's data, giving full information on products
- 13 1) Catalog number, size, composition
- 14 2) Color and texture designations
- 15 3) Information required for reordering special manufactured products
- 16 b. Instructions for care and maintenance
- 17 1) Manufacturer's recommendation for types of cleaning agents and methods
- 18 2) Cautions against cleaning agents and methods which are detrimental to
- 19 product
- 20 3) Recommended schedule for cleaning and maintenance
- 21 3. Content, for moisture protection and weather exposure products:
- 22 a. Manufacturer's data, giving full information on products
- 23 1) Applicable standards
- 24 2) Chemical composition
- 25 3) Details of installation
- 26 b. Instructions for inspection, maintenance and repair
- 27 D. Manual for Equipment and Systems
- 28 1. Submit 5 copies of complete manual in final form.
- 29 2. Content, for each unit of equipment and system, as appropriate:
- 30 a. Description of unit and component parts
- 31 1) Function, normal operating characteristics and limiting conditions
- 32 2) Performance curves, engineering data and tests
- 33 3) Complete nomenclature and commercial number of replaceable parts
- 34 b. Operating procedures
- 35 1) Start-up, break-in, routine and normal operating instructions
- 36 2) Regulation, control, stopping, shut-down and emergency instructions
- 37 3) Summer and winter operating instructions
- 38 4) Special operating instructions
- 39 c. Maintenance procedures
- 40 1) Routine operations
- 41 2) Guide to "trouble shooting"
- 42 3) Disassembly, repair and reassembly
- 43 4) Alignment, adjusting and checking
- 44 d. Servicing and lubrication schedule
- 45 1) List of lubricants required
- 46 e. Manufacturer's printed operating and maintenance instructions
- 47 f. Description of sequence of operation by control manufacturer

- 1) Predicted life of parts subject to wear
 - 2) Items recommended to be stocked as spare parts
 - g. As installed control diagrams by controls manufacturer
 - h. Each contractor's coordination drawings
 - 1) As installed color coded piping diagrams
 - i. Charts of valve tag numbers, with location and function of each valve
 - j. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage
 - k. Other data as required under pertinent Sections of Specifications
3. Content, for each electric and electronic system, as appropriate:
- a. Description of system and component parts
 - 1) Function, normal operating characteristics, and limiting conditions
 - 2) Performance curves, engineering data and tests
 - 3) Complete nomenclature and commercial number of replaceable parts
 - b. Circuit directories of panelboards
 - 1) Electrical service
 - 2) Controls
 - 3) Communications
 - c. As installed color coded wiring diagrams
 - d. Operating procedures
 - 1) Routine and normal operating instructions
 - 2) Sequences required
 - 3) Special operating instructions
 - e. Maintenance procedures
 - 1) Routine operations
 - 2) Guide to "trouble shooting"
 - 3) Disassembly, repair and reassembly
 - 4) Adjustment and checking
 - f. Manufacturer's printed operating and maintenance instructions
 - g. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage
 - h. Other data as required under pertinent Sections of Specifications
4. Prepare and include additional data when the need for such data becomes apparent during instruction of City's personnel.

1.7 CLOSEOUT SUBMITTALS [NOT USED]

1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]

1.9 QUALITY ASSURANCE

- A. Provide operation and maintenance data by personnel with the following criteria:
- 1. Trained and experienced in maintenance and operation of described products
 - 2. Skilled as technical writer to the extent required to communicate essential data
 - 3. Skilled as draftsman competent to prepare required drawings

1 **1.10 DELIVERY, STORAGE, AND HANDLING [NOT USED]**

2 **1.11 FIELD [SITE] CONDITIONS [NOT USED]**

3 **1.12 WARRANTY [NOT USED]**

4 **PART 2 - PRODUCTS [NOT USED]**

5 **PART 3 - EXECUTION [NOT USED]**

6 **END OF SECTION**

7

Revision Log		
DATE	NAME	SUMMARY OF CHANGE
8/31/2012	D. Johnson	1.5.A.1 – title of section removed

8

1 **SECTION 01 78 39**
2 PROJECT RECORD DOCUMENTS

3 **PART 1 - GENERAL**

4 **1.1 SUMMARY**

5 A. Section Includes:

- 6 1. Work associated with the documenting the project and recording changes to project
7 documents, including:
8 a. Record Drawings
9 b. Water Meter Service Reports
10 c. Sanitary Sewer Service Reports
11 d. Large Water Meter Reports

12 B. Deviations from this City of Fort Worth Standard Specification

- 13 1. None.

14 C. Related Specification Sections include, but are not necessarily limited to:

- 15 1. Division 0 – Bidding Requirements, Contract Forms and Conditions of the Contract
16 2. Division 1 – General Requirements

17 **1.2 PRICE AND PAYMENT PROCEDURES**

18 A. Measurement and Payment

- 19 1. Work associated with this Item is considered subsidiary to the various Items bid.
20 No separate payment will be allowed for this Item.

21 **1.3 REFERENCES [NOT USED]**

22 **1.4 ADMINISTRATIVE REQUIREMENTS [NOT USED]**

23 **1.5 SUBMITTALS**

- 24 A. Prior to submitting a request for Final Inspection, deliver Project Record Documents to
25 City's Project Representative.

26 **1.6 ACTION SUBMITTALS/INFORMATIONAL SUBMITTALS [NOT USED]**

27 **1.7 CLOSEOUT SUBMITTALS [NOT USED]**

28 **1.8 MAINTENANCE MATERIAL SUBMITTALS [NOT USED]**

29 **1.9 QUALITY ASSURANCE**

30 A. Accuracy of Records

- 31 1. Thoroughly coordinate changes within the Record Documents, making adequate
32 and proper entries on each page of Specifications and each sheet of Drawings and
33 other Documents where such entry is required to show the change properly.
34 2. Accuracy of records shall be such that future search for items shown in the Contract
35 Documents may rely reasonably on information obtained from the approved Project
36 Record Documents.

3. To facilitate accuracy of records, make entries within 24 hours after receipt of information that the change has occurred.
4. Provide factual information regarding all aspects of the Work, both concealed and visible, to enable future modification of the Work to proceed without lengthy and expensive site measurement, investigation and examination.

1.10 STORAGE AND HANDLING

A. Storage and Handling Requirements

1. Maintain the job set of Record Documents completely protected from deterioration and from loss and damage until completion of the Work and transfer of all recorded data to the final Project Record Documents.
2. In the event of loss of recorded data, use means necessary to again secure the data to the City's approval.
 - a. In such case, provide replacements to the standards originally required by the Contract Documents.

1.11 FIELD [SITE] CONDITIONS [NOT USED]

1.12 WARRANTY [NOT USED]

PART 2 - PRODUCTS

2.1 OWNER-FURNISHED [OR] OWNER-SUPPLIED PRODUCTS [NOT USED]

2.2 RECORD DOCUMENTS

A. Job set

1. Promptly following receipt of the Notice to Proceed, secure from the City, at no charge to the Contractor, 1 complete set of all Documents comprising the Contract.

B. Final Record Documents

1. At a time nearing the completion of the Work and prior to Final Inspection, provide the City 1 complete set of all Final Record Drawings in the Contract.

2.3 ACCESSORIES [NOT USED]

2.4 SOURCE QUALITY CONTROL [NOT USED]

PART 3 - EXECUTION

3.1 INSTALLERS [NOT USED]

3.2 EXAMINATION [NOT USED]

3.3 PREPARATION [NOT USED]

3.4 MAINTENANCE DOCUMENTS

A. Maintenance of Job Set

1. Immediately upon receipt of the job set, identify each of the Documents with the title, "RECORD DOCUMENTS - JOB SET".

- 1 2. Preservation
- 2 a. Considering the Contract completion time, the probable number of occasions
- 3 upon which the job set must be taken out for new entries and for examination,
- 4 and the conditions under which these activities will be performed, devise a
- 5 suitable method for protecting the job set.
- 6 b. Do not use the job set for any purpose except entry of new data and for review
- 7 by the City, until start of transfer of data to final Project Record Documents.
- 8 c. Maintain the job set at the site of work.
- 9 3. Coordination with Construction Survey
- 10 a. At a minimum, in accordance with the intervals set forth in Section 01 71 23,
- 11 clearly mark any deviations from Contract Documents associated with
- 12 installation of the infrastructure.
- 13 4. Making entries on Drawings
- 14 a. Record any deviations from Contract Documents.
- 15 b. Use an erasable colored pencil (not ink or indelible pencil), clearly describe the
- 16 change by graphic line and note as required.
- 17 c. Date all entries.
- 18 d. Call attention to the entry by a "cloud" drawn around the area or areas affected.
- 19 e. In the event of overlapping changes, use different colors for the overlapping
- 20 changes.
- 21 5. Conversion of schematic layouts
- 22 a. In some cases on the Drawings, arrangements of conduits, circuits, piping,
- 23 ducts, and similar items, are shown schematically and are not intended to
- 24 portray precise physical layout.
- 25 1) Final physical arrangement is determined by the Contractor, subject to the
- 26 City's approval.
- 27 2) However, design of future modifications of the facility may require
- 28 accurate information as to the final physical layout of items which are
- 29 shown only schematically on the Drawings.
- 30 b. Show on the job set of Record Drawings, by dimension accurate to within 1
- 31 inch, the centerline of each run of items.
- 32 1) Final physical arrangement is determined by the Contractor, subject to the
- 33 City's approval.
- 34 2) Show, by symbol or note, the vertical location of the Item ("under slab", "in
- 35 ceiling plenum", "exposed", and the like).
- 36 3) Make all identification sufficiently descriptive that it may be related
- 37 reliably to the Specifications.
- 38 c. The City may waive the requirements for conversion of schematic layouts
- 39 where, in the City's judgment, conversion serves no useful purpose. However,
- 40 do not rely upon waivers being issued except as specifically issued in writing
- 41 by the City.
- 42 B. Final Project Record Documents
- 43 1. Transfer of data to Drawings
- 44 a. Carefully transfer change data shown on the job set of Record Drawings to the
- 45 corresponding final documents, coordinating the changes as required.
- 46 b. Clearly indicate at each affected detail and other Drawing a full description of
- 47 changes made during construction, and the actual location of items.

- 1 c. Call attention to each entry by drawing a "cloud" around the area or areas
- 2 affected.
- 3 d. Make changes neatly, consistently and with the proper media to assure
- 4 longevity and clear reproduction.
- 5 2. Transfer of data to other Documents
- 6 a. If the Documents, other than Drawings, have been kept clean during progress of
- 7 the Work, and if entries thereon have been orderly to the approval of the City,
- 8 the job set of those Documents, other than Drawings, will be accepted as final
- 9 Record Documents.
- 10 b. If any such Document is not so approved by the City, secure a new copy of that
- 11 Document from the City at the City's usual charge for reproduction and
- 12 handling, and carefully transfer the change data to the new copy to the approval
- 13 of the City.

14 **3.5 REPAIR / RESTORATION [NOT USED]**

15 **3.6 RE-INSTALLATION [NOT USED]**

16 **3.7 FIELD [OR] SITE QUALITY CONTROL [NOT USED]**

17 **3.8 SYSTEM STARTUP [NOT USED]**

18 **3.9 ADJUSTING [NOT USED]**

19 **3.10 CLEANING [NOT USED]**

20 **3.11 CLOSEOUT ACTIVITIES [NOT USED]**

21 **3.12 PROTECTION [NOT USED]**

22 **3.13 MAINTENANCE [NOT USED]**

23 **3.14 ATTACHMENTS [NOT USED]**

24 **END OF SECTION**

25

Revision Log		
DATE	NAME	SUMMARY OF CHANGE

26



**CITY OF FORT WORTH
WATER DEPARTMENT
STANDARD PRODUCT LIST**

Updated: December 6, 2018

The Fort Worth Water Department's Standard Products List has been developed to minimize the submittal review of products which meet the Fort Worth Water Department's Standard Specifications during utility construction projects. When Technical Specifications for specific products, are included as part of the Construction Contract Documents, the requirements of the Technical Specification will override the Fort Worth Water Department's Standard Specifications and the Fort Worth Water Department's Standard Products List and approval of the specific products will be based on the requirements of the Technical Specification whether or not the specific product meets the Fort Worth Water Department's Standard Specifications or is on the Fort Worth Water Department's Standard Products List.

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**CITY OF FORT WORTH
WATER DEPARTMENT
STANDARD PRODUCT LIST**

Updated: 12/06/2018

Note: All water or sewer pipe larger than 15 inch diameter shall be approved for use by the Water Department on a project specific basis. Special bedding may be required for some pipes.

Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Water & Sewer - Manholes & Bases/Components 33-39-10 (Rev 2/3/16)						
07/23/97	33 05 13	Urethane Hydrophilic Waterstop	Ashii Kogyo K.K.	Adeka Ultra-Seal P-201	ASTM D2240/D412/D792	
04/26/00	33 05 13	Offset Joint for 4" Diam. MH	Hanson Concrete Products	Drawing No. 35-0048-001		
04/26/00	33 05 13	Profile Gasket for 4" Diam. MH.	Press-Seal Gasket Corp.	250-4G Gasket	ASTM C-443/C-361	SS MH
1/26/99	33 05 13	HDPE Manhole Adjustment Rings	Ladtech, Inc	HDPE Adjustment Ring		Non-traffic area
5/13/05	33 05 13	Manhole External Wrap	Cantusa - CFS	WrapidSeal Manhole Encapsulation System		



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Water & Sewer - Manholes & Bases/Fiberglass 33-39-13 (1/8/13)				
1/26/99	33 39 13	Fiberglass Manhole	Fluid Containment, Inc.	Flowrite	ASTM 3753	Non-traffic area
08/30/06	33 39 13	Fiberglass Manhole	L.F. Manufacturing			Non-traffic area



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Water & Sewer - Manholes & Bases/Components 33-39-10 (Rev 2/3/16)				
07/23/97	33 05 13	Urethane Hydrophilic Waterstop	Aseahi Kogyo K.K.	Adeka Ultra-Seal P-201	ASTM D2240/D412/D792	
04/26/00	33 05 13	Offset Joint for 4' Diam. MH	Hanson Concrete Products	Drawing No. 35-0048-001		
04/26/00	33 05 13	Profile Gasket for 4' Diam. MH.	Press-Seal Gasket Corp.	250-4G Gasket	ASTM C-443/C-361	SS MH
1/26/99	33 05 13	HDPE Manhole Adjustment Rings	Ladtech, Inc	HDPE Adjustment Ring		Non-traffic area
5/13/05	33 05 13	Manhole External Wrap	Cannisa - CFS	WrapidSeal Manhole Encapsulation System		



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
*	33.05.13	Manhole Frames and Covers	Western Iron Works, Bass & Hays Foundry	1001		24" x 40" WD



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Water & Sewer - Manholes & Bases/Frames & Covers/Standard (Round) 33-05-13 (Rev 2/3/16)						
*	33 05 13	Manhole Frames and Covers	Western Iron Works, Bass & Hays Foundry	30024		24" Dia.
*	33 05 13	Manhole Frames and Covers	McKinley Iron Works Inc.	A 24 AM		24" Dia.
08/24/18	33 05 13	Manhole Frames and Covers	Necmah Foundry	R-1272	ASTM A48 & AASHTO M306	24" Dia.
08/24/18	33 05 13	Manhole Frames and Covers	Necmah Foundry	R-165-LM (Hinged)	ASTM A48 & AASHTO M306	24" Dia.
08/24/18	33 05 13	Manhole Frames and Covers	Necmah Foundry	NF 1274	ASTM A48 & AASHTO M306	30" Dia.
08/24/18	33 05 13	Manhole Frames and Covers	Necmah Foundry	R-1743-LM (Hinged)	ASTM A48 & AASHTO M306	30" dia.
	33 05 13	Manhole Frames and Covers	Sigma Corporation	MH-144N		
	33 05 13	Manhole Frames and Covers	Sigma Corporation	MH-143N		
	33 05 13	Manhole Frames and Covers	Pont-A-Mousson	GTS-STD		24" dia.
	33 05 13	Manhole Frames and Covers	Necmah Casting			24" dia.
10/31/06	33 05 13	Manhole Frames and Covers (Hinged)	Powersal	Hinged Ductile Iron Manhole	ASTM A536	24" Dia.
7/25/03	33 05 13	Manhole Frames and Covers	Saint-Gobain Pipelines (Pannex/rexus)	RE32-R8FS		30" Dia.
01/31/06	33 05 13	30" DI MH Ring and Cover	East Jordan Iron Works	V1432-2 and V1483 Designs	AASHTO M306-04	30" Dia.
11/02/10	33 05 13	30" DI MH Ring and Cover	Sigma Corporation	MH1651FVN & MH16502		30" Dia
07/19/11	33 05 13	30" DI MH Ring and Cover	Star Pipe Products	MH32FTWSS-DC		30" Dia
08/10/11	33 05 13	30" DI MH Ring and Cover	Accucast	220700 Heavy Duty with Gasket Ring		30" Dia
10/14/13	33 05 13	30" DI MH Ring and Cover (Hinged & Lockable)	East Jordan Iron Works	30" ERGO XL Assembly with Cam Lock/MPIC/T-Gasket	ASSHTO M105 & ASTM A536	30" Dia
06/01/17	34 05 13	30" DI MH Ring and Cover (Hinged & Lockable) CI	SlP Industries	2280 (32")	ASTM A 48	30" Dia.
08/24/17	33 05 13.01	30" DI MH Ring and Cover (Hinge & Lock) Composite	ScovetCover	SCDH 3000, Std. Dbl Hinge Non-Metallic Ring and Cover w/Lock HD/FRP Composite		30" Dia.

* From Original Standard Products List

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**CITY OF FORT WORTH
WATER DEPARTMENT
STANDARD PRODUCT LIST**

Updated: 12/06/2018

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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Water & Sewer - Manholes & Bases/Frames & Covers/Water Tight & Pressure Tight 33-05-13 (Rev 2/3/16)				
*	33 05 13	Manhole Frames and Covers	Pont-A-Mousson	Pamitight		24" Dia.
*	33 05 13	Manhole Frames and Covers	Nemah Casting			24" Dia.
*	33 05 13	Manhole Frames and Covers	Western Iron Works, Bags & Hays Foundry	300-24P		24" Dia.
*	33 05 13	Manhole Frames and Covers	McKinley Iron Works Inc.	WPA24AM		24" Dia.
03/08/00	33 05 13	Manhole Frames and Covers	Accucast	RC-2100	ASTM A 48	24" Dia.
04/20/01	33 05 13	Manhole Frames and Covers	(SIP)Serampore Industries Private Ltd.	300-24-23.75 Ring and Cover	ASTM A 48	24" Dia.

* From Original Standard Products List

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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Water & Sewer - Manholes & Bases/Precast Concrete (Rev 1/8/13)						
*	33 39 10	Manhole, Precast Concrete	Hydro Conduit Corp	SPL Item #49	ASTM C 478	48"
*	33 39 10	Manhole, Precast Concrete	Wall Concrete Pipe Co. Inc.		ASTM C-443	48"
*	33 39 10	Manhole, Precast Concrete	Forterra(formerly Gifford-Hill, Hanson)		ASTM C 478	48"
04/26/00	33 39 10	MH, Single Offset, Seal Joint	Forterra(formerly Gifford-Hill, Hanson)	Type F Dwg. 35-0048-001	ASTM C 478	48" Diam MH
09/23/96	33 39 10	Manhole, Precast Concrete	Concrete Product Inc.	48" I.D. Manhole w/ 32" Conc	ASTM C 478	48" w/32" conc
05/08/18	33 39 10	Manhole, Precast Concrete	The Turner Company	48" I.D. Manhole w/ 32" Conc	ASTM C 478	48", 60"
10/27/06	33 39 10	Manhole, Precast Concrete	Oldcastle Precast Inc.	48" I.D. Manhole w/ 24" Conc	ASTM C 478	48" Diam w 24" Ring
06/09/10	33 39 10	Manhole, Precast (Reinforce Polymer) Concrete	US Composite Pipe	Reinforced Polymer Concrete	ASTM C-76	48" to 72"



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Water & Sewer - Manholes & Bases/Rehab Systems/Cementitious						
*	E1-14	Manhole Rehab Systems	Quadox			
04/23/01	E1-14	Manhole Rehab Systems	Standard Cement Materials, Inc.	Refiner MSP		
4/20/01	E1-14	Manhole Rehab Systems	AP/M Permaform Strong Company	Strong Seal MSZA Rehab System		
5/12/03	E1-14	Manhole Rehab System (Liner)	Poly-triplex Technologies	MH repair product to stop infiltration	ASTM D5813	
08/30/06		General Concrete Repair	FlexKrete Technologies	Vinyl Polyester Repair Product		Misc. Use



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Water & Sewer - Manholes & Bases/Rehab Systems/Non-Cementitious						
05/20/96	E1-14	Manhole Rehab Systems	Spraycoq	Spray Wall Polyurethane Coating	ASTM D639/D790	
*	E1-14	Manhole Rehab Systems	Sun Coast			
12/14/01		Coating for Corrosion protection(Exterior)	ERTECH	Series 20230 and 2100 (Asphaltic Emulsion)		For Exterior Coating of Concrete Structures Only
01/31/06		Coatings for Corrosion Protection	Chesterton	Acs 791, S1HB, S1, SZ	Acid Resistance Test	Sewer Applications
8/28/2006		Coatings for Corrosion Protection	Warren Environmental	S-301 and M-301		Sewer Applications
08/30/06		Coatings for Corrosion Protection	Citadel	SL-S-30 Solids Epoxy		Sewer Applications
33 05 16, 33 39 10, 33 39 20		Coating for Corrosion protection(Exterior)	Sherwin Williams	RR&C Dampproofing Non-Fibered Spray Grade (Asphaltic Emulsion)		For Exterior Coating of Concrete Structures Only

* From Original Standard Products List

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**CITY OF FORT WORTH
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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Water & Sewer - Manhole Inserts - Field Operations Use Only (Rev 2/3/16)				
*	33.05.13	Manhole Insert	Knutson Enterprises	Made to Order - Plastic	ASTM D 1248	For 24" dia.
*	33.05.13	Manhole Insert	South Western Packaging	Made to Order - Plastic	ASTM D 1248	For 24" dia.
*	33.05.13	Manhole Insert	NoFlow-Inflow	Made to Order - Plastic	ASTM D 1248	For 24" dia.
09/23/96	33.05.13	Manhole Insert	Southwestern Packing & Seals, Inc.	LifeSaver - Stainless Steel		For 24" dia.
09/23/96	33.05.13	Manhole Insert	Southwestern Packing & Seals, Inc.	TetherLok - Stainless Steel		For 24" dia.



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Water & Sewer - Pipe Casing Spacers 33-05-24 (07/01/13)				
11/04/02		Steel Band Casing Spacers	Advanced Products and Systems, Inc.	Carbon Steel Spacers, Model SI		
02/02/93		Stainless Steel Casing Spacer	Advanced Products and Systems, Inc.	Stainless Steel Spacer, Model SSI		
04/22/87		Casing Spacers	Cascade Waterworks Manufacturing	Casing Spacers		
09/14/10		Stainless Steel Casing Spacer	Pipeline Seal and Insulator	Stainless Steel Casing Spacer		Up to 48"
09/14/10		Coated Steel Casin Spacers	Pipeline Seal and Insulator	Coated Steel Casin Spacers		Up to 48"
05/10/11		Stainless Steel Casing Spacer	Powersal	4810 Powershock		Up to 48"
03/19/18		Casing Spacers	BWM	SS-12 Casing Spacer(Stainless Steel)		
03/19/18		Casing Spacers	BWM	FB-12 Casing Spacer (Coated Carbon Steel) for Non_pressure Pipe and Grouted Casing		



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Water & Sewer - Pipes/Ductile Iron 33-11-10(18/13)				
*	33 11 10	Ductile Iron Pipe	Griffin Pipe Products, Co.	Super Bell-Tile Ductile Iron Pressure Pipe.	AWWA C150, C151	3" thru 24"
08/24/18	33 11 10	Ductile Iron Pipe	American Ductile Iron Pipe Co.	American Fasite Pipe (Bell Spigot)	AWWA C150, C151	4" thru 30"
08/24/18	33 11 10	Ductile Iron Pipe	American Ductile Iron Pipe Co.	American Flex Ring (Restrained Joint)	AWWA C150, C151	4" thru 30"
*	33 11 10	Ductile Iron Pipe	U.S. Pipe and Foundry Co.		AWWA C150, C151	
*	33 11 10	Ductile Iron Pipe	McWane Cast Iron Pipe Co.		AWWA C150, C151	



**CITY OF FORT WORTH
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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Water & Sewer - Utility Line Marker (08/24/2018)				



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Sewer - Coatings/Epoxy 33-39-60 (01/08/13)				
02/25/02		Epoxy Lining System	Sauerstein, Inc	SewerGard 210RS	LA County #210-1.33	
12/14/01		Epoxy Lining System	Ertech Technical Coatings	Ertech 2030 and 2100 Series		
04/14/05		Interior Ductile Iron Pipe Coating	Induron	Protecto 401	ASTM B-117	Ductile Iron Pipe Only
01/31/06		Coatings for Corrosion Protection	Chesterton	Acc 791, S1HB, S1, S2	Acid Resistance Test	Sewer Applications
8/28/2006		Coatings for Corrosion Protection	Warren Environmental	S-301 and M-301		Sewer Applications



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Sewer - Coatings/Polvurethane				



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Sewer - Combination Air Valves				
05/25/18	33-31-70	Air Release Valve	A.R.I. USA, Inc.	D025LTP02(Composite Body)		2"



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Sewer - Pipes/Concrete						
*	E1-04	Conc. Pipe, Reinforced	Wall Concrete Pipe Co. Inc.		ASTM C 76	
*	E1-04	Conc. Pipe, Reinforced	Hydro Conduit Corporation	Class III T&G, SPL Item #77	ASTM C 76	
*	E1-04	Conc. Pipe, Reinforced	Hanson Concrete Products	SPL-Item-#95-Manhole-#98-Pipe	ASTM C 76	
*	E1-04	Conc. Pipe, Reinforced	Concrete Pipe & Products Co. Inc.		ASTM C 76	



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Updated: 12/06/2018

Note: All water or sewer pipe larger than 15 inch diameter shall be approved for use by the Water Department on a project specific basis. Special bedding may be required for some pipes.

Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Sewer - Pipe/Fiberglass Reinforced Pipe 33-31-13(1/8/13)				
7/21/97	33 31 13	Cent. Cast Fiberglass	Hobas Pipe USA, Inc.	Hobas Pipe (Non-Pressure)	ASTM D3362/D3754	
03/22/10	33 31 13	Fiberglass Pipe	Ameron	Bondstrand RPPM Pipe	ASTM D3362/D3754	
10/30/03		Glass-Fiber Reinforced Polymer Pipe	Thompson Pipe Group	Flowite	ASTM D3362/D3754	
4/14/05		Polymer Modified Concrete Pipe	Amitech USA	Meyer Polycrete Pipe	ASTM C33, A276, F477	8" to 102", Class V
06/09/10	E1-9	Reinforced Polymer Concrete Pipe	US Composite Pipe	Reinforced Polymer Concrete Pipe	ASTM C-76	



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Sewer - Pipes/HDPE 33-31-230/8/13				
*		High-density polyethylene pipe	Phillips Driscopipe, Inc.	Opticore Ductile Polyethylene Pipe	ASTM D 1248	8"
*		High-density polyethylene pipe	Plexco Inc.		ASTM D 1248	8"
*		High-density polyethylene pipe	Polly Pipe, Inc.		ASTM D 1248	8"
		High-density polyethylene pipe	CSR Hydro Conduit/Pipeline Systems	McConnell Pipe Enlargement	ASTM D 1248	



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Sewer - Pipes/PVC (Pressure Sewer) 33-11-12 (4/1/13)				
12/02/11	33-11-12	DR-14 PVC Pressure Pipe	Pipelife Jetstream	PVC Pressure Pipe	AWWA C900	4" thru 12"
10/22/14	33-11-12	DR-14 PVC Pressure Pipe	Royal Building Products	Royal Seal PVC Pressure Pipe	AWWA C900	4" thru 32"



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Sewer - Pipes/PVC 33-31-20 (7/1/13)						
*	33-31-20	PVC Sewer Pipe	Certain-Toed Products Corp		ASTM D 3034	4" thru 15"
*	33-31-20	PVC Sewer Pipe	Napco Manufacturing Corp		ASTM D 3034, D 1784	4" & 8"
*	33-31-20	PVC Sewer Pipe	J-M Manufacturing Co., Inc. (JM Eagle)		ASTM D 3034	4" - 15"
12/23/97*	33-31-20	PVC Sewer Pipe	Diamond Plastics Corporation	SDR-26 and SDR-35	ASTM F 789, ASTM D 3034	4" thru 15"
*	33-31-20	PVC Sewer Pipe	Lamson Nylon Pipe		ASTM F 789	4" thru 15"
	33-31-20	PVC Sewer Pipe	Royal Building Products	Royal Seal Solid Wall Pipe SDR 26 & 35	ASTM 3034	4" thru 15"
01/18/18	33-31-20	PVC Sewer Pipe	Vinytech PVC Pipe	Gravity Sewer	ASTM D3034	4" thru 15"
11/11/98	33-31-20	PVC Sewer Pipe	Diamond Plastics Corporation	"S" Gravity Sewer Pipes	ASTM F 679	18" to 27"
*	33-31-20	PVC Sewer Pipe	J-M Manufacturing Co., Inc. (JM Eagle)		ASTM F 679	18" - 27"
09/11/12	33-31-20	PVC Sewer Pipe	Pipelife Jet Stream	SDR-26 and SDR-35	ASTM F-679	18"
05/06/05	33-31-20	PVC Solid Wall Pipe	Diamond Plastics Corporation		PS 46 ASTM F-679	18" to 48"
04/27/06	33-31-20	PVC Sewer Fittings	Harco	SDR-26 and SDR-35 Gasket Fittings	ASTM D-3034, D-1784, etc	4" - 15"
*	33-31-20	PVC Sewer Fittings	Plastic Trends, Inc	Gasketed PVC Sewer Main Fittings	ASTM D 3034	
11/17/99	E100-2	Closed Profile PVC Pipe	Diamond Plastics Corporation		ASTM 1803/F794	18" to 48"
3/19/2018	33 31 20	PVC Sewer Pipe	Pipelife Jet Stream	SDR 35	ASTM F679	18"-24"
3/19/2018	33 31 20	PVC Sewer Pipe	Pipelife Jet Stream	SDR 26	ASTM D3034	4"-15"



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Sewer - Pipes/Rehab/CIPP 33-31-12 (01/18/13)				
		Cured in Place Pipe	Instituform, Newark, Inc		ASTM F 1216	
05/03/99		Cured in Place Pipe	National Envirotech Group	National Liner, (SPL) Item #27	ASTM F-1216/D-5813	
05/29/96		Cured in Place Pipe	Reynolds Inc/Inliner Technology (Inliner USA)	Inliner Technology	ASTM F 1216	

* From Original Standard Products List



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Sewer - Pipes/Rehab/Fold & Form				
*		Fold and Form Pipe	Cullum Pipe Systems, Inc.			
11/03/98		Fold and Form Pipe	Institutorm Technologies, Inc.	Institutorm "NuPipe"	ASTM F-1504	
12/04/00		Fold and Form Pipe	American Pipe & Plastics, Inc.			Demo. Purpose Only
06/09/03		Fold and Form Pipe	Ultraliner Miller Pipeline Corp.	Ultraliner PVC Alloy Pipeliner EX Method	ASTM F-1504, 1871, 1867 ASTM F-1504, F-1947	Up to 18" diameter

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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Sewer - Pipes/Open Profile Large Diameter						
09/26/91	E100-2	PVC Sewer Pipe, Ribbed	Lansson Nylon Pipe	Carlton Nylon H.C. Closed Profile Pipe.	ASTM F 679	18" to 48"
09/26/91	E100-2	PVC Sewer Pipe, Ribbed	Extrusion Technologies, Inc.	Ultra-Rib Open Profile Sewer Pipe	ASTM F 679	18" to 48"
	E100-2	PVC Sewer Pipe, Ribbed	Uponor ETI Company			
11/10/10	(E100-2)	Polypropylene (PP) Sewer Pipe, Double Wall	Advanced Drainage Systems (ADS)	SaniTite HP Double Wall (Corrugated)	ASTM F 2736	24"-30"
11/10/10	(E100-2)	Polypropylene (PP) Sewer Pipe, Triple Wall	Advanced Drainage Systems (ADS)	SaniTite HP Triple Wall Pipe	ASTM F 2764	30" to 60"
05/16/11		Steel Reinforced Polyethylene Pipe	ConTect Construction Products	Durmaxx	ASTM F 2562	24" to 72"



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Water - Appurtenances 33-12-10 (07/01/13)						
01/18/18	33-12-10	Double Strap Saddle	Romac	202NS Nylon Coated	AWWA C800	1"-2" SVC, up to 24" Pipe
08/28/02		Double Strap Saddle	Smith Blair	#317 Nylon Coated Double Strap Saddle		
07/23/12	33-12-10	Double Strap Service Saddle	Mueller Company	DR2S Double (SS) Strap DI Saddle	AWWA C800	1"-2" SVC, up to 24" Pipe
10/27/87		Curb Stops-Ball Meter Valves	McDonald	6100M, 6100MT & 610MT		3/4" and 1"
10/27/87		Curb Stops-Ball Meter Valves	McDonald	4603B, 4604B, 6100M, 6100TM and 6101M		1 1/2" and 2"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Ford Meter Box Co., Inc.	FB600-7NL, FB1600-7-NL, FV23-777-W-NL, L22-77NL	AWWA C800	2"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Ford Meter Box Co., Inc.	FB600-6-NL, FB1600-6-NL, FV23-666-W-NL, L22-66NL	AWWA C800	1-1/2"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Ford Meter Box Co., Inc.	FB600-4-NL, FB1600-4-NL, B11-444-WR-NL, B22444-WR-NL, L28-44NL	AWWA C800	1"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Mueller Co., Ltd.	B-25000N, B-24277N-3, B-20200N-3, H-15000N, H-1552N, H-142276N	AWWA C800, ANSF 61, ANS/NSF 372	2"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Mueller Co., Ltd.	B-25000N, B-20200N-3, B-24277N-3, H-15000N, H-14276N, H-15525N	AWWA C800, ANSF 61, ANS/NSF 372	1-1/2"
5/25/2018	33-12-10	Curb Stops-Ball Meter Valves	Mueller Co., Ltd.	B-25000N, B-20200N-3, H-15000N, H-15530N	AWWA C800, ANSF 61, ANS/NSF 372	1"
01/26/00		Coated Tapping Saddle with Double SS Straps	JCM Industries, Inc.	#406 Double Band SS Saddle		1"-2" Taps on up to 12"
05/21/12	33-12-25	Tapping Sleeve (Coated Steel)	JCM Industries, Inc.	412 Tapping Sleeve ESS	AWWA C-223	Up to 30" w/12" Out
05/10/11		Tapping Sleeve (Stainless Steel)	Powersal	3490AS (Flange) & 3490MJ		4"-8" and 16"
02/29/12	33-12-25	Tapping Sleeve (Coated Steel)	Romac	FTS 240	AWWA C-223	Up to 42" w/24" Out
02/29/12	33-12-25	Tapping Sleeve (Stainless Steel)	Romac	SST III Stainless Steel	AWWA C-223	Up to 24" w/12" Out
02/29/12	33-12-25	Tapping Sleeve (Stainless Steel)	Romac	SST III Stainless Steel	AWWA C-223	Up to 30" w/12" Out
05/10/11		Joint Repair Clamp	Powersal	3232 Bell Joint Repair Clamp		4" to 30"
		Plastic Meter Box w/Composite Lid	DFW Plastics Inc.	DFW37C-12-1EPAF FTW		
		Plastic Meter Box w/Composite Lid	DFW Plastics Inc.	DFW39C-12-1EPAF FTW		
		Plastic Meter Box w/Composite Lid	DFW Plastics Inc.	DFW65C-14-1EPAF FTW		
		Concrete Meter Box	Bass & Hays	CMB37-B12 1118 LID-9		Class "A"
		Concrete Meter Box	Bass & Hays	CMB-18-Dual 1416 LID-9		
		Concrete Meter Box	Bass & Hays	CMB65-B65 1527 LID-9		



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Water - Bolts, Nuts, and Gaskets 33-11-05 (01/08/13)				



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
*	E1-11	Water - Combination Air Release Valve Combination Air Release Valve	GA Industries, Inc.	Empire Air and Vacuum Valve, Model 935	ASTM A 126 Class B, ASTM A 240 - float, ASTM A 307 - Cover Bolts	1" & 2"
*	E1-11	Combination Air Release Valve	Multiplex Manufacturing Co. Valve and Primer Corp.	Crispin Air and Vacuum Valves, Model No.		1/2", 1" & 2"
*	E1-11	Combination Air Release Valve		APCO #143C, #145C and #147C		1", 2" & 3"

* From Original Standard Products List

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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Water - Dry Barrel Fire Hydrants 33-12-40 (01/15/14)						
10/01/87	E-1-12	Dry Barrel Fire Hydrant	American-Darling Valve	Drawing Nos. 90-18608, 94-18560	AWWA C-502	
03/1/88	E-1-12	Dry Barrel Fire Hydrant	American Darling Valve	Shop Drawing No. 94-18791	AWWA C-502	
09/30/87	E-1-12	Dry Barrel Fire Hydrant	Clow Corporation	Shop Drawing No. D-19895	AWWA C-502	
01/12/93	E-1-12	Dry Barrel Fire Hydrant	American AVK Company	Model 2700	AWWA C-502	
08/24/88	E-1-12	Dry Barrel Fire Hydrant	Clow Corporation	Drawings D20435, D20436, B20506	AWWA C-502	
09/24/87	E-1-12	Dry Barrel Fire Hydrant	ITT Kennedy Valve	Shop Drawing No. D-50783FW	AWWA C-502	
10/14/87	E-1-12	Dry Barrel Fire Hydrant	M&H Valve Company	Shop Drawing No. 13476	AWWA C-502	
01/15/88	E-1-12	Dry Barrel Fire Hydrant	Mueller Company	Shop Drawings No. 6461 A-423 Centurion	AWWA C-502	
10/09/87	E-1-12	Dry Barrel Fire Hydrant	Mueller Company	Shop Drawing FH-12 A-423 Super Centurion 200	AWWA C-502	
09/16/87	E-1-12	Dry Barrel Fire Hydrant	U.S. Pipe & Foundry	Shop Drawing No. 960250	AWWA C-502	
08/12/16	33-12-40	Dry Barrel Fire Hydrant	Waterous Company	Shop Drawing No. SK740803	AWWA C-502	
			EJ (East Jordan Iron Works)	WaterMaster 5CD250		



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Water - Meters				
02/05/93	E101-5	Detector Check Meter	Ames Company	Model 1000 Detector Check Valve	AWWA C550	4" - 10"
08/05/04		Magnetic Drive Vertical Turbine	Hershey	Magnetic Drive Vertical	AWWA C701, Class I	3/4" - 6"



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Water - Pipes/PVC (Pressure Water) 33-31-70 (01/08/13)						
01/18/18	33-11-12	PVC Pressure Pipe	Vinyltech PVC Pipe		AWWA C900, AWWA C605, ASTM D1784	4'-12"
3/19/2018	33 11 12	PVC Pressure Pipe	Pipelife Jet Stream	DR14	AWWA C900	4'-12"
3/19/2018	33 11 12	PVC Pressure Pipe	Pipelife Jet Stream	DR18	AWWA C900	16"-24"
5/25/2018	33 11 12	PVC Pressure Pipe	Diamond Plastics Corporation	DR 14	AWWA C900	4'-12"
5/25/2018	33 11 12	PVC Pressure Pipe	Diamond Plastics Corporation	Trans 21, DR 14, DR 18	AWWA C900	16"-24"
12-6-2018	33 11 12	PVC Pressure Pipe	J-M Manufacturing Co., Inc d b a JM Eagle	DR 14 "Blue Brute"	AWWA C900-16 UL 1285 ANSI NSF 61 FM 1612	4'-12"
12-6-2018	33 11 12	PVC Pressure Pipe	J-M Manufacturing Co., Inc d b a JM Eagle	DR 18 "Blue Brute"	AWWA C900-16 UL 1285 ANSI NSF 61 FM 1612	16"-24"



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Water - Pipes/Valves & Fittings/Ductile Iron Fittings 33-11-11 (01/08/13)						
07/23/92	E1-07	Ductile Iron Fittings	Star Pipe Products, Inc.	Mechanical Joint Fittings	AWWA C153 & C110	
*	E1-07	Ductile Iron Fittings	Griffin Pipe Products, Co.	Mechanical Joint Fittings	AWWA C 110	
*	E1-07	Ductile Iron Fittings	McWane/Tyler Pipe/ Union Utilities Division	Mechanical Joint Fittings, SSB Class 350	AWWA C 153, C 110, C 111	
08/11/98	E1-07	Ductile Iron Fittings	Sigma, Co.	Mechanical Joint Fittings, SSB Class 351	AWWA C 153, C 110, C 112	
02/26/14	E1-07	MJ Fittings	Accucast	Class 350 C-153 MJ Fittings	AWWA C153	4"-12"
05/14/98	E1-07	Ductile Iron Joint Restraints	Ford Meter Box Co./Uni-Flange	Uni-Flange Series 1400	AWWA C111/C153	4" to 36"
05/14/98	E1-24	PVC Joint Restraints	Ford Meter Box Co./Uni-Flange	Uni-Flange Series 1500 Circle-Lock	AWWA C111/C153	4" to 24"
11/09/04	E1-07	Ductile Iron Joint Restraints	One Bolt, Inc.	One Bolt Restrained Joint Fitting	AWWA C111/C116/C153	4" to 12"
02/29/12	33-11-11	Ductile Iron Pipe Mechanical Joint Restraint	EBAA Iron, Inc.	Megalug Series 1100 (for DI Pipe)	AWWA C111/C116/C153	4" to 42"
02/29/12	33-11-11	PVC Pipe Mechanical Joint Restraint	EBAA Iron, Inc.	Megalug Series 2000 (for PVC Pipe)	AWWA C111/C116/C153	4" to 24"
08/05/04	E1-07	Mechanical Joint Retainer Glands(PVC)	Sigma, Co.	Sigma One-Lok SLCA - SL-C10	AWWA C111/C153	4" to 10"
08/05/04	E1-07	Mechanical Joint Retainer Glands(PVC)	Sigma, Co.	Sigma One-Lok SLCE	AWWA C111/C153	12" to 24"
08/10/98	E1-07	MJ Fittings(DIP)	Sigma, Co.	Sigma One-Lok SLDE	AWWA C153	4" - 24"
10/12/10	E1-24	Interior Restrained Joint System	S & B Technical Products	Bulldog System (Diamond Lok 21 & JM Eagle	ASTM F-1624	4" to 12"
08/16/06	E1-07	Mechanical Joint Fittings	SIP Industries(Serampore)	Mechanical Joint Fittings	AWWA C153	4" to 24"
11/07/16	33-11-11	Mechanical Joint Retainer Glands	Star Pipe Products, Inc.	PVC Stargrip Series 4000	ASTM A536 AWWA C111	
11/07/16	33-11-11	Mechanical Joint Retainer Glands	Star Pipe Products, Inc.	DIP Stargrip Series 3000	ASTM A536 AWWA C111	
03/19/18	33-11-11	Mechanical Joint Retainer Glands	SIP Industries(Serampore)	EZ Grip Joint Restraint (EZD) Black For DIP	ASTM A536 AWWA C111	3"-48"
03/19/18	33-11-11	Mechanical Joint Retainer Glands	SIP Industries(Serampore)	EZ Grip Joint Restraint (EZD) Red for C900 DR14 PVC Pipe	ASTM A536 AWWA C111	4"-12"
03/19/18	33-11-11	Mechanical Joint Retainer Glands	SIP Industries(Serampore)	EZ Grip Joint Restraint (EZD) Red for C900 DR18 PVC Pipe	ASTM A536 AWWA C111	16"-24"

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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Water - Pipes/Valves & Fittings/Resilient Seated Gate Valve* 33-12-20 (05/13/15)						
		Resilient Wedge Gate Valve w/no Gears	American Flow Control	Series 2500 Drawing # 94-20247		16"
12/13/02		Resilient Wedge Gate Valve	American Flow Control	Series 2530 and Series 2536	AWWA C515	30" and 36"
08/31/09		Resilient Wedge Gate Valve	American Flow Control	Series 2520 & 2524 (SD 94-20255)	AWWA C515	20" and 24"
05/18/99		Resilient Wedge Gate Valve	American Flow Control	Series 2516 (SD 94-20247)	AWWA C515	16"
10/24/00	E1-26	Resilient Wedge Gate Valve	American Flow Control	Series 2500 (Ductile Iron)	AWWA C515	4" to 12"
08/05/04		Resilient Wedge Gate Valve	American Flow Control	42" and 48" AFC 2500	AWWA C515	42" and 48"
05/23/91	E1-26	Resilient Wedge Gate Valve	American AVK Company	American AVK Resilient Seated GV	AWWA C509	4" to 12"
01/24/02	E1-26	Resilient Wedge Gate Valve	American AVK Company			20" and smaller
*	E1-26	Resilient Seated Gate Valve	Kennedy			4" - 12"
*	E1-26	Resilient Seated Gate Valve	M&H			4" - 12"
*	E1-26	Resilient Seated Gate Valve	Mueller Co.			4" - 12"
11/08/99		Resilient Wedge Gate Valve	Mueller Co.	Series A2361 (SD 6647)	AWWA C515	16"
01/23/03		Resilient Wedge Gate Valve	Mueller Co.	Series A2360 for 18"-24" (SD 6709)	AWWA C515	24" and smaller
05/13/05		Resilient Wedge Gate Valve	Mueller Co.	Mueller 30" & 36", C-515	AWWA C515	30" and 36"
01/31/06		Resilient Wedge Gate Valve	Mueller Co.	Mueller 42" & 48", C-515	AWWA C515	42" and 48"
01/28/88	E1-26	Resilient Wedge Gate Valve	Clow Valve Co.			4" - 12"
10/04/94		Resilient Wedge Gate Valve	Clow Valve Co.	16" RS GV (SD D-20995)	AWWA C515	16"
11/08/99	E1-26	Resilient Wedge Gate Valve	Clow Valve Co.	Clow RW Valve (SD D-21652)	AWWA C515	24" and smaller
11/29/04		Resilient Wedge Gate Valve	Clow Valve Co.	Clow 30" & 36" C-515	AWWA C515	30" and 36" (Note 3)
11/30/12		Resilient Wedge Gate Valve	Clow Valve Co.	Clow Valve Model 2638	AWWA C515	24" to 48" (Note 3)
05/08/91	E1-26	Resilient Seated Gate Valve	Stockham Valves & Fittings		AWWA C 509, ANSI 420 - stem, ASTM A 276 Type 304 - Bolts & nuts	4" - 12"
*	E1-26	Resilient Seated Gate Valve	L.S. Pipe and Foundry Co.	Metrocol 250, requirements SPL #74		3" to 16"
10/26/16	33-12-20	Resilient Seated Gate Valve	EJ (East Jordan Iron Works)	EJ FlowMaster Gate Valve & Boxes		
08/24/18		Manco Gate Valve	Manco-Norca	225 MR	AWWA/ANSI C115/AS21.15	4" to 16"

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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
		Water - Pipes/Valves & Fittings/Rubber Seated Butterfly Valve 33-12-21 (07/10/14)				
*	E1-30	Rubber Seated Butterfly Valve	Henry Pratt Co.		AWWA C-504	24"
*	E1-30	Rubber Seated Butterfly Valve	Mueller Co.		AWWA C-504	24" and smaller
1/1/99	E1-30	Rubber Seated Butterfly Valve	Dezurik Valves Co.		AWWA C-504	24" and larger
06/12/03	E1-30	Valmatic American Butterfly Valve	Valmatic Valve and Manufacturing Corp.	Valmatic American Butterfly Valve.	AWWA C-504	Up to 84" diameter
04/06/07	E1-30	Rubber Seated Butterfly Valve	M&H Valve	M&H Style 4500 & 1450	AWWA C-504	24" to 48"
03/19/18	33 12 21	Rubber Seated Butterfly Valve	G. A. Industries (Golden, Anderson)	AWWA C504 Butterfly Valve	AWWA C-504	30"-54"



**CITY OF FORT WORTH
WATER DEPARTMENT
STANDARD PRODUCT LIST**

Updated: 12/06/2018

Note: All water or sewer pipe larger than 15 inch diameter shall be approved for use by the Water Department on a project specific basis. Special bedding may be required for some pipes.

Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
Water - Polyethylene Encasement 33-11-10 (01/08/13)						
05/12/05	E1-13	Polyethylene Encasement	Flexsol Packaging	Fulton Enterprises	AWWA C105	8 mil LLD
05/12/05	E1-13	Polyethylene Encasement	Mountain States Plastics (MSP) and AEP Ind.	Standard Hardware	AWWA C105	8 mil LLD
05/12/05	E1-13	Polyethylene Encasement	AEP Industries	Buildstrong by Cowtown Bolt & Gasket	AWWA C105	8 mil LLD



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Approval	Spec No.	Classification	Manufacturer	Model No.	National Spec	Size
3/12/96		Water Sampling Station	Water Plus	B20 Water Sampling Station		