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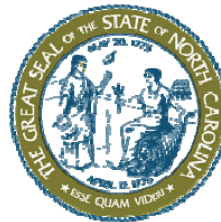
Contract and Technical Specifications For: Franklin Street Streetscape and Parking Lot Improvements



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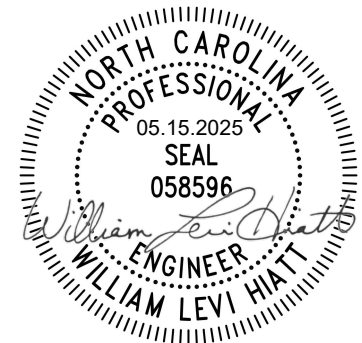
and



NORTH CAROLINA
DEPARTMENT of
COMMERCE



Prepared in the office of:
City of Mount Airy, North Carolina
ENGINEERING DIVISION
PO Box 70 Mount Airy, North Carolina 27030
Phone: 336.786.3580 Fax: 336.719.7540
www.mountairy.org



May, 2025

RUS Bulletin 1780-26
ATTACHMENT B.1 – CONTRACT DOCUMENT CHECKLIST

ATTACHMENT B.1 – CONTRACT DOCUMENT CHECKLIST

Notes to User:

1. *This attachment provides a checklist for Owner and Engineer to use to assemble the Bidding Documents for a RUS-funded project.*
2. *EJCDC documents are available from EJCDC, the National Society of Professional Engineers, the American Council of Engineering Companies, or the American Society of Civil Engineers.*
3. *RD offices cannot distribute EJCDC documents.*
4. *For questions and copies of RD documents please contact State Engineer.*

Contents	Form
Table of Contents	Prepared by Engineer
Advertisement for Bids for Construction Contract	EJCDC C-111 as modified by RUS Bulletin 1780-26 Attachment B.2
Instructions to Bidders for Construction Contract	EJCDC C-200 as modified by RUS Bulletin 1780-26 Attachment B.3
Bid Form for Construction Contract	EJCDC C-410 as modified by RUS Bulletin 1780-26 Attachment B.4
Bid Bond (Penal Sum Form)	EJCDC C-430
Qualifications Statement	EJCDC C-451
Compliance Statement	Form RD 400-6
Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions	Form AD-1048 – May be provided as a courtesy for the Contractor's use
Certification for Contracts, Grants & Loans	RD Instruction 1940-Q Exhibit A-1
Notice of Award	EJCDC C-510 Note: Owner will obtain concurrence of State Engineer prior to issuing award.
Agreement between Owner and Contractor for Construction Contract (Stipulated Price)	EJCDC C-520 as modified by RUS Bulletin 1780-26 Attachment B.5
Performance Bond	EJCDC C-610. Note: the bond will be at least 100% of the bid amount.
Payment Bond	EJCDC C-615. Note: the bond will be at least 100% of the bid amount.
Certificate of Owner's Attorney / Agency Concurrence	RUS Bulletin 1780-26 Attachment A.1
Standard General Conditions of the Construction Contract	EJCDC C-700. Note: modifications to C-700 should be made in C-800, Supplementary Conditions.
Supplementary General Conditions of the Construction Contract	EJCDC C-800 as modified by RUS Bulletin 1780-26 Attachment B.6
Special Conditions	May be added if desired by Engineer
State Wage Rates	State Wage Rates if required by State Law.

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ATTACHMENT B.1 – CONTRACT DOCUMENT CHECKLIST

Federal Wage Rates	Davis Bacon Wage Rates. Note: only required if other funding source requires
Davis Bacon 29 CFR 5.5	Rural Development version. Note: only required if Federal Wage Rates have been included
Notice to Proceed	EJCDC C-550
Project Sign (Temporary Construction Sign)	Consult State Engineer for current requirements.
Application for Payment	EJCDC C-620
Work Change Directive	EJCDC C-940
Change Order	EJCDC C-941
Field Order	EJCDC C-942
Sample Language for Contractor's Certification of Compliance	RUS Bulletin 1780-26 <u>Attachment A.3</u>
Sample Language for Manufacturer's Certification of Compliance	RUS Bulletin 1780-26 <u>Attachment A.4</u>
Certificate of Substantial Completion	EJCDC C-625
Notice of Acceptability of Work	EJCDC C-626
Mitigation Requirements from NEPA Documentation	To be provided in drawings, specifications, Supplementary Conditions (C-800, SC 19.10.A.5)
Drawings and Specifications	Engineer Submittal

ATTACHMENT A.5 – ENGINEERS CERTIFICATIONS

Notes to User:

1. *This attachment provides sample language for the statements needed for the Engineer of Record's certification; it should be submitted with the bid package to the Agency for concurrence for authorization to bid by Agency.*
2. *This certification is not intended to be a warranty in any way but rather the designer's professional opinion that to the best of their knowledge the documents comply.*
3. *This certification does not need to be included in the contract documents.*
4. *The language can be modified.*

Modification Example: If the project is subject to AIS, the BABAA reference should be replaced with language such as "American Iron and Steel (AIS) requirements mandated by Section 746 of Title VII of the Consolidated Appropriations Act of 2017 and subsequent annual appropriations for WWD programs."

The final Drawings and Specifications, construction Contract Documents, Bidding Documents, procurement documents, and any other final design phase deliverables, comply with all applicable federal requirements including the Build America, Buy America Act (BABAA) requirements under Title IX of the Infrastructure Investment and Jobs Act (IIJA), Pub. L. 117-58, §§ 70901-70953, or are the subject of a waiver approved by the Secretary of Agriculture or designee. This includes the following:

- The Engineers Joint Contract Documents Committee (EJCDC) documents have been used, and all acceptable revisions identified in this Bulletin have been made in accordance with the terms of the license agreement, which states in part that the Engineer "will plainly show all changes to the standard EJCDC text, using 'Track Changes' (redline/strikeout), highlighting, or other means of clearly indicating additions and deletions." Such other means may include attachments indicating changes (e.g. Supplementary Conditions modifying the General Conditions).
- Any building(s) designed for this Project will comply with the requirements of the Architectural Barriers Act (ABA) of 1968, the Americans with Disabilities Act (ADA) of 1990, Section 504 of the Rehabilitation Act of 1973, and any federal, state, or local accessibility standards.
- Any building(s) designed for this Project will comply with the Seismic Safety of Federally Assisted New Building Construction requirements of 7 CFR part 1792, and any federal, state, or local standards.
- All referenced Products and Construction Materials in the Drawings, Specifications, and Bidding Documents for the Project comply with BABAA.
- All referenced Products and Construction Materials to be referenced in the Addenda, executed Contracts, and Change Orders will comply with BABAA.

William Levi Hiatt, P.E.
City Engineer
City of Mount Airy



3.12.2025

Engineer Name and Title
Engineering Company Name

Date

Franklin Street Streetscape and Parking Lot Improvements

TABLE OF CONTENTS

BIDDING REQUIREMENTS

Advertisement for Bids
Instructions to Bidders
Bid Form *
Bid Bond *

- Note: All items marked with an asterisk, *, are required to be submitted with Contractor's Bid.

CONTRACT DOCUMENTS

Notice of Award
Agreement
Performance Bond
Labor and Material Payment Bond
Notice To Proceed
Application for Payment
Work Change Directive
Contract Change Order Form
Certificate of Substantial Completion
Contractor's Release of Liens
Affidavit of Payment of Claims

GENERAL CONDITIONS AND PROVISIONS

EJCDC Standard General Conditions
EJCDC Supplementary Conditions

TECHNICAL SPECIFICATIONS

City of Mount Airy Construction Specifications

BIDDING REQUIREMENTS

**ADVERTISEMENT FOR BIDS
CITY OF MOUNT AIRY
MOUNT AIRY, NORTH CAROLINA
Franklin Street Streetscape
and Parking Lot Improvements**

Sealed bids for construction of the **Franklin Street Streetscape and Parking Lot Improvements Project** will be received by the City of Mount Airy, North Carolina, hereinafter called the City, in the Mount Airy City Engineers office in the Public Works Building, 440 East Pine Street, Mount Airy, North Carolina until **2:00 p.m.** local time on **Tuesday, July 1, 2025**, and then at said location publicly opened and read.

Construction includes:

Furnishing and installing all granite curb, sidewalks, brick pavers, asphalt, etc. required for improving streetscape and parking lot along Franklin Street in downtown Mount Airy as described in the specifications and as shown on the contract drawings.

NOTE: Prospective bidders are hereby notified that they must have proper license under the state laws governing their trade. General contractors are notified that Chapter 87, Article 1, General Statutes of North Carolina will be observed in receiving and awarding this contract.

Mandatory Pre-Bid Meeting

An open mandatory pre-bid meeting will be held for all interested bidders on **Monday June 16, at 10:00 AM** in the office of Mount Airy Public Works, 440 E. Pine Street, Mount Airy, NC 27030. The meeting will address project questions, issues, bidding procedures and bid forms.

BIDDERS MUST COMPLY WITH ALL SAFETY REQUIREMENTS AS DETAILED IN THE CONTRACT DOCUMENTS. FAILURE TO PROVIDE DOCUMENTATION OF AN ADEQUATE SAFETY PROGRAM SHALL BE CAUSE FOR THE BID TO BE REJECTED.

Bidders must comply with the provisions of the N. C. Contractor's Licensing Act of 1925, as amended.

The City reserves the right to reject any proposal for failure to comply with all requirements of the Notice or of any of the Contract Documents; however, it may waive any minor defects or informalities at its discretion. The City further reserves the right to reject any and all proposals or to award the Contract which in its judgment is in the best interest of the City.

Contract Documents may be examined at the following location:

Public Works Department, City of Mount Airy, 440 East Pine Street, Mount Airy, NC

On-line at:

Dodge Construction Network (subscription required)

**HCAC/Carolinas AGC via iSqFt (subscription required)
NC Commerce Procurement - commerce.nc.gov**

Copies of the Contract Documents may be obtained at the City of Mount Airy City, Engineers office in the Municipal Services Building, 440 East Pine Street, Mount Airy, North Carolina 27030, Phone (336) 786-3580, e-mail lhiatt@mountairymountairy.org, upon payment of a non-refundable fee of \$ 100 for each set. A CD or link containing PDF files of the Bidding Documents may be obtained for a non-refundable fee of \$20.

FIVE PERCENT (5%) BID DEPOSIT IS REQUIRED AND MUST BE SEALED IN A SEPARATE ENVELOPE AND ATTACHED TO THE OUTSIDE OF THE ENVELOPE CONTAINING THE PROPOSAL.

THE CITY WILL NOT BE RESPONSIBLE FOR FULL OR PARTIAL SETS OF CONTRACT DOCUMENTS, INCLUDING ANY ADDENDUM, OBTAINED FROM ANY OTHER SOURCE.

NOTICE: The City of Mount Airy maintains an email address list of individuals and companies who wish to be notified by email when a construction contract is let for bid. To be added to this list please send the request to Jake Freeman at jfreeman@mountairymountairy.org or 440 East Pine Street, Mount Airy, NC 27030. The City does not notify potential bidders and others of new projects by telephone.

Domestic Preference

This project is subject to the Build America, Buy America Act (BABAA) requirements under Title IX of the Infrastructure Investment and Jobs Act (IIJA), Pub. L. 117-58, §§ 70901-70953. Absent an approved waiver, all iron, steel, manufactured products, and construction materials used in this project must be produced in the United States.

The following waivers apply to this Contract: BABAA De Minimis, Small Grants, and Minor.

Female and minority-owned businesses are encouraged to submit bids.

By Order of the Board of Commissioners of the City of Mount Airy, North Carolina.

Melissa Brame
City Clerk

Dated: May 28, 2025

INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACT

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ARTICLE 1—DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. *Issuing Office*—The office from which the Bidding Documents are to be issued, and which registers plan holders.
 - B. Domestic Preference—The Build America, Buy America Act (BABAA) requirements under Title IX of the Infrastructure Investment and Jobs Act (IIJA), Pub. L. 117-58, §§ 70901-70953.

ARTICLE 2—BIDDING DOCUMENTS

- 2.01 Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Agreement for a list of the Contract Documents. It is Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.
- 2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use. Authorization to download documents, or other distribution, includes the right for plan holders to print documents solely for their use, and the use of their prospective Subcontractors and Suppliers, provided the plan holder pays all costs associated with printing or reproduction. Printed documents may not be re-sold under any circumstances.
- 2.03 Bidder may register as a plan holder and obtain complete sets of Bidding Documents, in the number and format stated in the Advertisement or invitation to bid, from the Issuing Office. Bidders may rely that sets of Bidding Documents obtained from the Issuing Office are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- 2.04 Plan rooms (including construction information subscription services, and electronic and virtual plan rooms) may distribute the Bidding Documents, or make them available for examination. Those prospective bidders that obtain an electronic (digital) copy of the Bidding Documents from a plan room are encouraged to register as plan holders from the Bidding Documents Website or Issuing Office. Owner is not responsible for omissions in Bidding Documents or other documents obtained from plan rooms, or for a Bidder's failure to obtain Addenda from a plan room.
- 2.05 *Electronic Documents*
- A. When the Bidding Requirements indicate that electronic (digital) copies of the Bidding Documents are available, such documents will be made available to the Bidders as Electronic Documents in the manner specified.
 - 1. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf) that is readable by Adobe Acrobat Reader. It is the intent of the Engineer and Owner that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because the Owner and Engineer cannot totally control the transmission and

receipt of Electronic Documents nor the Contractor's means of reproduction of such documents, the Owner and Engineer cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.

- B. Unless otherwise stated in the Bidding Documents, the Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.05.A above. However, Bidder assumes all risks associated with differences arising from transmission/receipt of Electronic Documents versions of Bidding Documents and reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information that is not explicitly contained in printed paper versions of the documents, and for Bidder's reliance upon such derived information.

ARTICLE 3—QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within five (5) days of Owner's request, Bidder must submit the following information:
 - A. Written evidence establishing its qualifications such as financial data, previous experience, and present commitments.
 - B. A written statement that Bidder is authorized to do business in the state where the Project is located, or a written certification that Bidder will obtain such authority prior to the Effective Date of the Contract.
 - C. Bidder's state or other contractor license number, if applicable.
 - D. Subcontractor and Supplier qualification information.
 - E. Other required information regarding qualifications.
- 3.02 "DELETED"
- 3.03 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.04 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

ARTICLE 4—PRE-BID CONFERENCE

- 4.01 A non-mandatory pre-bid conference will be held at the time and location indicated in the Advertisement or invitation to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference; however, attendance at this conference is not required to submit a Bid.
- 4.02 Information presented at the pre-Bid conference does not alter the Contract Documents. Owner will issue Addenda to make any changes to the Contract Documents that result from discussions at the pre-

Bid conference. Information presented, and statements made at the pre-bid conference will not be binding or legally effective unless incorporated in an Addendum.

ARTICLE 5—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER’S SAFETY PROGRAM; OTHER WORK AT THE SITE

5.01 *Site and Other Areas*

- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

5.02 *Existing Site Conditions*

A. *Subsurface and Physical Conditions; Hazardous Environmental Conditions*

- 1. The Supplementary Conditions identify the following regarding existing conditions at or adjacent to the Site:
 - a. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data.
 - b. Those drawings known to Owner of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data.
 - c. Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
 - d. Technical Data contained in such reports and drawings.
- 2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
- 3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05 of the General Conditions, and not in the drawings referred to in Paragraph 5.02.A of these Instructions to Bidders. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

5.03 *Site Visit and Testing by Bidders*

- A. Bidder is required to visit the Site and conduct a thorough visual examination of the Site and adjacent areas. During the visit the Bidder must not disturb any ongoing operations at the Site.
- B. A Site visit is scheduled following the pre-bid conference. Maps to the Site will be available at the pre-Bid conference.
- C. Bidders visiting the Site are required to arrange their own transportation to the Site.
- D. All access to the Site other than during a regularly scheduled Site visit must be coordinated through the following Owner or Engineer contact for visiting the Site. Bidder must conduct the required Site visit during normal working hours.
- E. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- F. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder general access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site. Bidder is responsible for establishing access needed to reach specific selected test sites.
- G. Bidder must comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- H. Bidder must fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Express Representations and Certifications in Bid Form, Agreement*

- A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder's examination of Project documentation, Site visit, and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.
- B. If Bidder is awarded the Contract, Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

ARTICLE 7—INTERPRETATIONS AND ADDENDA

- 7.01 Owner on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.
- 7.02 Bidder shall submit all questions about the meaning or intent of the Bidding Documents to Engineer in writing.
- 7.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all registered plan holders. Questions received less than ten days prior to the date for opening of Bids may not be answered.
- 7.04 Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

ARTICLE 8—BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of **5.00%** percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions. Such Bid bond will be issued in the form included in the Bidding Documents. **Bid security must be at least 5% of the Bidder's maximum Bid price.**
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract and furnish the required Contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited, in whole in the case of a penal sum bid bond, and to the extent of Owner's damages in the case of a damages-form bond. Such forfeiture will be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

ARTICLE 9—CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Agreement.
- 9.02 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 10—SUBSTITUTE AND "OR EQUAL" ITEMS

- 10.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those "or-equal" or substitute or materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum. No item of material or equipment will be considered by Engineer as an "or-equal" or substitute unless written request for approval has been submitted by Bidder and has been received by Engineer within 10 days of the issuance of the Advertisement for Bids or invitation to Bidders. Each such request must comply with the requirements of Paragraphs 7.05 and 7.06 of the General Conditions, and the review of the request will be governed by the principles in those paragraphs. **Each such request shall include the Manufacturer's Certification for Compliance with AIS. Refer to the Manufacturer's Certification form provided in these construction Contract Documents.** The burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all registered Bidders. Bidders cannot rely upon approvals made in any other manner. **Substitutes and "or-equal" materials and equipment may be proposed by Contractor in accordance with Paragraphs 7.05**

and 7.06 of the General Conditions after the Effective Date of the Contract. Each such request shall include Manufacturer's Certification letter to document compliance with AIS requirements of Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference, if applicable. Refer to Manufacturer's Certification Letter provided in these Contract Documents.

- 10.02 All prices that Bidder sets forth in its Bid will be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.

ARTICLE 11—SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 11.01 The apparent Successful Bidder, and any other Bidder so requested, must submit to Owner a list of the Subcontractors or Suppliers proposed for the following portions of the Work within five days after Bid opening.
- 11.02 If requested by Owner, such list must be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor or Supplier. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor or Supplier, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder will submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 11.03 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors and Suppliers. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor or Supplier, so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.07 of the General Conditions.

11.04 – The Contractor shall not award work to Subcontractor(s) in excess of the limits stated in SC 7.07A.

ARTICLE 12—PREPARATION OF BID

- 12.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form. A Bid price must be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
- B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."

- 12.02 If Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.
- 12.03 A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown.
- 12.04 A Bid by a partnership must 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 address of the partnership must be shown.
- 12.05 A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.
- 12.06 A Bid by an individual must show the Bidder's name and official address.
- 12.07 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.
- 12.08 All names must be printed in ink below the signatures.
- 12.09 The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.
- 12.10 Postal and e-mail addresses and telephone number for communications regarding the Bid must be shown.
- 12.11 The Bid must contain evidence of Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.
- 12.12 If Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Bidder's licensure, or Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach such certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.

ARTICLE 13—BASIS OF BID

13.01 *Lump Sum*

- A. Bidders must submit a Bid on a lump sum basis as set forth in the Bid Form.

13.02 *Base Bid with Alternates*

- A. Bidders must submit a Bid on a lump sum basis for the base Bid and include a separate price for each alternate described in the Bidding Documents and as provided for in the Bid Form. The price for each alternate will be the amount added to or deleted from the base Bid if Owner selects the alternate.
- B. In the comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form.

13.03 *Sectional Bids*

- A. Bidders may submit a Bid on any individual section or any combination of sections, as set forth in the Bid Form.
- B. Submission of a Bid on any section signifies Bidder's willingness to enter into a Contract for that section alone at the price offered.
- C. If Bidder submits Bids on individual sections and a Bid based on a combination of those sections, such combined Bid need not be the sum of the Bids on the individual sections.
- D. Bidders offering a Bid on one or more sections must be capable of completing the Work covered by those sections within the time period stated in the Agreement.

13.04 *Unit Price*

- A. Bidders must submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity", which Owner or its representative has set forth in the Bid Form, for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
- C. 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.

13.05 *Allowances*

- A. For cash allowances the Bid price must include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

ARTICLE 14—SUBMITTAL OF BID

- 14.01 The Bidding Documents include one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 2 of the Bid Form.
- 14.02 A Bid must be received no later than the date and time prescribed and at the place indicated in the Advertisement or invitation to bid and must be enclosed in a plainly marked package with the Project title, and, if applicable, the designated portion of the Project for which the Bid is submitted, the name and address of Bidder, and must be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid must be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid must be addressed to the location designated in the Advertisement.
- 14.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 15—MODIFICATION AND WITHDRAWAL OF BID

- 15.01 An unopened Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 15.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 15.03 If within 72 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, the Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, the Bidder will be disqualified from further bidding on the Work.

ARTICLE 16—OPENING OF BIDS

- 16.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 17—BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 18—EVALUATION OF BIDS AND AWARD OF CONTRACT

- 18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.
- 18.02 Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.
- 18.03 If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.
- 18.04 If Owner awards the contract for the Work, such award will be to the responsible Bidder submitting the lowest responsive Bid.
- 18.05 *Evaluation of Bids*

- A. In evaluating Bids, Owner will consider whether the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
 - B. In the comparison of Bids, alternates will be applied in the same order of priority as listed in the Bid Form. To determine the Bid prices for purposes of comparison, Owner will announce to all bidders a “Base Bid plus alternates” budget after receiving all Bids, but prior to opening them. For comparison purposes alternates will be accepted, following the order of priority established in the Bid Form, until doing so would cause the budget to be exceeded. After determination of the Successful Bidder based on this comparative process and on the responsiveness, responsibility, and other factors set forth in these Instructions, the award may be made to said Successful Bidder on its base Bid and any combination of its additive alternate Bids for which Owner determines funds will be available at the time of award.
 - C. For determination of the apparent low Bidder(s) when sectional bids are submitted, Bids will be compared on the basis of the aggregate of the Bids for separate sections and the Bids for combined sections that result in the lowest total amount for all of the Work.
 - D. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.
- 18.06 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 18.07 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.
- 18.08 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid for the option selected by the Owner; i.e. either Base Bid alone or Base Bid plus the Additive Bid Item(s) selected. If any Additive Bid Items are to be accepted, they will be taken in the order as presented.

ARTICLE 19—BONDS AND INSURANCE

- 19.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner’s requirements as to performance and payment bonds, other required bonds (if any), and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by required bonds and insurance documentation.
- 19.02 Article 8, Bid Security, of these Instructions, addresses any requirements for providing bid bonds as part of the bidding process.

ARTICLE 20—SIGNING OF AGREEMENT

- 20.01 When Owner issues a Notice of Award to the Successful Bidder, it will be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in

the Agreement. Within 15 days thereafter, Successful Bidder must execute and deliver the required number of counterparts of the Agreement and any bonds and insurance documentation required to be delivered by the Contract Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 21—SALES AND USE TAXES

- 21.01 Owner is not exempt from state sales and use taxes on materials and equipment to be incorporated in the Work. Said taxes must be included in the Bid. Refer to Paragraph SC-7.10 of the Supplementary Conditions for additional information.

ARTICLE 22—CONTRACTS TO BE ASSIGNED

22.01 *Not Applicable*

ARTICLE 23 – FEDERAL REQUIREMENTS

- 23.01 If the contract price is in excess of \$100,000, provisions of the Contract Work Hours and Safety Standards Act at 29 CFR 5.5(b) apply.
- 23.02 Federal requirements at Article 19 of the Supplementary Conditions apply to this Contract.
- 23.03 **Build America, Buy America Act (BABAA)** requirements apply to this project.
- 23.04 Retainage - A federal preemption to NCGS 143-134.1 applies to this project. Retainage shall be in accordance with Paragraph 6.02 of the Agreement between Owner and Contractor.

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.

BID FORM FOR CONSTRUCTION CONTRACT

FRANKLIN STREET PARKING LOT

PREPARED BY



Endorsed by



EJCDC® C-410, Bid Form for Construction Contract.

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Modified to include RD edits from RUS Bulletin 1780-26 (6/16/2020).

BID FORM FOR CONSTRUCTION CONTRACT FRANKLIN STREET PARKING LOT

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

**City of Mount Airy Public Works Department
440 East Pine Street
Mount Airy, NC 27030**

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security;
- B. List of Proposed Subcontractors;
- C. List of Proposed Suppliers;
- D. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids;
- E. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids;
- F. Required Bidder Qualification Statement with supporting data
- G. If Bid amount exceeds \$10,000, signed Compliance Statement (RD 400-6). Refer to specific equal opportunity requirements set forth in the Supplementary Conditions of the Construction Contract (EJCDC C-800);
- H. If Bid amount exceeds \$25,000, signed Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions (AD-1048);
- I. If Bid amount exceeds \$100,000, signed RD Instruction 1940-Q Exhibit A-1, Certification for Contracts, Grants, and Loans.

ARTICLE 3—BASIS OF BID— LUMP SUM BID AND UNIT PRICES

3.01 Lump Sum Bids

- A. Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

LUMP SUM PART A – FRANKLIN STREET STREETScape – WILLOW TO MAIN

	Quantity	Units	Unit Price	Bid
<i>Mobilization/Incidentals/Demo</i>	1	LS		
<i>Striping</i>	1	LS		
<i>Landscaping (Including Tree Grates)</i>	1	LS		
<i>Business Underground Power Conversion</i>	1	LS		
<i>Brick Paver Stamped Asphalt Crosswalk</i>	1	LS		
		Total		

TOTAL PART A LUMP SUM _____
 _____ AND ____/100 DOLLARS (\$ _____).

LUMP SUM PART B – FRANKLIN STREET PARKING LOT

Description	Quantity	Units	Unit Price	Bid
<i>Mobilization/Incidentals/Demo</i>	1	LS		
<i>Striping</i>	1	LS		
<i>Landscaping (Including Tree Grates)</i>	1	LS		
<i>Tesla Supercharging Station</i>	2	LS		
		Total		

TOTAL PART B LUMP SUM _____
 _____ AND ____/100 DOLLARS (\$ _____).

3.02 Unit Price Items

- A. Bidder will complete the Work in accordance with the Contract Documents for the following unit price(s):

UNIT PRICE PART A – FRANKLIN STREET STREETScape – WILLOW TO MAIN

	Quantity	Units	Unit Price	Bid
<i>6" Mount Airy Granite Curb</i>	1250	LF		
<i>Scored & Brick Banded Concrete Sidewalk</i>	1000	SY		
<i>ABC Stone for Sidewalks (4")</i>	300	TON		
<i>4" Schedule 40 Conduit</i>	2000	LF		
<i>2" Schedule 40 Conduit</i>	600	LF		
<i>2'x5' Truncated Domes</i>	8	EA		

<i>Decorative Parking/Traffic Signs</i>	6	EA		
		Total		

TOTAL PART A UNIT PRICE _____

_____ AND ____/100 DOLLARS (\$ _____).

UNIT PRICE PART B – FRANKLIN STREET PARKING LOT

<i>Description</i>	<i>Quantity</i>	<i>Units</i>	<i>Unit Price</i>	<i>Bid</i>
<i>Concrete Curb & Gutter</i>	2200	LF		
<i>Concrete Sidewalk</i>	500	SY		
<i>ABC Stone for Sidewalks</i>	150	TON		
<i>2" Schedule 40 Conduit</i>	1700	LF		
<i>2'x5' Truncated Domes</i>	4	EA		
<i>ABC Stone for Asphalt Base (8")</i>	4000	TON		
<i>Asphalt Binder (2")</i>	1000	TON		
<i>9.5SB Asphalt Surface Coat (2")</i>	1000	TON		
<i>Decorative Parking Signs</i>	9	EA		
		Total		

TOTAL PART B UNIT PRICE _____

_____ AND ____/100 DOLLARS (\$ _____)

TOTAL BASE BID (Sum All Lump Sum and Unit Prices Parts A and B) _____

_____ AND ____/100 DOLLARS (\$ _____).

ARTICLE 4—TIME OF COMPLETION

- 4.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 4.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 5—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

5.01 *Bid Acceptance Period*

- A. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

5.02 *Instructions to Bidders*

- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

5.03 *Receipt of Addenda*

- A. Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Bidder's Representations*

- A. In submitting this Bid, Bidder represents the following:
1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
 2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work, **including all Build America Buy America Act (BABAA) standards.**
 4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
 5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
 6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be

employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.

7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

6.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. 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. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
 - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
 - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner 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 Owner, 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.

BIDDER hereby submits this Bid as set forth above:

Bidder:

(typed or printed name of organization)

By:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

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

Attest:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

Address for giving notices:

Bidder's Contact:

Name:

(typed or printed)

Title:

(typed or printed)

Phone:

Email:

Address:

Bidder's Contractor License No.:

(if applicable)

BID BOND (PENAL SUM FORM)

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

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

COMPLIANCE STATEMENT

This statement relates to a proposed contract with _____

(Name of borrower or grantee)

who expects to finance the contract with assistance from either the Rural Housing Service (RHS), Rural Business-Cooperative Service (RBS), or the Rural Utilities Service (RUS) or their successor agencies, United States Department of Agriculture (whether by a loan, grant, loan insurance, guarantee, or other form of financial assistance). I am the undersigned bidder or prospective contractor, I represent that:

1. I ☐ have, ☐ have not, participated in a previous contract or subcontract subject to Executive Order 11246 (regarding equal employment opportunity) or a preceding similar Executive Order.
2. If I have participated in such a contract or subcontract, I ☐ have, ☐ have not, filed all compliance reports that have been required to file in connection with the contract or subcontract.

☐ If the proposed contract is for \$50,000 or more: or ☐ If the proposed nonconstruction contract is for \$50,000 or more and I have 50 or more employees, I also represent that:
3. I ☐ have, ☐ have not previously had contracts subject to the written affirmative action programs requirements of the Secretary of Labor.
4. If I have participated in such a contract or subcontract, ☐ I have, ☐ have not developed and placed on file at each establishment affirmative action programs as required by the rules and regulations of the Secretary of Labor.

I understand that if I have failed to file any compliance reports that have been required of me, I am not eligible and will not be eligible to have my bid considered or to enter into the proposed contract unless and until I make an arrangement regarding such reports that is satisfactory to either the RHS, RBS or RUS, or to the office where the reports are required to be filed.

I also certify that I do not maintain or provide for my employees any segregated facilities at any of my establishments, and that I do not permit my employees to perform their services at any location, under my control, where segregated facilities are maintained. I certify further that I will not maintain or provide for my employees any segregated facilities at any of my establishments, and that I will not permit my employees to perform their services at any location, under my control, where segregated facilities are maintained. I agree that a breach of this certification is a violation of the Equal Opportunity clause in my contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and wash rooms, restaurants and other eating areas time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. I further agree that (except where I have obtained identical certifications for proposed subcontractors for specific time periods) I will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that I will retain such certifications in my files; and that I will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays the valid OMB control number. The valid OMB control number for this information collection is 0575-0018. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

U.S. DEPARTMENT OF AGRICULTURE

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989, Federal Register (pages 4722-4733). Copies of the regulations may be obtained by contacting the Department of Agriculture agency with which this transaction originated.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Organization Name

PR/Award Number or Project Name

Name(s) and Title(s) of Authorized Representative(s)

Signature(s)

Date

Instructions for Certification

1. By signing and submitting this form, the prospective lower tier participant is providing the certification set out on the reverse side in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," without modification, in all lower tier covered transaction and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

**AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS
AND RELEASE OF LIENS**

TO:

PROJECT:

By this instrument, the undersigned hereby certifies that on this date, he has been paid in full less retainage for all materials and equipment furnished, for all labor and services performed, and for all know indebtedness and claims against the undersigned for damages arising in any manner on or against the PROJECT, its land, improvements, and equipment of every kind. Therefore, the undersigned does hereby waive and/or release any and all liens against the PROJECT as of the ____ day of _____, in the year of _____.

COMPANY: _____

BY: _____

TITLE: _____

STATE OF: _____

COUNTY OF: _____

Before me the undersigned authority on this date personally appeared _____, known to me to be the person whose name is subscribed to the foregoing instrument, and, being first duly sworn, acknowledged to me that he executed the same for the purposes and consideration therein expressed and declared to me that the statements contained therein are true.

Sworn and subscribed to before me this _____ day of _____ year of _____.

My commission expires:

Notary Public in and for said
State and County

CERTIFICATION FOR CONTRACTS, GRANTS AND LOANS

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant or Federal loan, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant or loan.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant or loan, the undersigned shall complete and submit Standard Form - LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including contracts, subcontracts, and subgrants under grants and loans) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

(name)

(date)

(title)

000

ADDITIONAL HUB DOCUMENTS

State of North Carolina AFFIDAVIT A – Listing of Good Faith Efforts

County of _____

(Name of Bidder)

Affidavit of _____

I have made a good faith effort to comply under the following areas checked:

Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive. (1 NC Administrative Code 30 I.0101)

- ☐ **1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- ☐ **2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- ☐ **3 – (15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- ☐ **4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- ☐ **5 – (10 pts)** Attended prebid meetings scheduled by the public owner.
- ☐ **6 – (20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- ☐ **7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- ☐ **8 – (25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- ☐ **9 – (20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- ☐ **10 - (20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

**State of North Carolina --AFFIDAVIT B-- Intent to Perform Contract
with Own Workforce.**

County of _____

Affidavit of _____
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the _____
_____ contract.
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement. The Bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20__

Notary Public _____

My commission expires _____

Do not submit with bid Do not submit with bid Do not submit with bid Do not submit with bid

State of North Carolina - AFFIDAVIT C - Portion of the Work to be Performed by HUB Certified/Minority Businesses
County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the portion of the work to be executed by HUB certified/minority businesses as defined in GS143-128.2(g) and 128.4(a),(b),(e) is equal to or greater than 10% of the bidders total contract price, then the bidder must complete this affidavit.
This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

Affidavit of _____ I do hereby certify that on the
(Name of Bidder)

(Project Name)
Project ID# _____ Amount of Bid \$ _____

I will expend a minimum of _____% of the total dollar amount of the contract with minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below.

Attach additional sheets if required

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

*Minority categories: Black, African American (B), Hispanic (H), Asian American (A) American Indian (I), Female (F) Socially and Economically Disadvantaged (D)

** HUB Certification with the state HUB Office required to be counted toward state participation goals.

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

AFFIDAVIT D – Good Faith Efforts

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the goal of 10% participation by HUB Certified/ minority business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts:

Affidavit of _____ I do hereby certify that on the
(Name of Bidder)

(Project Name)
Project ID# _____ Amount of Bid \$ _____

I will expend a minimum of _____% of the total dollar amount of the contract with HUB certified/ minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. (Attach additional sheets if required)

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

*Minority categories: Black, African American (B), Hispanic (H), Asian American (A) American Indian (I), Female (F) Socially and Economically Disadvantaged (D)

**** HUB Certification with the state HUB Office required to be counted toward state participation goals.**

Examples of documentation that may be required to demonstrate the Bidder's good faith efforts to meet the goals set forth in these provisions include, but are not necessarily limited to, the following:

- A. Copies of solicitations for quotes to at least three (3) minority business firms from the source list provided by the State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.
- B. Copies of quotes or responses received from each firm responding to the solicitation.
- C. A telephone log of follow-up calls to each firm sent a solicitation.
- D. For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
- E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
- F. Copy of pre-bid roster
- G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
- H. Letter detailing reasons for rejection of minority business due to lack of qualification.
- I. Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

Do not submit with the bid Do not submit with the bid Do not submit with the bid Do not submit with the bid Do not submit with the bid

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

APPENDIX E

MBE DOCUMENTATION FOR CONTRACT PAYMENTS

Prime Contractor: _____

Address & Phone: _____

Project Name: _____

Project ID: _____

Pay Application #: _____ Period: _____

The following is a list of payments made to Minority Business Enterprises on this project for the above-mentioned period.

MBE FIRM NAME	* TYPE OF MBE	AMOUNT PAID THIS MONTH (With This Pay App)	TOTAL PAYMENTS TO DATE	TOTAL AMOUNT COMMITTED

*Minority categories: Black (B), Hispanic (H), Asian American (AA), American Indian (AI),
White Female (WF), Socially and Economically Disadvantaged (SED)

Approved/Certified By:

Name

Title

Date

Signature

SUBMIT WITH EACH PAY REQUEST - FINAL PAYMENT - FINAL REPORT

CONTRACT DOCUMENTS

NOTICE OF AWARD

Date of Issuance:

Owner:

Owner's Project No.:

Engineer:

Engineer's Project No.:

Project:

Contract Name:

Bidder:

Bidder's Address:

You are notified that Owner has accepted your Bid dated **[date]** for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

[Describe Work, alternates, or sections of Work awarded]

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

[Number of copies sent] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

☐ Drawings will be delivered separately from the other Contract Documents.

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

1. Deliver to Owner **[number of copies sent]** counterparts of the Agreement, signed by Bidder (as Contractor).
2. Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any): **[Describe other conditions that require Successful Bidder's compliance]**

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

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

Owner: **[Full formal name of Owner]**

By (signature):

Name (printed):

Title:

Copy: Engineer

**AGREEMENT BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

This Agreement is by and between _____ (“Owner”) and
_____ (“Contractor”).

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

Owner and Contractor hereby agree as follows:

ARTICLE 1—WORK

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

ARTICLE 2—THE PROJECT

The Project, of which the Work under the Contract Documents is a part, is generally described as follows:
Franklin Street Streetscape and Parking Lot Improvements

The proposed project includes furnishing and installing all granite curb, sidewalks, brick pavers, asphalt, etc. required for improving streetscape and parking lot along Franklin Street in downtown Mount Airy as described in the specifications and as shown on the contract drawings.

ARTICLE 3—THE ENGINEER

3.01 The Owner has retained the City of Mount Airy Engineering Division (“Engineer”) to act as Owner’s representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.

3.02 The part of the Project that pertains to the Work has been designed by the City of Mount Airy Engineering Division.

ARTICLE 4—CONTRACT TIMES

4.01 *Time is of the Essence*

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

4.02 *Contract Times: Days*

A. The Work will be substantially complete within **90** days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and

ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 120 days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
1. *Substantial Completion*: Contractor shall pay Owner \$1000 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.
 2. *Completion of Remaining Work*: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$ 1000 for each day that expires after such time until the Work is completed and ready for final payment.
 3. Liquidated damages for failing to timely attain Milestones, Substantial Completion, and final completion are not additive, and will not be imposed concurrently.
- B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

ARTICLE 5—CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract:
- A. For all Work other than Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item). Refer to the attached Bid Form
 - B. The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.
 - C. Total of Lump Sum Amount and Unit Price Work (subject to final Unit Price adjustment)
\$ _____.

- D. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6—PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

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

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on the basis of Contractor's Applications for Payment on or about the **25th** day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.
1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.
 - a. 95 percent of the value of the Work completed (with the balance being retainage).
 - b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion **of the entire construction to be provided under the construction Contract Documents**, Owner shall pay an amount sufficient to increase total payments to Contractor to **100** percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less **100** percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

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

6.04 *Consent of Surety*

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

6.05 *Interest*

A. All amounts not paid when due will bear interest at the rate of 5.00 percent per annum.

ARTICLE 7—CONTRACT DOCUMENTS

7.01 *Contents*

A. The Contract Documents consist of all of the following:

1. This Agreement.
2. Bonds:
 - a. Performance bond (together with power of attorney).
 - b. Payment bond (together with power of attorney).
3. General Conditions.
4. Supplementary Conditions.
5. Specifications as listed in the table of contents of the project manual (copy of list attached).
6. Drawings (not attached but incorporated by reference) consisting of 15 sheets with each sheet bearing the following general title: **Franklin Street Streetscape and Parking Lot Improvements**
7. Addenda (numbers to , inclusive).
8. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid
 - b. Notice to Proceed
 - c. Documentation submitted by Contractor prior to Notice of Award
9. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
 - e. Warranty Bond, if any.

- B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

ARTICLE 8—REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

8.01 Contractor's Representations

- A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
 - 1. Contractor has examined and carefully studied the Contract Documents, including Addenda.
 - 2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - 3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work, including all Domestic preference requirements.
 - 4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
 - 5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
 - 6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.
 - 7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

8.02 *Contractor's Certifications*

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

8.03 *Standard General Conditions*

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

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

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

Owner:

City of Mount Airy

(typed or printed name of organization)

By:

(individual's signature)

Date:

(date signed)

Name:

(typed or printed)

Title:

(typed or printed)

Attest:

(individual's signature)

Title:

(typed or printed)

Address for giving notices:

Designated Representative:

Name:

(typed or printed)

Title:

(typed or printed)

Address:

Phone:

Email:

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

Contractor:

(typed or printed name of organization)

By:

(individual's signature)

Date:

(date signed)

Name:

(typed or printed)

Title:

(typed or printed)

*(If **Type of Entity** is a corporation, a partnership, or joint venture, attach evidence of authority to sign)*

Attest:

(individual's signature)

Title:

(typed or printed)

Address for giving notices:

Designated Representative:

Name:

(typed or printed)

Title:

(typed or printed)

Address:

Phone:

Email:

License No.:

(where applicable)

State:

PERFORMANCE BOND

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

The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

1. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.
2. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:
 - 2.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
 - 2.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
 - 2.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
3. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
4. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 4.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
 - 4.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
 - 4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
 - 4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
 - 5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
 - 5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

5. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.
6. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
 - 6.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
 - 6.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
 - 6.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
7. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
8. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
9. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
10. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.
11. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
12. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
13. Definitions

- 13.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
- 13.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
- 13.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
- 13.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 13.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
14. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
15. Modifications to this Bond are as follows: **None**

PAYMENT BOND

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

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

reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

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

- 16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 - 16.1.4. A brief description of the labor, materials, or equipment furnished;
 - 16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 - 16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 - 16.1.7. The total amount of previous payments received by the Claimant; and
 - 16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
18. Modifications to this Bond are as follows: **None**

ATTACHMENT A.1 – CERTIFICATE OF OWNER’S ATTORNEY AND AGENCY
CONCURRENCE

**ATTACHMENT A.1 – CERTIFICATE OF OWNER’S ATTORNEY AND AGENCY
CONCURRENCE**

Notes to User:

1. *This attachment consists of two certificates, on a single page, to be attached to the Contract and signed upon execution.*
2. *The first is a certificate to be signed by the Owner’s attorney and the second is the concurrence to be signed by the State Engineer.*
3. *This page is to be inserted after the Agreement between Owner and Contractor for Construction Contract (Stipulated Price) (EJCDC C-520, 2018) in the Construction Contract Documents.*
4. *When the EJCDC C-522 Contract for Construction of a Small Project is used, attach this page to the C-522 document.*

CERTIFICATE OF OWNER’S ATTORNEY

PROJECT NAME:

CONTRACTOR NAME AND CONTRACT NUMBER:

I, the undersigned, _____, the duly authorized and acting legal representative of

_____, do hereby certify as follows: I have examined the attached Contract(s) and performance and payment bond(s) and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements is adequate and has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

Name

Date

ATTACHMENT A.1 – CERTIFICATE OF OWNER’S ATTORNEY AND AGENCY
CONCURRENCE

AGENCY CONCURRENCE

As lender or insurer of funds to defray the costs of this Contract, and without liability for any payments thereunder, the Agency hereby concurs in the form, content, and execution of this Agreement.

Agency Representative

Date

Name

CERTIFICATE OF THE DIRECTOR OF FINANCE

This instrument has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act.

This the _____ day of _____, 20____

Director of Finance

NOTICE TO PROCEED

Owner: _____ Owner's Project No.: _____
Engineer: _____ Engineer's Project No.: _____
Contractor: _____ Contractor's Project No.: _____
Project: _____
Contract Name: _____
Effective Date of Contract: _____

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on __
_____ pursuant to Paragraph 4.01 of the General Conditions.

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work will be done at the Site prior to such date.

In accordance with the Agreement:

The date by which Substantial Completion must be achieved is _____, and the date by which readiness for final payment must be achieved is _____.

Before starting any Work at the Site, Contractor must comply with the following:

[Note any access limitations, security procedures, or other restrictions]

Owner: _____
By *(signature)*: _____
Name *(printed)*: _____
Title: _____
Date Issued: _____
Copy: Engineer



Rural Development
U.S. DEPARTMENT OF AGRICULTURE

Together, America Prospers

Project Title

Sponsor/Developer

Official(s) or Sponsor Address

Architect or Engineer

second line

Contractor

second line

**This Project was Financed in Whole or in Part by the
United States Department of Agriculture (USDA) Rural Development**

USDA is an Equal Opportunity Provider, Employer, and Lender

Donald J. Trump, President of the United States
Brooke Rollins, Secretary of Agriculture

INSERT C-620 APPLICATION FOR PAYMENT HERE

Contractor's Application for Payment

Owner: _____ Engineer: _____ Contractor: _____ Project: _____ Contract: _____	Owner's Project No.: _____ Engineer's Project No.: _____ Contractor's Project No.: _____																																				
Application No.: _____ Application Date: _____																																					
Application Period: From _____ to _____																																					
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 70%;">1. Original Contract Price</td><td style="width: 10%; text-align: center;">\$</td><td style="width: 20%; text-align: right;">-</td></tr><tr><td>2. Net change by Change Orders</td><td style="text-align: center;">\$</td><td style="text-align: right;">-</td></tr><tr><td>3. Current Contract Price (Line 1 + Line 2)</td><td style="text-align: center;">\$</td><td style="text-align: right;">-</td></tr><tr><td>4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total)</td><td style="text-align: center;">\$</td><td style="text-align: right;">-</td></tr><tr><td>5. Retainage</td><td></td><td></td></tr><tr><td> a. _____ X \$ - Work Completed =</td><td style="text-align: center;">\$</td><td style="text-align: right;">-</td></tr><tr><td> b. _____ X \$ - Stored Materials =</td><td style="text-align: center;">\$</td><td style="text-align: right;">-</td></tr><tr><td> c. Total Retainage (Line 5.a + Line 5.b)</td><td style="text-align: center;">\$</td><td style="text-align: right;">-</td></tr><tr><td>6. Amount eligible to date (Line 4 - Line 5.c)</td><td style="text-align: center;">\$</td><td style="text-align: right;">-</td></tr><tr><td>7. Less previous payments (Line 6 from prior application)</td><td></td><td></td></tr><tr><td>8. Amount due this application</td><td style="text-align: center;">\$</td><td style="text-align: right;">-</td></tr><tr><td>9. Balance to finish, including retainage (Line 3 - Line 4 + Line 5.c)</td><td style="text-align: center;">\$</td><td style="text-align: right;">-</td></tr></table>		1. Original Contract Price	\$	-	2. Net change by Change Orders	\$	-	3. Current Contract Price (Line 1 + Line 2)	\$	-	4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total)	\$	-	5. Retainage			a. _____ X \$ - Work Completed =	\$	-	b. _____ X \$ - Stored Materials =	\$	-	c. Total Retainage (Line 5.a + Line 5.b)	\$	-	6. Amount eligible to date (Line 4 - Line 5.c)	\$	-	7. Less previous payments (Line 6 from prior application)			8. Amount due this application	\$	-	9. Balance to finish, including retainage (Line 3 - Line 4 + Line 5.c)	\$	-
1. Original Contract Price	\$	-																																			
2. Net change by Change Orders	\$	-																																			
3. Current Contract Price (Line 1 + Line 2)	\$	-																																			
4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total)	\$	-																																			
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a. _____ X \$ - Work Completed =	\$	-																																			
b. _____ X \$ - Stored Materials =	\$	-																																			
c. Total Retainage (Line 5.a + Line 5.b)	\$	-																																			
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7. Less previous payments (Line 6 from prior application)																																					
8. Amount due this application	\$	-																																			
9. Balance to finish, including retainage (Line 3 - Line 4 + Line 5.c)	\$	-																																			
Contractor's Certification The undersigned Contractor certifies, to the best of its knowledge, the following: (1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment; (2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such liens, security interest, or encumbrances); and (3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.																																					
Contractor: _____																																					
Signature: _____ Date: _____																																					
Recommended by Engineer By: _____ Title: _____ Date: _____	Approved by Owner By: _____ Title: _____ Date: _____																																				
Approved by Funding Agency By: _____ Title: _____ Date: _____	By: _____ Title: _____ Date: _____																																				

Progress Estimate - Lump Sum Work

Contractor's Application for Payment

Owner: _____					Owner's Project No.: _____			
Engineer: _____					Engineer's Project No.: _____			
Contractor: _____					Contractor's Project No.: _____			
Project: _____								
Contract: _____								
Application No.: _____					Application Period: From _____ to _____		Application Date: _____	
A	B	C	D	E	F	G	H	I
Item No.	Description	Scheduled Value (\$)	Work Completed		Materials Currently Stored (not in D or E) (\$)	Work Completed and Materials Stored to Date (D + E + F) (\$)	% of Scheduled Value (G / C) (%)	Balance to Finish (C - G) (\$)
			(D + E) From Previous Application (\$)	This Period (\$)				
Original Contract								
						-		-
						-		-
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Original Contract Totals		\$ -	\$ -	\$ -	\$ -	\$ -		\$ -

Contractor's Application for Payment

EJCDC C-620 Contractor's Application for Payment
 Lump Sum (c) 2018 National Society of Professional Engineers for EJCDC. All rights reserved. 3 of 6

Progress Estimate - Unit Price Work

Contractor's Application for Payment

Owner:		Owner's Project No.:	
Engineer:		Engineer's Project No.:	
Contractor:		Contractor's Project No.:	
Project:			
Contract:			

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

[illegible]

Contractor's Application for Payment

Owner:		Owner's Project No.:	
Engineer:		Engineer's Project No.:	
Contractor:		Contractor's Project No.:	
Project:			
Contract:			

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

A	B	C	D	E	F	G	H	I	J	K	L
Bid Item No.	Description	Contract Information				Work Completed		Materials Currently Stored (not in G) (\$)	Work Completed and Materials Stored to Date (H + I) (\$)	% of Value of Item (J / F) (%)	Balance to Finish (F - J) (\$)
		Item Quantity	Units	Unit Price (\$)	Value of Bid Item (C X E) (\$)	Estimated Quantity Incorporated in the Work	Value of Work Completed to Date (E X G) (\$)				
Change Orders											
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Stored Materials Summary

Contractor's Application for Payment

Owner:									Owner's Project No.:				
Engineer:									Engineer's Project No.:				
Contractor:									Contractor's Project No.:				
Project:													
Contract:													

Application No.:		Application Period:		From	to	Application Date:						
A	B	C	D	E	F	G	H	I	J	K	L	M
Item No. (Lump Sum Tab) or Bid Item No. (Unit Price Tab)	Supplier Invoice No.	Submittal No. (with Specification Section No.)	Description of Materials or Equipment Stored	Storage Location	Application No. When Materials Placed in Storage	Materials Stored			Incorporated in Work			Materials Remaining in Storage (I-L) (\$)
						Previous Amount Stored (\$)	Amount Stored this Period (\$)	Amount Stored to Date (G+H) (\$)	Amount Previously Incorporated in the Work (\$)	Amount Incorporated in the Work this Period (\$)	Total Amount Incorporated in the Work (J+K) (\$)	
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Totals						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

WORK CHANGE DIRECTIVE NO.: _____

Owner:

Owner's Project No.:

Engineer:

Engineer's Project No.:

Contractor:

Contractor's Project No.:

Project:

Contract

Name:

Effective Date of Work Change

Date Issued:

Directive:

Contractor is directed to proceed promptly with the following change(s):

Description:

Attachments:

Purpose for the Work Change Directive:

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☐ Non-agreement on pricing of proposed change. ☐ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: \$ _____ **[increase] [decrease] [not yet estimated].**

Contract Time: _____ days **[increase] [decrease] [not yet estimated].**

Basis of estimated change in Contract Price:

☐ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

Recommended by Engineer

Authorized by Owner

By:

Title:

Date:

CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner: _____ Owner's Project No.: _____
Engineer: _____ Engineer's Project No.: _____
Contractor: _____ Contractor's Project No.: _____
Project: _____
Contract Name: _____

This ☐ Preliminary ☐ Final Certificate of Substantial Completion applies to:
☐ All Work ☐ The following specified portions of the Work:

Date of Substantial Completion:

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work must be as provided in the Contract, except as amended as follows:

Amendments to Owner's Responsibilities: ☐ None ☐ As follows:

Amendments to Contractor's Responsibilities: ☐ None ☐ As follows:

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

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Engineer

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

Change Order No. _____

Date of Issuance:

Effective Date:

Owner:

Owner's Contract No.:

Contractor:

Contractor's Project No.:

Engineer:

Engineer's Project No.:

Project:

Contract Name:

The Contract is modified as follows upon execution of this Change Order:

Description:

Attachments: *[List documents supporting change]*

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i>
Original Contract Price: \$ _____	Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: \$ _____	[Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: Substantial Completion: _____ Ready for Final Payment: _____ days
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] of this Change Order: \$ _____	[Increase] [Decrease] of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ days or dates

RECOMMENDED:

ACCEPTED:

ACCEPTED:

By: _____
Engineer (if required)

By: _____
Owner (Authorized Signature)

By: _____
Contractor (Authorized Signature)

Title: _____
Date: _____

Title: _____
Date: _____

Title: _____
Date: _____

Approved by Funding Agency (if applicable)

By: _____
Title: _____

Date: _____

FIELD ORDER NO.: [Number of Field Order]

Owner:

Owner's Project No.:

Engineer:

Engineer's Project No.:

Contractor:

Contractor's Project No.:

Project:

Contract Name:

Date Issued:

Effective Date of Field Order:

Contractor is hereby directed to promptly perform the Work described in this Field Order, issued in accordance with Paragraph 11.04 of the General Conditions, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification Section(s):

Drawing(s) / Details (s):

Description:

[Description of the change to the Work]

Attachments:

[List documents supporting change]

Issued by Engineer

By: _____

Title: _____

Date: _____

ATTACHMENT A.3 – SAMPLE LANGUAGE FOR CONTRACTOR’S CERTIFICATION
OF COMPLIANCE

**ATTACHMENT A.3 – SAMPLE LANGUAGE FOR CONTRACTOR’S
CERTIFICATION OF COMPLIANCE**

Notes to User:

1. *This attachment provides sample language that the Contractor can use to certify compliance with the Build America Buy America Act (BABAA) requirements. The language can be modified.*

Modification Example: If the project is subject to AIS, the BABAA reference should be replaced with language such as “American Iron and Steel (AIS) requirements mandated by Section 746 of Title VII of the Consolidated Appropriations Act of 2017 and subsequent annual appropriations for WWD programs.”

2. *The certification should be on letterhead and should be signed and dated by an authorized company representative.*

3. *A certification is to be provided by Contractor to Engineer for delivery to the Owner and Agency prior to final payment.*

Project Name

Owner / Applicant

Contract Number

I hereby certify, that to the best of my knowledge and belief, all Iron and Steel products, Manufactured Products, and Construction Materials installed for this project by my company and by any and all subcontractors and Manufacturers my company has contracted with for this project comply with the Build America, Buy America Act (BABAA) requirements under Title IX of the Infrastructure Investment and Jobs Act (IIJA), Pub. L. 117-58, §§ 70901-70953 or are the subject of a waiver approved by the Secretary of Agriculture or designee.

Name of Contractor Authorized Representative
Contractor Company Name
Contractor Address

Date

RUS Bulletin 1780-26

ATTACHMENT A.4 – SAMPLE LANGUAGE FOR MANUFACTURER’S
CERTIFICATION OF COMPLIANCE

**ATTACHMENT A.4 – SAMPLE LANGUAGE FOR MANUFACTURER’S
CERTIFICATION OF COMPLIANCE**

Notes to User:

1. *This attachment provides sample language for the Manufacturer’s Certification of Compliance with Domestic Preference requirements.*
2. *Contractor should ensure that Engineer has an approved Manufacturers’ Certification prior to any domestic preference item being delivered to the project site.*
3. *The Manufacturer’s Certification must be on letterhead and should indicate the specific item being certified, reference which domestic preference requirement is being certified, and be signed by an authorized company representative.*
4. *The Manufacturer’s Certification may include multiple domestic preference requirements. It is important for the governing domestic preference requirement (whether AIS, BABAA or other) to be clearly included within the certification.*

Date:

Company Name:

Company
Address:

Subject: Domestic Preference Requirement Certification for {Owner’s Name and Project Name (City, State)}, and Contract Number

I hereby certify that the following product(s) and / or material(s) shipped or provided for the subject project are in full compliance with the Build America, Buy America Act (BABAA) requirements under Title IX of the Infrastructure Investment and Jobs Act (IIJA), Pub. L. 117-58, §§ 70901-70953.

[List common name of items, products and/or materials]

These products and/or materials were manufactured in [Provide location(s) of manufacturing]

[Include signature of authorized representative]

NOTICE OF ACCEPTABILITY OF WORK

Owner: _____ Owner's Project No.: _____
Engineer: _____ Engineer's Project No.: _____
Contractor: _____ Contractor's Project No.: _____
Project: _____
Contract Name: _____
Notice Date: _____ Effective Date of the Construction Contract: _____

The Engineer hereby gives notice to the Owner and Contractor that Engineer recommends final payment to Contractor, and that the Work furnished and performed by Contractor under the Construction Contract is acceptable, expressly subject to the provisions of the Construction Contract's Contract Documents ("Contract Documents") and of the Agreement between Owner and Engineer for Professional Services dated **[date of professional services agreement]** ("Owner-Engineer Agreement"). This Notice of Acceptability of Work (Notice) is made expressly subject to the following terms and conditions to which all who receive and rely on said Notice agree:

1. This Notice has been prepared with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the Engineer's professional opinion.
3. This Notice has been prepared to the best of Engineer's knowledge, information, and belief as of the Notice Date.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's Work) under the Owner-Engineer Agreement, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Owner-Engineer Agreement.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract, an acceptance of Work that is not in accordance with the Contract Documents, including but not limited to defective Work discovered after final inspection, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Contract Documents, or to otherwise comply with the Contract Documents or the terms of any special guarantees specified therein.
6. This Notice does not relieve Contractor of any surviving obligations under the Construction Contract, and is subject to Owner's reservations of rights with respect to completion and final payment.

Engineer

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner: _____ Owner's Project No.: _____
Engineer: _____ Engineer's Project No.: _____
Contractor: _____ Contractor's Project No.: _____
Project: _____
Contract Name: _____

This ☐ Preliminary ☐ Final Certificate of Substantial Completion applies to:
☐ All Work ☐ The following specified portions of the Work:

Date of Substantial Completion:

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work must be as provided in the Contract, except as amended as follows:

Amendments to Owner's Responsibilities: ☐ None ☐ As follows:

Amendments to Contractor's Responsibilities: ☐ None ☐ As follows:

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

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Engineer

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

**NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR
CERTIFICATIONS OF NON-SEGREGATED FACILITIES**

A certification of Nonsegregated Facilities, as required by the May 9, 1967, order (32F.R. 7439, may 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted prior to the award of a subcontract exceeding \$ 10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

DATE _____

(Signature of Bidder or Prospective Contractor)

Address (including Zip Code)

INSERT C-700 STANDARD GENERAL CONDITIONS HERE

Insert Supplementary Conditions here

GENERAL CONDITIONS AND PROVISIONS

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

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

requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.

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

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

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

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

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

1.02 Terminology

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

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

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

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

2.02 *Copies of Documents*

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

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

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

2.05 *Acceptance of Schedules*

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

2.06 *Electronic Transmittals*

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

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

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

3.02 *Reference Standards*

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

inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

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

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

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

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

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

4.02 *Starting the Work*

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

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

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

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. Abnormal weather conditions;
 - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 - 4. Acts of war or terrorism.

- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

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

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

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

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
 - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

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

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

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

5.04 *Differing Subsurface or Physical Conditions*

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

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

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

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

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

- of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 - 1. include at least the specific coverages required;
 - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 - 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
 - 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
 - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
 - 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

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

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

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

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

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

7.04 *Services, Materials, and Equipment*

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

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 Substitutes

- A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

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

7.09 *Permits*

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

7.10 *Taxes*

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

7.11 *Laws and Regulations*

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

7.12 *Record Documents*

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

7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

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

7.15 *Emergencies*

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

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

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

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
 2. *Samples*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

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

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
- 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
 - 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
 - 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
 - 1. Observations by Engineer;
 - 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 - 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 - 4. Use or occupancy of the Work or any part thereof by Owner;
 - 5. Any review and approval of a Shop Drawing or Sample submittal;
 - 6. The issuance of a notice of acceptability by Engineer;
 - 7. The end of the correction period established in Paragraph 15.08;
 - 8. Any inspection, test, or approval by others; or

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

7.18 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 Delegation of Professional Design Services

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

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

8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
 - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

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

9.02 *Replacement of Engineer*

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

9.03 *Furnish Data*

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

9.04 *Pay When Due*

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

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

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

9.06 *Insurance*

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

9.07 *Change Orders*

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

9.08 *Inspections, Tests, and Approvals*

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

9.09 *Limitations on Owner's Responsibilities*

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

9.10 *Undisclosed Hazardous Environmental Condition*

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

9.11 *Evidence of Financial Arrangements*

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

9.12 *Safety Programs*

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

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

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

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

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

10.04 *Engineer's Authority*

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

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

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

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

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

10.07 *Limitations on Engineer's Authority and Responsibilities*

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

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

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

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

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

11.02 *Change Orders*

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

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
 - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

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

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

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

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:

1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

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

11.09 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.
- B. *Change Proposal Procedures*
 - 1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
 - 2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

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

- 3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
- 4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

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

ARTICLE 12—CLAIMS

12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
 - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

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

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
 5. Other costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
 - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
 - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:
- 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
 - 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
 - 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 - 6. Expenses incurred in preparing and advancing Claims.
 - 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.
- D. *Contractor's Fee*
- 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
 - 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

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

13.02 Allowances

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

13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

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

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

14.01 *Access to Work*

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

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;
 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

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

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

14.03 *Defective Work*

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

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

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

14.05 *Uncovering Work*

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

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 Owner May Correct Defective Work

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

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

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
 - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

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

C. Review of Applications

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*

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

E. *Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

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

15.02 *Contractor's Warranty of Title*

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

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

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

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

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

15.05 *Final Inspection*

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

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

- d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

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

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

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

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

16.02 *Owner May Terminate for Cause*

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

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

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

16.03 *Owner May Terminate for Convenience*

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

16.04 *Contractor May Stop Work or Terminate*

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

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

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

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

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

18.02 *Computation of Times*

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

18.03 *Cumulative Remedies*

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

18.04 *Limitation of Damages*

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

18.05 *No Waiver*

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

18.06 *Survival of Obligations*

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

18.07 *Controlling Law*

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

18.08 *Assignment of Contract*

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

18.09 *Successors and Assigns*

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

18.10 *Headings*

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

SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

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SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

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

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

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

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

~~No suggested Supplementary Conditions in this Article.~~

SC-1.01.A.8 – Add the following at the end of the Paragraph:

The Change Order form to be used on this Project is EJCDC C-941 (2018). Agency approval is required before Change Orders are effective.

SC-1.01.A.30 – Add the following at the end of the Paragraph:

For the purposes of Rural Development, this term is synonymous with the term "applicant" as defined in 7 CFR 1780.7 (a) (1), (2) and (3) and is an entity receiving financial assistance from the federal programs.

SC-1.01.A.50 – Add the following at the end of the Paragraph:

The Work Change Directive form to be used on this Project is EJCDC C-940 (2018). Agency approval is required before a Work Change Directive is issued.

SC-1.01.A.51 – Add the following new paragraph immediately after Paragraph 1.01.A.50:

51. Agency - The Project is financed in whole or in part by USDA Rural Utilities Service pursuant to the Consolidated Farm and Rural Development Act (7 USC Section 1921 et seq.). The Rural Utilities Service programs are administered through the USDA Rural Development offices; therefore, the Agency for these documents is USDA Rural Development.

SC-1.01.A.52 – Add the following new paragraph with the title “Domestic Preference Definitions” immediately after Paragraph 1.01.A.51:

52.a *Build America, Buy America Act (BABAA)* – Requirements mandated by Title IX of the Infrastructure Investment and Jobs Act (IIJA), Pub. L. 117-58, §§ 70901-70953-58 mandating domestic preference that all iron and steel, manufactured products, and construction materials are produced in the United States, in accordance with 2 CFR part 184.

52.b *Construction Materials* – Those articles, materials, or supplies — other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives— that are or consist primarily of: non-ferrous metals, plastic and polymerbased products, glass, lumber or drywall.

52.c *Contractor’s Certification* – A certification submitted by Contractor that, to the best of the Contractor’s knowledge and belief, all Work complies with Domestic Preference requirements.

52.d *De Minimis* – Materials and products that represent a small portion of an infrastructure project, specifically no more than 5% of the project costs up to a maximum of \$1,000,000,

52.e *Domestic Preference* – The Build America, Buy America Act (BABAA) requirements under Title IX of the Infrastructure Investment and Jobs Act (IIJA), Pub. L. 117-58, §§ 70901-70953.

52.f *Engineer’s Certification* – Documentation submitted by the Engineer that Drawings, Specifications, and Bidding Documents comply with Domestic Preference requirements.

52.g *Manufactured Product* – Items assembled out of components, or otherwise made or processed from raw materials into finished products. Manufactured products must be manufactured (assembled) in the United States, and the cost of components that were mined, produced, or manufactured in the United States must be greater than 55 percent of the total cost of all components of the product.

52.h *Manufacturer’s Certification* – Documentation provided by the Manufacturer stating that Domestic Preference requirements have been satisfied for all provided items. Manufacturers’ Certifications must include (at a minimum): specific list of products (using common names) associated with the certificate, location of the final manufacturing, signature of the manufacturer’s representative, and a reference to the Domestic Preference statute. If items are purchased via a Supplier, distributor, vendor, etc. from the Manufacturer directly, then the Supplier, distributor, vendor, etc. will be responsible for obtaining and providing these certifications to the parties purchasing the products.

52.i *Minor Components* - Components within an iron and/or steel product otherwise compliant with the Domestic Preference requirements. This waiver, typically used by Manufacturers, allows use of non-domestically produced miscellaneous Minor Components comprising up to five percent of the total material cost of an otherwise domestically produced iron and steel product. However, unless a separate waiver for a product has been approved, all other iron and steel components in said product must still meet the Domestic Preference requirements. This waiver does not exempt the whole product from the Domestic Preference requirements only Minor Components within said product and the iron or steel components of the product must be produced domestically.

52.j *Primarily Iron or Steel* - A product is made of greater than 50 percent iron or Steel on a materials cost basis.

52.k *Manufacturing Processes* - Processes such as melting, refining, pouring, forming, rolling, drawing, finishing, and fabricating. Further, if a domestic Iron and Steel product is taken out of the United States for any part of the manufacturing process, it becomes foreign source material. However, raw materials such as iron ore, limestone and iron and steel scrap are not covered by the AIS requirement, and the material(s), if any, being applied as a Coating are similarly not covered. Non-iron or Steel components of an Iron and Steel product may come from non-US sources. For example, for products such as valves and hydrants, the individual non-Iron and Steel components do not have to be of domestic origin. Raw materials, such as iron ore, limestone, scrap iron, and scrap steel, can come from non-U.S. sources.

52.l *Mechanical Equipment* - Typically equipment which has motorized parts and/or is powered by a motor. AIS does not apply to Mechanical Equipment.

52.m *Minor Components* - Components *within* an iron and/or Steel product otherwise compliant with the American Iron and Steel requirements; this waiver is typically used by Manufacturers. It differs from the *De Minimis* definition in that *De Minimis* pertains to the entire project and the minor component definition pertains to a single product. This waiver allows use of non-domestically produced miscellaneous Minor Components comprising up to five percent of the total material cost of an otherwise domestically produced Iron and Steel product. However, unless a separate waiver for a product has been approved, all other Iron and Steel components in said product must still meet the AIS requirements. This waiver does not exempt the whole product from the AIS requirements only Minor Components within said product and the iron or Steel components of the product must be produced domestically. Valves and hydrants are also subject to the cost ceiling requirements described here. Examples of Minor Components could include items such as pins and springs in valves/hydrants, bands/straps in couplings, and other low-cost items such as small fasteners etc.

52.n *Municipal Castings* - Cast iron or Steel infrastructure products that are melted and cast. They typically provide access, protection, or housing for components incorporated into utility owned drinking water, storm water, wastewater, and solid waste infrastructure.

52.o *Primarily Iron or Steel* - A product is made of greater than 50 percent iron or Steel on a materials cost basis. An exception to this definition is reinforced precast concrete (see Definitions). All technical specifications and applicable industry standards (e.g. NIST, NSF, AWWA) must be met. If a product is determined to be less than 50 percent iron and/or steel, the AIS requirements do not apply. For example, the cost of a fire hydrant includes:

- ☐ The cost of materials used for the iron portion of a fire hydrant (e.g. bonnet, body and shoe); and
- ☐ The cost to pour and cast to create those components (e.g. labor and energy).

Not included in the cost are:

- ☐ The additional material costs for the non-iron or Steel internal workings of the hydrant (e.g. stem, coupling, valve, seals, etc.); and
- ☐ The cost to assemble the internal workings into the hydrant body.

52.p *Produced in the United States* - The production in the United States of the iron or Steel products used in the project requires that all Manufacturing Processes must take place in the United States, with the exception of metallurgical processes involving refinement of steel additives.

52.q *Reinforced Precast Concrete* – Reinforced Precast Concrete structures must comply with AIS, regardless of whether or not it consists of at least 50 percent iron or steel. The reinforcing bar and wire must be Produced in the United States and meet the same standards as for any other iron or Steel product. Additionally, the casting of the concrete product must take place in the United States. The cement and other raw materials used in concrete production are not required to be of domestic origin. If the reinforced concrete is cast at the construction site, the reinforcing bar and wire are considered Construction Materials and must be Produced in the United States.

52.r *Steel* - An alloy that includes at least 50 percent iron, between 0.02 and 2 percent carbon, and may include other elements. Metallic elements such as chromium, nickel, molybdenum, manganese, and silicon may be added during the melting of Steel for the purpose of enhancing properties such as corrosion resistance, hardness, or strength. The definition of Steel covers carbon steel, alloy steel, stainless steel, tool steel, and other specialty steels.

52.s *Structural Steel* - Rolled flanged shapes, having at least one dimension of their cross-section three inches or greater, which are used in the construction of bridges, buildings, ships, railroad rolling stock, and for numerous other constructional purposes. Such shapes are designated as wide-flange shapes, standard I-beams, channels, angles, tees, and zees. Other shapes include but are not limited to, H-piles, sheet piling, tie plates, cross ties, and those for other special purposes.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

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

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

2.02 *Copies of Documents*

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

Owner shall furnish to Contractor **five** printed copies of the Contract Documents (including one fully signed counterpart of the Agreement), and **one copy** in electronic portable document format (PDF).

SC-2.02 Delete Paragraph 2.02.A in its entirety and insert the following new paragraph in its place:

- A. Owner shall furnish to Contractor **5** printed copies of conformed Contract Documents incorporating and integrating all Addenda and any amendments negotiated prior to the Effective Date of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies of the conformed Contract Documents will be furnished upon request at the cost of reproduction.

2.06 *Electronic Transmittals*

SC-2.06 Delete Paragraphs 2.06.B and 2.06.C in their entirety and insert the following in their place:

- B. *Electronic Documents Protocol:* The parties shall conform to the following provisions in Paragraphs 2.06.B and 2.06.C, together referred to as the Electronic Documents Protocol ("EDP" or "Protocol") for exchange of electronic transmittals.

1. *Basic Requirements*

- a. To the fullest extent practical, the parties agree to and will transmit and accept Electronic Documents in an electronic or digital format using the procedures described in this Protocol. Use of the Electronic Documents and any information contained therein is subject to the requirements of this Protocol and other provisions of the Contract.
- b. The contents of the information in any Electronic Document will be the responsibility of the transmitting party.
- c. Electronic Documents as exchanged by this Protocol may be used in the same manner as the printed versions of the same documents that are exchanged using non-electronic format and methods, subject to the same governing requirements, limitations, and restrictions, set forth in the Contract Documents.

- d. Except as otherwise explicitly stated herein, the terms of this Protocol will be incorporated into any other agreement or subcontract between a party and any third party for any portion of the Work on the Project, or any Project-related services, where that third party is, either directly or indirectly, required to exchange Electronic Documents with a party or with Engineer. Nothing herein will modify the requirements of the Contract regarding communications between and among the parties and their subcontractors and consultants.
- e. When transmitting Electronic Documents, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the receiving party's use of software application packages, operating systems, or computer hardware differing from those established in this Protocol.
- f. Nothing herein negates any obligation 1) in the Contract to create, provide, or maintain an original printed record version of Drawings and Specifications, signed and sealed according to applicable Laws and Regulations; 2) to comply with any applicable Law or Regulation governing the signing and sealing of design documents or the signing and electronic transmission of any other documents; or 3) to comply with the notice requirements of Paragraph 18.01 of the General Conditions.

2. *System Infrastructure for Electronic Document Exchange*

- a. Each party will provide hardware, operating system(s) software, internet, e-mail, and large file transfer functions ("System Infrastructure") at its own cost and sufficient for complying with the EDP requirements. With the exception of minimum standards set forth in this EDP, and any explicit system requirements specified by attachment to this EDP, it is the obligation of each party to determine, for itself, its own System Infrastructure.
 - 1) The maximum size of an email attachment for exchange of Electronic Documents under this EDP is **20 MB**. Attachments larger than that may be exchanged using large file transfer functions or physical media.
 - 2) Each Party assumes full and complete responsibility for any and all of its own costs, delays, deficiencies, and errors associated with converting, translating, updating, verifying, licensing, or otherwise enabling its System Infrastructure, including operating systems and software, for use with respect to this EDP.
- b. Each party is responsible for its own system operations, security, back-up, archiving, audits, printing resources, and other Information Technology ("IT") for maintaining operations of its System Infrastructure during the Project, including coordination with the party's individual(s) or entity responsible for managing its System Infrastructure and capable of addressing routine communications and other IT issues affecting the exchange of Electronic Documents.
- c. Each party will operate and maintain industry-standard, industry-accepted, ISO-standard, commercial-grade security software and systems that are intended to protect the other party from: software viruses and other malicious software like worms, trojans, adware; data breaches; loss of confidentiality; and other threats in the transmission to or storage of information from the other parties, including

transmission of Electronic Documents by physical media such as CD/DVD/flash drive/hard drive. To the extent that a party maintains and operates such security software and systems, it shall not be liable to the other party for any breach of system security.

- d. In the case of disputes, conflicts, or modifications to the EDP required to address issues affecting System Infrastructure, the parties shall cooperatively resolve the issues; but, failing resolution, the Owner is authorized to make and require reasonable and necessary changes to the EDP to effectuate its original intent. If the changes cause additional cost or time to Contractor, not reasonably anticipated under the original EDP, Contractor may seek an adjustment in price or time under the appropriate process in the Contract.
- e. Each party is responsible for its own back-up and archive of documents sent and received during the term of the contract under this EDP, unless this EDP establishes a Project document archive, either as part of a mandatory Project website or other communications protocol, upon which the parties may rely for document archiving during the specified term of operation of such Project document archive. Further, each party remains solely responsible for its own post-Project back-up and archive of Project documents after the term of the Contract, or after termination of the Project document archive, if one is established, for as long as required by the Contract and as each party deems necessary for its own purposes.
- f. If a receiving party receives an obviously corrupted, damaged, or unreadable Electronic Document, the receiving party will advise the sending party of the incomplete transmission.
- g. The parties will bring any non-conforming Electronic Documents into compliance with the EDP. The parties will attempt to complete a successful transmission of the Electronic Document or use an alternative delivery method to complete the communication.
- h. The Owner will operate a Project information management system (also referred to in this EDP as "Project Website") for use of Owner, Engineer and Contractor during the Project for exchange and storage of Project-related communications and information. Except as otherwise provided in this EDP or the General Conditions, use of the Project Website by the parties as described in this Paragraph will be mandatory for exchange of Project documents, communications, submittals, and other Project-related information. The following conditions and standards will govern use of the Project Website:
 - 1) Describe the period of time during which the Project Website will be operated and be available for reliance by the parties;
 - 2) Provide any minimum system infrastructure, software licensing and security standards for access to and use of the Project Website;
 - 3) Describe the types and extent of services to be provided at the Project Website (such as large file transfer, email, communication and document archives, etc.); and

- 4) Include any other Project Website attributes that may be pertinent to Contractor's use of the facility and pricing of such use.

C. *Software Requirements for Electronic Document Exchange; Limitations*

1. Each party will acquire the software and software licenses necessary to create and transmit Electronic Documents and to read and to use any Electronic Documents received from the other party (and if relevant from third parties), using the software formats required in this section of the EDP.
 - a. Prior to using any updated version of the software required in this section for sending Electronic Documents to the other party, the originating party will first notify and receive concurrence from the other party for use of the updated version or adjust its transmission to comply with this EDP.
2. The parties agree not to intentionally edit, reverse engineer, decrypt, remove security or encryption features, or convert to another format for modification purposes any Electronic Document or information contained therein that was transmitted in a software data format, including Portable Document Format (PDF), intended by sender not to be modified, unless the receiving party obtains the permission of the sending party or is citing or quoting excerpts of the Electronic Document for Project purposes.
3. Software and data formats for exchange of Electronic Documents will conform to the requirements set forth in Exhibit A to this EDP, including software versions, if listed.

SC-2.06 Supplement Paragraph 2.06 of the General Conditions by adding the following paragraph:

D. *Requests by Contractor for Electronic Documents in Other Formats*

1. Release of any Electronic Document versions of the Project documents in formats other than those identified in the Electronic Documents Protocol (if any) or elsewhere in the Contract will be at the sole discretion of the Owner.
2. To extent determined by Owner, in its sole discretion, to be prudent and necessary, release of Electronic Documents versions of Project documents and other Project information requested by Contractor ("Request") in formats other than those identified in the Electronic Documents Protocol (if any) or elsewhere in the Contract will be subject to the provisions of the Owner's response to the Request, and to the following conditions to which Contractor agrees:
 - a. The content included in the Electronic Documents created by Engineer and covered by the Request was prepared by Engineer as an internal working document for Engineer's purposes solely, and is being provided to Contractor on an "AS IS" basis without any warranties of any kind, including, but not limited to any implied warranties of fitness for any purpose. As such, Contractor is advised and acknowledges that the content may not be suitable for Contractor's application, or may require substantial modification and independent verification by Contractor. The content may include limited resolution of models, not-to-scale schematic representations and symbols, use of notes to convey design concepts in lieu of accurate graphics, approximations, graphical simplifications, undocumented intermediate revisions, and other devices that may affect subsequent reuse.

- b. Electronic Documents containing text, graphics, metadata, or other types of data that are provided by Engineer to Contractor under the request are only for convenience of Contractor. Any conclusion or information obtained or derived from such data will be at the Contractor's sole risk and the Contractor waives any claims against Engineer or Owner arising from use of data in Electronic Documents covered by the Request.
 - c. Contractor shall indemnify and hold harmless Owner and Engineer and their subconsultants from all claims, damages, losses, and expenses, including attorneys' fees and defense costs arising out of or resulting from Contractor's use, adaptation, or distribution of any Electronic Documents provided under the Request.
 - d. Contractor agrees not to sell, copy, transfer, forward, give away or otherwise distribute this information (in source or modified file format) to any third party without the direct written authorization of Engineer, unless such distribution is specifically identified in the Request and is limited to Contractor's subcontractors. Contractor warrants that subsequent use by Contractor's subcontractors complies with all terms of the Contract Documents and Owner's response to Request.
3. In the event that Owner elects to provide or directs the Engineer to provide to Contractor any Contractor-requested Electronic Document versions of Project information that is not explicitly identified in the Contract Documents as being available to Contractor, the Owner shall be reimbursed by Contractor on an hourly basis (at \$[number] per hour) for any engineering costs necessary to create or otherwise prepare the data in a manner deemed appropriate by Engineer.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 Intent

SC-3.01 Delete Paragraph 3.01.C in its entirety.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

SC-4.01.A The Contract Times will commence on the day indicated in the Notice to Proceed.

The Notice to Proceed date must be no later than 30 days after the Effective Date of the Contract. The Owner must issue a Notice to Proceed".

4.05 Delays in Contractor's Progress

SC-4.05 Paragraph is mandatory for WWD projects.

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

- 5. *Weather-Related Delays*
 - a. If "abnormal weather conditions" as set forth in Paragraph 4.05.C.2 of the General Conditions are the basis for a request for an equitable adjustment in the Contract Times, such request must be documented by data substantiating each of the following: 1) that weather conditions were abnormal for the period of time in

which the delay occurred, 2) that such weather conditions could not have been reasonably anticipated, and 3) that such weather conditions had an adverse effect on the Work as scheduled. **Extreme or unusual weather that is typical for a given region, elevation, or season should not be considered abnormal weather conditions. Requests for time extensions due to abnormal weather conditions will be submitted to the Engineer within five days of the end of the abnormal weather condition event. It is the responsibility of the Contractor to provide the information listed in SC 4.05.C.5.b.**

- b. The existence of abnormal weather conditions will be determined on a month-by-month basis in accordance with the following:
 - 1) Every workday on which one or more of the following conditions exist will be considered a “bad weather day”:
 - i) Total precipitation (as rain equivalent) occurring between 7:00 p.m. on the preceding day (regardless of whether such preceding day is a workday) through 7:00 p.m. on the workday in question equals or exceeds **0.25”** of precipitation (as rain equivalent, based on the snow/rain conversion indicated in the table entitled Foreseeable Bad Weather Days; such table is hereby incorporated in this SC-4.05.C by reference.
 - ii) Ambient outdoor air temperature at 11:00 a.m. is equal to or less than the following low temperature threshold: **32** degrees Fahrenheit; or, at 3:00 p.m. the ambient outdoor temperature is equal to or greater than the following high temperature threshold: **95** degrees Fahrenheit.
 - 2) Determination of actual bad weather days during performance of the Work will be based on the weather records measured and recorded by **Doggett Water Plant** weather monitoring station at **Doggett Water Plant Road**
 - 3) Contractor shall anticipate the number of foreseeable bad weather days per month indicated in the table in Exhibit **B**—Foreseeable Bad Weather Days.
 - 4) In each month, every bad weather day exceeding the number of foreseeable bad weather days established in the table in Exhibit B —Foreseeable Bad Weather Days will be considered as “abnormal weather conditions.” The existence of abnormal weather conditions will not relieve Contractor of the obligation to demonstrate and document that delays caused by abnormal weather are specific to the planned work activities or that such activities thus delayed were on Contractor’s then-current Progress Schedule’s critical path for the Project.

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

5.03 *Subsurface and Physical Conditions*

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.D:

- E. The following table lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which Contractor may rely: **[If there are no such reports, so indicate in the table.]**

Report Title	Date of Report	Technical Data
N/A	N/A	[Identify Technical Data]

- F. The following table lists the drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data, and specifically identifies the Technical Data upon which Contractor may rely: **[If there are no such drawings, so indicate in the table.]**

Drawings Title	Date of Drawings	Technical Data
Franklin Street Streetscape Plans	May, 2025	Plans and Project Manual

- G. Contractor may examine copies of reports and drawings identified in SC-5.03.E and SC-5.03.F that were not included with the Bidding Documents at **[location]** during regular business hours, or may request copies from Engineer.

5.06 Hazardous Environmental Conditions

SC-5.06 Add the following new paragraphs immediately after Paragraph 5.06.A.3:

4. The following table lists the reports known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and the Technical Data (if any) upon which Contractor may rely: **[If there are no such reports, so indicate in the table]**

Report Title	Date of Report	Technical Data
N/A		[Identify Technical Data]

5. The following table lists the drawings known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and Technical Data (if any) contained in such Drawings upon which Contractor may rely: **[If there are no such drawings, so indicate in the table]**

Drawings Title	Date of Drawings	Technical Data
N/A		[Identify Technical Data]

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

SC-6.01 – Disregard EJCDC Guidance Notes – Performance and Payment Bonds, Note 1. Performance and Payment Bonds are required for WEP projects.

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

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

~~SC-6.01 – EJCDC Guidance Notes – “Other Bonds,” Warranty Bond, Note 1. RD does not require a Warranty Bond, and RD will not accept a Warranty Bond in place of a Performance and Payment Bond. The decision to include a Warranty Bond is made by the Owner and their counsel. Please refer to EJCDC.~~

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

- ~~1. The correction period specified as one year after the date of Substantial Completion in Paragraph 15.08.A of the General Conditions is hereby revised to be [number—either 2, 3, or other] years after Substantial Completion.~~
- ~~2. After Substantial Completion, Contractor shall furnish a warranty bond issued in the form of EJCDC® C-612, Warranty Bond (2018). The warranty bond must be in a bond amount of [number—either 10, 15, or other] percent of the final Contract Price. The warranty bond period will extend to a date [number—either 2, 3, or other] years after Substantial Completion of the Work. Contractor shall deliver the fully executed warranty bond to Owner prior to or with the final application for payment, and in any event no later than 11 months after Substantial Completion.~~
- ~~3. The warranty bond must be issued by the same surety that issues the performance bond required under Paragraph 6.01.A of the General Conditions.~~

6.02 *Insurance—General Provisions*

SC-6.02 Add the following paragraph immediately after Paragraph 6.02.B:

1. Contractor may obtain worker’s compensation insurance from an insurance company that has not been rated by A.M. Best, provided that such company (a) is domiciled in the state in which the Project is located, (b) is certified or authorized as a worker’s compensation insurance provider by the appropriate state agency, and (c) has been accepted to provide worker’s compensation insurance for similar projects by the state within the last 12 months.

SC-6.02 Add the following paragraph immediately after Paragraph 6.02.H.2 of the General Conditions:

3. For the following Subcontractors, Suppliers, or categories of Subcontractor or Supplier, Contractor shall require the following specified insurance, with policy limits as stated:
None

6.03 *Contractor’s Insurance*

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

- D. *Other Additional Insureds:* As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional insureds (in addition to Owner and Engineer) the following: **None**
- E. *Workers' Compensation and Employer's Liability:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

Workers' Compensation and Related Policies	Policy limits of not less than:
Workers' Compensation	
State	Statutory
Applicable Federal (e.g., Longshoreman's)	Statutory
Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable	Statutory
Jones Act (if applicable)	
Bodily injury by accident—each accident	\$
Bodily injury by disease—aggregate	\$
Employer's Liability	
Each accident	\$1,000,000
Each employee	\$1,000,000
Policy limit	\$1,000,000
Stop-gap Liability Coverage	
For work performed in monopolistic states, stop-gap liability coverage must be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of:	\$

- F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:
1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
 2. damages insured by reasonably available personal injury liability coverage, and
 3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- G. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:

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

Commercial General Liability	Policy limits of not less than:
General Aggregate	No limits
Products—Completed Operations Aggregate	\$5,000,000

Commercial General Liability	Policy limits of not less than:
Personal and Advertising Injury	\$5,000,000
Bodily Injury and Property Damage—Each Occurrence	\$5,000,000

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

Automobile Liability	Policy limits of not less than:
Bodily Injury	
Each Person	\$
Each Accident	\$
Property Damage	
Each Accident	\$
[or]	
Combined Single Limit	
Combined Single Limit (Bodily Injury and Property Damage)	\$5,000,000

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

Excess or Umbrella Liability	Policy limits of not less than:
Each Occurrence	\$N/A
General Aggregate	\$ N/A

- L. *Using Umbrella or Excess Liability Insurance to Meet CGL and Other Policy Limit Requirements:* Contractor may meet the policy limits specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy's policy limits and partial attribution of the policy limits of an umbrella or excess liability policy that is at least as broad in coverage as that of the underlying policy, as specified herein. If such umbrella or excess liability policy was required under this Contract, at a specified minimum policy limit, such umbrella or excess policy must retain a minimum limit of \$[specify amount] after accounting for partial attribution of its limits to underlying policies, as allowed above.
- M. *Contractor's Pollution Liability Insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage, including cleanup costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance must be maintained for no less than three years after final completion.

Contractor's Pollution Liability	Policy limits of not less than:
Each Occurrence/Claim	\$ N/A
General Aggregate	\$ N/A

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

Contractor's Professional Liability	Policy limits of not less than:
Each Claim	\$ N/A
Annual Aggregate	\$ N/A

- O. *Railroad Protective Liability Insurance:* Prior to commencing any Work within 50 feet of railroad-owned and controlled property, Contractor shall (1) endorse its commercial general liability policy with ISO CG 24 17, removing the contractual liability exclusion for work within 50 feet of a railroad, (2) purchase and maintain railroad protective liability insurance meeting the following requirements, (3) furnish a copy of the endorsement to Owner, and (4) submit a copy of the railroad protective policy and other railroad-required documentation to the railroad, and notify Owner of such submittal.

[Insert additional specific requirements, commonly set by the railroad, here.]

Railroad Protective Liability Insurance	Policy limits of not less than:
Each Claim	\$ N/A
Aggregate	\$ N/A

- P. *Unmanned Aerial Vehicle Liability Insurance:* If Contractor uses unmanned aerial vehicles (UAV—commonly referred to as drones) at the Site or in support of any aspect of the Work, Contractor shall obtain UAV liability insurance in the amounts stated; name Owner, Engineer, and all individuals and entities identified in the Supplementary Conditions as additional insureds; and provide a certificate to Owner confirming Contractor's compliance with this requirement. Such insurance will provide coverage for property damage, bodily injury or death, and invasion of privacy.

Unmanned Aerial Vehicle Liability Insurance	Policy limits of not less than:
Each Claim	\$ N/A
General Aggregate	\$ N/A

- Q. *Other Required Insurance:* [Here list additional types and amounts of insurance that Contractor is required to carry.]

~~6.04 — *Builder's Risk and Other Property Insurance*~~

SC-6.04 — Delete Paragraph 6.04.A and insert the following in its place:

- A. ~~Owner shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.~~

SC-6.04 — Supplement Paragraph 6.04 of the General Conditions with the following provisions:

- F. ~~*Builder's Risk Requirements:*~~ The builder's risk insurance must:

- ~~1. be written on a builder's risk "all risk" policy form that at a minimum includes insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment stored and in transit, and must not exclude the coverage of the following risks: fire; windstorm; hail; flood; earthquake, volcanic activity, and other earth movement; lightning; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; and water damage (other than that caused by flood).~~
 - ~~a. Such policy will include an exception that results in coverage for ensuing losses from physical damage or loss with respect to any defective workmanship, methods, design, or materials exclusions.~~
 - ~~b. 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 will be provided through other insurance policies acceptable to Owner and Contractor.~~
- ~~2. 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.~~
- ~~3. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of contractors, engineers, and architects).~~
- ~~4. 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). If this coverage is subject to a sublimit, such sublimit will be a minimum of **\$[amount]**.

- ~~5. extend to cover damage or loss to insured property while in transit. If this coverage is subject to a sublimit, such sublimit will be a minimum of **\$[amount]**.~~
- ~~6. allow for the waiver of the insurer's subrogation rights, as set forth in this Contract.~~
- ~~7. allow for partial occupancy or use by Owner by endorsement, and without cancellation or lapse of coverage.~~
- ~~8. include performance/hot testing and start up, if applicable.~~
- ~~9. be maintained in effect until the Work is complete, as set forth in Paragraph 15.06.D of the General Conditions, or until written confirmation of Owner's procurement of property insurance following Substantial Completion, whichever occurs first.~~
- ~~10. include as named insureds the Owner, Contractor, Subcontractors (of every tier), and any other individuals or entities required by this Contract to be insured under such builder's risk policy. For purposes of Paragraphs 6.04, 6.05, and 6.06 of the General Conditions, and this and all other corresponding Supplementary Conditions, the parties required to be insured will be referred to collectively as "insureds." In addition to Owner, Contractor, and Subcontractors of every tier, include as insureds the following:~~
 - ~~a. **[Here list by legal name (not category, role, or classification) other persons or entities to be included on the builder's risk policy as named insureds. It is generally recommended to list the insured's full legal/contractual name, address, contact person, telephone, and e-mail address. Include only persons or entities that have property at the Site that is to be insured by the builder's risk insurance. If applicable, separately identify any mortgagee or lender required to be named as a loss payee.]**~~
- ~~11. include, in addition to the Contract Price amount, the value of the following equipment and materials to be installed by the Contractor but furnished by the Owner or third parties:~~
 - ~~a. **[Here list or provide cross reference to specific items of Owner furnished (or third party furnished) equipment, and purchase value; do not list items whose value is already included in the Contract Price.]**~~
- ~~12. If debris removal in connection with repair or replacement of insured property is subject to a coverage sublimit, such sublimit will be a minimum of **\$[amount]**.~~
- ~~13. In addition to the coverage sublimits stated above, the following coverages are also subject to sublimits, as follows:~~
 - ~~a. **[Here list a specific coverage, or cause of loss, that has been determined to be likely to be subject to a sublimit. If not applicable, then delete Paragraph SC 6.04.F.13 in its entirety.]**~~ If this coverage is subject to a sublimit, such sublimit will be a minimum of **\$[amount]**.

SC 6.04 — Supplement Paragraph 6.04 of the General Conditions with the following provision:

- ~~G. *Coverage for Completion Delays:* The builder's risk policy will include, for the benefit of Owner, loss of revenue and soft cost coverage for losses arising from delays in completion~~

EJCDC® C-800, Supplementary Conditions of the Construction Contract.

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~~that result from covered physical losses or damage. Such coverage will include, without limitation, fixed expenses and debt service for a minimum of 12 months with a maximum deductible of 30 days, compensation for loss of net revenues, rental costs, and attorneys' fees and engineering or other consultants' fees, if not otherwise covered.~~

SC-6.04 — ~~Supplement Paragraph 6.04 of the General Conditions with the following provisions:~~

~~H. *Builder's Risk and Other Property Insurance Deductibles:* The purchaser of any required builder's risk, installation floater, or other property insurance will be responsible for costs not covered because of the application of a policy deductible.~~

- ~~1. The builder's risk policy (or if applicable the installation floater) will be subject to a deductible amount of no more than \$[number] for direct physical loss in any one occurrence.~~

SC-6.04 — ~~Delete Paragraph 6.04.A of the General Conditions and substitute the following in its place:~~

~~A. *Installation Floater*~~

- ~~1. Contractor shall provide and maintain installation floater insurance on a broad form or "all risk" policy providing coverage for materials, supplies, machinery, fixtures, and equipment that will be incorporated into the Work ("Covered Property"). Coverage under the Contractor's installation floater will include loss from covered "all risk" causes (perils) to Covered Property:
 - ~~a. of the Contractor, and Covered Property of others that is in Contractor's care, custody, and control;~~
 - ~~b. while in transit to the Site, including while at temporary storage sites;~~
 - ~~c. while at the Site awaiting and during installation, erection, and testing;~~
 - ~~d. continuing at least until the installation or erection of the Covered Property is completed, and the Work into which it is incorporated is accepted by Owner.~~~~
- ~~2. The installation floater coverage cannot be contingent on an external cause or risk, or limited to property for which the Contractor is legally liable.~~
- ~~3. The installation floater coverage will be in an amount sufficient to protect Contractor's interest in the Covered Property. The Contractor will be solely responsible for any deductible carried under this coverage.~~
- ~~4. This policy will include a waiver of subrogation applicable to Owner, Contractor, Engineer, all Subcontractors, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them.~~

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.03 *Labor; Working Hours*

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

1. Regular working hours will be **7am-5pm**.

2. Owner's legal holidays are **New Year's Day, Martin Luther King Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day (2), Christmas Eve, Christmas Day.**

SC-7.03 Amend the first and second sentences of Paragraph 7.03.C to state "...all Work at the Site must be performed during regular working hours, **Monday** through **Friday** Contractor will not perform Work on a **Saturday or Sunday** or any legal holiday."

SC-7.03 Delete Paragraph 7.03.C in its entirety, and insert the following:

- C. In the absence of any Laws or Regulations to the contrary, Contractor may perform the Work on holidays, during any or all hours of the day, and on any or all days of the week, at Contractor's sole discretion.

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

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

SC-7.03 Add the following new subparagraph immediately after Paragraph SC-7.03.D:

1. For purposes of administering the foregoing requirement, additional overtime costs are defined as **40+ hours weekly.**

SC-7.04.D – Add the following new paragraph immediately after Paragraph 7.04.C:

D. All products must meet Domestic Preference requirements.

SC-7.04.E – Add the following new paragraph immediately after Paragraph 7.04.D:

- E. **For projects utilizing a De Minimis waiver, Contractor shall maintain an itemized list of non-domestically produced components and ensure that the cost is less than 5% of total project cost for project up to a maximum of \$1,000,000.**

SC-7.05.A – Amend the third sentence of paragraph by striking out the following words:

Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item is permitted,

SC-7.05.A.1.a.3 – Amend the last sentence of Paragraph a.3 by striking out "and;" and adding a period at the end of Paragraph a.3.

SC-7.05.A.1.a.4 – Delete paragraph in its entirety and insert "Deleted."

SC-7.05.B – Add the following at the end of paragraph:

Contractor shall include a Manufacturer’s Certification or waiver for compliance with Domestic Preference requirements and supporting data, as applicable. Refer to Sample Language for Manufacturer’s Certification provided in these Contract Documents.

SC-7.06.A.3.a.2 – Remove “and” from the end of paragraph.

SC-7.06.A.3.a.3 – Add “; and” to the end of paragraph.

SC-7.06.A.3.a.4 – Add the following new paragraph immediately after Paragraph 7.06.A.3.a.3:

4. Comply with Domestic Preference requirements by providing Manufacturer’s Certification or waiver, as applicable. Refer to Sample Language for Manufacturers’ Certification provided in these Contract Documents.

SC-7.07.A – Amend by adding the following to the end of the paragraph:

The total amount of work subcontracted by the Contractor shall not exceed fifty percent of the Contract price without prior approval from the Owner, Engineer and Agency.

SC-7.07.B – Delete paragraph in its entirety and insert “Deleted”.

SC-7.07.E – Delete the second sentence of paragraph and insert the following in its place:

Owner may not require that Contractor use a specific replacement.

7.10 Taxes

SC-7.10 Add a new paragraph immediately after Paragraph 7.10.A:

- A. Owner is exempt from payment of sales and compensating use taxes of the State of NC and of cities and counties thereof on all materials to be incorporated into the Work.**
 - 1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.**
 - 2. Owner’s exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.**

SC-7.12.A Amend paragraph by adding the following after “written interpretations and clarifications,”:

Manufacturers’ Certifications,

7.13 *Safety and Protection*

SC-7.13 Insert the following after the second sentence of Paragraph 7.13.G:

The following Owner safety programs are applicable to the Work: **City of Mount Airy Safety Policies, OSHA regulations, and Owner's safety programs are included in or addressed in the Specifications, SC-7.13 may be used to provide a cross-reference to the Specification section].**

SC-7.16.A.1.c – Amend paragraph by deleting the last period and adding:

, including Manufacturer's Certification, or waiver for any item in the submittal subject to Domestic Preference requirements. Refer to the Sample Language for Manufacturers' Certification provided in these Contract Documents.

SC-7.16.C.9 – Add new paragraph immediately after Paragraph 7.16.C.8:

9. Engineer's review and approval of a Shop Drawing or Sample shall include review of Manufacturers' Certifications and any waivers in order to document compliance with Domestic Preference requirements, as applicable.

SC-7.17.F – Add new paragraph immediately after Paragraph 7.17.E:

F. Contractor shall certify prior to final payment that all Work and Materials have complied with Domestic Preference requirements. Contractor shall provide Certification to Owner and Engineer. Refer to the Sample Language for Contractor's Certification provided in these Contract Documents.

ARTICLE 8—OTHER WORK AT THE SITE

8.02 *Coordination*

SC-8.02 Add the following new Paragraph 8.02.C immediately after Paragraph 8.02.B:

- C. Owner intends to contract with others for the performance of other work at or adjacent to the Site.
 - 1. **City of Mount Airy** shall have authority and responsibility for coordination of the various contractors and work forces at the Site;
 - 2. The following specific matters are to be covered by such authority and responsibility: **underground on-site utilities;**
 - 3. The extent of such authority and responsibilities is: **[Here provide the extent].**

ARTICLE 9—OWNER’S RESPONSIBILITIES

9.13 *Owner’s Site Representative*

SC-9.13 Add the following new paragraph immediately after Paragraph 9.12 of the General Conditions:

9.13 *Owner’s Site Representative*

- A. Owner will furnish an “Owner’s Site Representative” to represent Owner at the Site and assist Owner in observing the progress and quality of the Work. The Owner’s Site Representative is not Engineer’s consultant, agent, or employee. Owner’s Site Representative will **be City of Mount Airy Engineering Staff**. The authority and responsibilities of Owner’s Site Representative follow: **Construction Inspection**.

ARTICLE 10—ENGINEER’S STATUS DURING CONSTRUCTION

10.03 *Resident Project Representative*

SC-10.03 Add the following new subparagraph immediately after Paragraph 10.03.A:

1. On this Project, by agreement with the Owner, the Engineer will not furnish a Resident Project Representative to represent Engineer at the Site or assist Engineer in observing the progress and quality of the Work.

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

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

- a. Conduct on-Site observations of the Work to assist Engineer in determining, to the extent set forth in Paragraph 10.02, if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Observe whether any Work in place appears to be defective.
 - c. Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection or approval.
- 5. *Inspections and Tests*
 - a. Observe Contractor-arranged inspections required by Laws and Regulations, including but not limited to those performed by public or other agencies having jurisdiction over the Work.
 - b. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work.
- 6. *Payment Requests: Review Applications for Payment with Contractor.*
- 7. *Completion*
 - a. Participate in Engineer's visits regarding Substantial Completion.
 - b. Assist in the preparation of a punch list of items to be completed or corrected.
 - c. Participate in Engineer's visit to the Site in the company of Owner and Contractor regarding completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.
 - d. Observe whether items on the final punch list have been completed or corrected.
- D. The RPR will not:
 - 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
 - 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
 - 3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
 - 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction.
 - 5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
 - 6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
 - 7. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 11—CHANGES TO THE CONTRACT

~~No suggested Supplementary Conditions in this Article.~~

SC-11.02.C – Add new paragraph immediately after Paragraph 11.02.B:

C. The Engineer or Owner shall contact the Agency for concurrence on each Change Order prior to issuance. All Contract Change Orders must be concurred on (signed) by Agency before they are effective.

SC-11.03.A.2 - Add new Paragraph 11.03.A.2 immediately after Paragraph 11.03.A, which shall be renamed Paragraph 11.03.A.1:

2. The Engineer or Owner shall contact the Agency for concurrence on each Work Change Directive prior to issuance. Once authorized by Owner, a copy of each Work Change Directive shall be provided by Engineer to the Agency.

SC-11.05.B – Add the following at the end of this paragraph:

For Owner-authorized changes in the Work, the Contractor will provide the Manufacturer’s Certification, or waiver, for materials subject to Domestic Preference requirements except when sole-source is specified, in which case the Engineer will provide the Manufacturer’s Certification, or waiver.

SC-11.09.B.2.c – Add new paragraph immediately after Paragraph 11.09.B.2.b:

c. For change orders involving materials subject to Domestic Preference requirements, Contractor shall include a Manufacturer’s Certification or waiver , as applicable. Refer to the Sample Language for Manufacturer’s Certification provided in these Contract Documents.

ARTICLE 12—CLAIMS

No suggested Supplementary Conditions in this Article.

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

~~13.01—Cost of the Work~~

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

~~The equipment rental rate book that governs the included costs for the rental of machinery and equipment owned by Contractor (or a related entity) under the Cost of the Work provisions of this Contract is the most current edition of [name of equipment rental rate book].~~

SC-13.01—~~Supplement Paragraph 13.01.C.2 by adding the following definition of small tools and hand tools:~~

~~a. For purposes of this paragraph, “small tools and hand tools” means any tool or equipment whose current price if it were purchased new at retail would be less than \$500.~~

SC-13.02.C – Delete paragraph in its entirety and insert "Deleted".

13.03 *Unit Price Work*

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

E. *Adjustments in Unit Price*

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

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

~~No suggested Supplementary Conditions in this Article.~~

SC-14.03.G – Add new paragraph immediately after Paragraph 14.03.F:

G. Installation of materials that are non-compliant with Domestic Preference requirements shall be considered defective work. Contractor should ensure that Engineer has an approved Manufacturer's Certification, or waiver, prior to any domestic preference compliant item being delivered to the project site.

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

15.01 *Progress Payments*

SC-15.01.B.4 – Add the following language at the end of paragraph:

No payments will be made that would deplete the retainage, place in escrow any funds that are required for retainage or invest the retainage for the benefit of the Contractor.

SC-15.01.B.5 – Add new paragraph immediately after Paragraph 15.01.B.4:

5. The Application for Payment form to be used on this Project is EJCDC® C-620. The Agency must approve all Applications for Payment before payment is made.

SC-15.01.B.6 – Add new paragraph immediately after Paragraph 15.01.B.5:

6. By submitting an Application for Payment, based in whole or in part on furnishing equipment or materials, Contractor certifies that such equipment and materials are compliant with Domestic Preference requirements. Manufacturer's Certification for material(s) satisfy these requirements. Refer to the Sample Language for Manufacturer's Certification provided in these Contract Documents.

SC-15.01.C.2.d – Add the following new paragraph immediately after Paragraph 15.01.C.2.c:

d. The materials presented for payment in an Application for Payment comply with Domestic Preference requirements.

SC-15.01.D.1 – Delete paragraph in its entirety and insert the following in its place:

The Application for Payment with Engineer's recommendations will be presented to the Owner and Agency for consideration. If both the Owner and Agency find the Application for Payment acceptable, the recommended amount less any reduction under the provisions of Paragraph 15.01.E will become due twenty (20) days after the Application for Payment is presented to the Owner, and the Owner will make payment to the Contractor.

SC-15.01 Add the following new Paragraph 15.01.F:

- F.** For contracts in which the Contract Price is based on the Cost of Work, if Owner determines that progress payments made to date substantially exceed the actual progress of the Work (as measured by reference to the Schedule of Values), or present a potential conflict with the Guaranteed Maximum Price, then Owner may require that Contractor prepare and submit a plan for the remaining anticipated Applications for Payment that will bring payments and progress into closer alignment and take into account the Guaranteed Maximum Price (if any), through reductions in billings, increases in retainage, or other equitable measures. Owner will review the plan, discuss any necessary modifications, and implement the plan as modified for all remaining Applications for Payment.

SC-15.02.A – Amend paragraph by striking out the following text: "7 days after".

15.03 *Substantial Completion*

SC-15.03.A – Modify by adding the following after the last sentence:

Contractor shall also submit the Contractor's Certification of Compliance certifying that to the best of the Contractor's knowledge and belief all Iron and Steel products, Manufactured Products, and Construction Materials proposed in the Shop Drawings, Change Orders, and Partial Payment Estimates, and those installed for the Project, comply with Domestic Preference requirements.

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

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

15.08 *Correction Period*

SC-15.08 Add the following new Paragraph 15.08.G:

- G. The correction period specified as one year after the date of Substantial Completion in Paragraph 15.08.A of the General Conditions is hereby revised to be the number of years set forth in SC-6.01.B.1; or if no such revision has been made in SC-6.01.B, then the correction period is hereby specified to be **[number]** years after Substantial Completion.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

No suggested Supplementary Conditions in this Article.

ARTICLE 17—FINAL RESOLUTIONS OF DISPUTES

17.02 *Arbitration*

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

17.02 *Arbitration*

- A. All matters subject to final resolution under this Article will be settled by arbitration administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules (subject to the conditions and limitations of this Paragraph SC-17.02). Any controversy or claim in the amount of \$100,000 or less will be settled in accordance with the American Arbitration Association's supplemental rules for Fixed Time and Cost Construction Arbitration. This agreement to arbitrate will be specifically enforceable under the prevailing law of any court having jurisdiction.
- B. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitration administrator, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the specific time required in Article 17, or if no specified time is applicable within a reasonable time after the matter in

question has arisen, and in no event will any such demand be made after the date when institution of legal or equitable proceedings based on such matter in question would be barred by the applicable statute of limitations.

- C. The arbitrator(s) must be licensed engineers, contractors, attorneys, or construction managers. Hearings will take place pursuant to the standard procedures of the Construction Arbitration Rules that contemplate in-person hearings. The arbitrators will have no authority to award punitive or other damages not measured by the prevailing party's actual damages, except as may be required by statute or the Contract. Any award in an arbitration initiated under this clause will be limited to monetary damages and include no injunction or direction to any party other than the direction to pay a monetary amount.
- D. The Arbitrators will have the authority to allocate the costs of the arbitration process among the parties, but will only have the authority to allocate attorneys' fees if a specific Law or Regulation or this Contract permits them to do so.
- E. The award of the arbitrators must be accompanied by a reasoned written opinion and a concise breakdown of the award. The written opinion will cite the Contract provisions deemed applicable and relied on in making the award.
- F. The parties agree that failure or refusal of a party to pay its required share of the deposits for arbitrator compensation or administrative charges will constitute a waiver by that party to present evidence or cross-examine witness. In such event, the other party shall be required to present evidence and legal argument as the arbitrator(s) may require for the making of an award. Such waiver will not allow for a default judgment against the non-paying party in the absence of evidence presented as provided for above.
- G. No arbitration arising out of or relating to the Contract will include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:
 - 1. the inclusion of such other individual or entity will allow complete relief to be afforded among those who are already parties to the arbitration;
 - 2. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration, and which will arise in such proceedings;
 - 3. such other individual or entity is subject to arbitration under a contract with either Owner or Contractor, or consents to being joined in the arbitration; and
 - 4. the consolidation or joinder is in compliance with the arbitration administrator's procedural rules.
- H. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the Laws and Regulations relating to vacating or modifying an arbitral award.
- I. Except as may be required by Laws or Regulations, neither party nor an arbitrator may disclose the existence, content, or results of any arbitration hereunder without the prior written consent of both parties, with the exception of any disclosure required by Laws and Regulations or the Contract. To the extent any disclosure is allowed pursuant to the

exception, the disclosure must be strictly and narrowly limited to maintain confidentiality to the extent possible.

17.03 Attorneys' Fees

SC-17.03 Add the following new paragraph immediately after Paragraph 17.02. [Note: If there is no Paragraph 17.02, because neither arbitration nor any other dispute resolution process has been specified here in the Supplementary Conditions, then revise this to state "Add the following new Paragraph immediately after Paragraph 17.01" and revise the numbering accordingly].

17.03 Attorneys' Fees

- A. For any matter subject to final resolution under this Article, the prevailing party shall be entitled to an award of its attorneys' fees incurred in the final resolution proceedings, in an equitable amount to be determined in the discretion of the court, arbitrator, arbitration panel, or other arbiter of the matter subject to final resolution, taking into account the parties' initial demand or defense positions in comparison with the final result.

ARTICLE 18—MISCELLANEOUS

~~18.08—Assignment of Contract~~

~~SC-18.08—Add the following new paragraph immediately after Paragraph 18.08.A:~~

- ~~B. The contract dated **[date]** between Owner as "buyer" and **[identify seller]** as "seller" for procurement of goods and special services ("procurement contract") **[is hereby] [will be]** assigned to Contractor by Owner, and Contractor **[accepts] [will accept]** such assignment. A form documenting the assignment is attached as an exhibit to this Contract.~~
 - ~~1. This assignment will occur on the **[Effective Date of the Contract]**, and will relieve the Owner as "buyer" from all further obligations and liabilities under the procurement contract.~~
 - ~~2. Upon assignment, the "seller" will be a Subcontractor or Supplier of the Contractor, and Contractor will be responsible for seller's performance, acts, and omissions, as set forth in Paragraph 7.07 of the General Conditions just as Contractor is responsible for all other Subcontractors and Suppliers.~~
 - ~~3. Notwithstanding this assignment, all performance guarantees and warranties required by the procurement contract will continue to run for the benefit of the Owner and, in addition, for the benefit of the Contractor.~~
 - ~~4. Except as noted in the procurement contract, all rights, duties and obligations of Engineer to "buyer" and "seller" under the procurement contract will cease **[upon the assignment to Contractor]**.~~

~~SC-18.11—Add new paragraph immediately after Paragraph 18.10:~~

~~18.11—Tribal Sovereignty~~

~~A. No provision of this Agreement will be construed by any of the signatories as abridging or debilitating any sovereign powers of the [insert name of Tribe] Tribe; affecting the trust-beneficiary relationship between the Secretary of the Interior, Tribe, and Indian landowner(s); or interfering with the government-to-government relationship between the United States and the Tribe.~~

SC-19 – Add the following new Article 19 immediately after Article 18:

Article 19 - FEDERAL REQUIREMENTS

19.01 *Agency Not a Party*

A. This Contract is expected to be funded in part with funds provided by Agency. Neither Agency, nor any of its departments, entities, or employees, is a party to this Contract.

19.02 *Contract Approval*

A. Owner and Contractor will furnish Owner's attorney such evidence as required so that Owner's attorney can complete and execute the "Certificate of Owner's Attorney" (Exhibit G of this Bulletin) before Owner submits the executed Contract Documents to Agency for approval.

B. Agency concurrence is required on both the Bid and the Contract before the Contract is effective.

19.03 *Conflict of Interest*

A. Contractor may not knowingly contract with a Supplier or Manufacturer if the individual or entity who prepared the Drawings and Specifications has a corporate or financial affiliation with the Supplier or Manufacturer. Owner's officers, employees, or agents shall not engage in the award or administration of this Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (i) the employee, officer or agent; (ii) any member of their immediate family; (iii) their partner or (iv) an organization that employs, or is about to employ, any of the above, has a financial interest or other interest in or a tangible personal benefit from the Contractor. Owner's officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from Contractor or subcontractors.

19.04 *Gratuities*

A. If Owner finds after a notice and hearing that Contractor, or any of Contractor's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of Owner or Agency in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations

related to the performance of this Contract, Owner may, by written notice to Contractor, terminate this Contract. Owner may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which Owner bases such findings shall be an issue and may be reviewed in proceedings under the dispute resolution provisions of this Contract.

B. In the event this Contract is terminated as provided in paragraph 19.04.A, Owner may pursue the same remedies against Contractor as it could pursue in the event of a breach of this Contract by Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, Owner may pursue exemplary damages in an amount (as determined by Owner) which shall not be less than three nor more than ten times the costs Contractor incurs in providing any such gratuities to any such officer or employee.

19.05 *Small, Minority and Women's Businesses*

A. If Contractor intends to let any subcontracts for a portion of the work, Contractor will take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. Affirmative steps will include:

1. Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
2. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
3. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;
4. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;
5. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

19.06 *Anti-Kickback*

A. Contractor shall comply with the Copeland Anti-Kickback Act (40 USC 3145) as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Buildings or Public Works Financed in Whole or in Part by Loans or Grants of the United States"). The Act provides that Contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public facilities, to give up any part of the compensation to which they are otherwise entitled. Owner shall report all suspected or reported violations to Agency.

19.07 *Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended*

A. Contractor to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

19.08 *Equal Employment Opportunity*

A. The Contract is considered a federally assisted construction contract. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of “federally assisted construction contract” in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, “Equal Employment Opportunity” (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” and implementing regulations at 41 CFR part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”

19.09 *Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)*

A. Contractors that apply or bid for an award exceeding \$100,000 must file the required certification (RD Instruction 1940-Q Exhibit A-1). The Contractor certifies to the Owner and every subcontractor certifies to the Contractor that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining the Contract if it is covered by 31 U.S.C. 1352. The Contractor and every subcontractor must also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the Owner. Necessary certification and disclosure forms shall be provided by Owner.

19.10 *Environmental Requirements*

A. When constructing a Project involving trenching and/or other related earth excavations, Contractor shall comply with the following environmental conditions:

1. Wetlands – When disposing of excess, spoil, or other Construction Materials on public or private property, Contractor shall not fill in or otherwise convert wetlands.
2. Floodplains – When disposing of excess, spoil, or other Construction Materials on public or private property, Contractor shall not fill in or otherwise convert 100-year floodplain areas (Standard Flood Hazard Area) delineated on the latest Federal Emergency Management Agency Floodplain Maps, or other appropriate maps, e.g., alluvial soils on NRCS Soil Survey Maps.

3. Historic Preservation - Applicants shall ensure that Contractors maintain a copy of the following inadvertent discovery plan onsite for review:

a. If during the course of any ground disturbance related to any Project, any post review discovery, including but not limited to, any artifacts, foundations, or other indications of past human occupation of the area are uncovered, shall be protected by complying with 36 CFR § 800.13(b)(3) and (c) and shall include the following:

i. All Work, including vehicular traffic, shall immediately stop within a 50 ft. radius around the area of discovery. The Contractor shall ensure barriers are established to protect the area of discovery and notify the Engineer to contact the appropriate RD personnel. The Engineer shall engage a Secretary of the Interior (SOI) qualified professional archeologist to quickly assess the nature and scope of the discovery; implement interim measures to protect the discovery from looting and vandalism; and establish broader barriers if further historic and/or precontact properties, can reasonably be expected to occur.

ii. The RD personnel shall notify the appropriate RD environmental staff member, the Federal Preservation Officer (FPO), and State Historic Preservation Office (SHPO) immediately. Indian tribe(s) or Native Hawaiian Organization (NHOs) that have an interest in the area of discovery shall be contacted immediately. The SHPO may require additional tribes or NHOs who may have an interest in the area of discovery also be contacted. The notification shall include an assessment of the discovery provided by the SOI qualified professional archeologist.

iii. When the discovery contains burial sites or human remains, the Contractor shall immediately notify the appropriate RD personnel who will contact the RD environmental staff member, FPO, and the SHPO. The relevant law enforcement authorities shall be immediately contacted by onsite personnel to reduce delay times, in accordance with tribal, state, or local laws including 36 CFR Part 800.13; 43 CFR Part 10, Subpart B; and the Advisory Council on Historic Preservation's Policy Statement Regarding treatment of Burial Sites, Human Remains, or Funerary Objects (February 23, 2007).

iv. When the discovery contains burial sites or human remains, all construction activities, including vehicular traffic shall stop within a 100 ft. radius of the discovery and barriers shall be established. The evaluation of human remains shall be conducted at the site of discovery by a SOI qualified professional. Remains that have been removed from their primary context and where that context may be in question

may be retained in a secure location, pending further decisions on treatment and disposition. RD may expand this radius based on the SOI professional's assessment of the discovery and establish broader barriers if further subsurface burial sites, or human remains can reasonably be expected to occur. RD, in consultation with the SHPO and interested tribes or NHOs, shall develop a plan for the treatment of native human remains.

v. Work may continue in other areas of the undertaking where no historic properties, burial sites, or human remains are present. If the inadvertent discovery appears to be a consequence of illegal activity such as looting, the onsite personnel shall contact the appropriate legal authorities immediately if the landowner has not already done so.

vi. Work may not resume in the area of the discovery until a notice to proceed has been issued by RD. RD shall not issue the notice to proceed until it has determined that the appropriate local protocols and consulting parties have been consulted.

vii. Inadvertent discoveries on federal and tribal land shall follow the processes required by the federal or tribal entity.

4. Endangered Species – Contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of Contractor, Contractor will immediately report this evidence to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the U.S. Fish and Wildlife Service.

5. Mitigation Measures – The following environmental mitigation measures are required on this Project: *[Insert mitigation measures from the Letter of Conditions here]*.

19.11 Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)

A. Where applicable, for contracts awarded by the Owner in excess of \$100,000 that involve the employment of mechanics or laborers, the Contractor will comply with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, the Contractor will compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic will be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles

ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

19.12 *Debarment and Suspension (Executive Orders 12549 and 12689)*

A. A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

19.13 *Procurement of recovered materials*

A. The Contractor will comply with 2 CFR Part 200.322, “Procurement of recovered materials.”

19.14 *Domestic Preference*

A. Build America, Buy America Act (BABAA). All Iron and Steel Products, Manufactured Products, and Construction Materials used in this project must comply with the Build America, Buy America Act (BABAA) requirements mandated by Title IX of the Infrastructure Investment and Jobs Act (IIJA), Pub. L. 117-58, §§ 70901-70953. Aggregates such as stone, sand, or gravel do not apply to BABAA

B. The following waivers apply to this Contract:

1. BABAA De Minimis, Small Grants and Minor Components
2. [add project specific waivers as applicable].

19.15 *Telecommunications and Video Surveillance Services or Equipment Prohibitions*

A. The telecommunication and video surveillance services and equipment prohibitions under 2 CFR 200.216 apply to this contract. This contract may not be used to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Covered telecommunications equipment is:

1. Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
2. Video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital

Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

3. Telecommunications or video surveillance services provided by such entities or using such equipment.

4. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

EXHIBIT A—SOFTWARE REQUIREMENTS FOR ELECTRONIC DOCUMENT EXCHANGE

Item	Electronic Documents	Transmittal Means	Data Format	Note (1)
a.1	General communications, transmittal covers, meeting notices and responses to general information requests for which there is no specific prescribed form.	Email	Email	
a.2	Meeting agendas, meeting minutes, RFI's and responses to RFI's, and Contract forms.	Email w/ Attachment	PDF	(2)
a.3	Contractors Submittals (Shop Drawings, "or equal" requests, substitution requests, documentation accompanying Sample submittals and other submittals) to Owner and Engineer, and Owner's and Engineer's responses to Contractor's Submittals, Shop Drawings, correspondence, and Applications for Payment.	Email w/ Attachment	PDF	
a.4	Correspondence; milestone and final version Submittals of reports, layouts, Drawings, maps, calculations and spreadsheets, Specifications, Drawings and other Submittals from Contractor to Owner or Engineer and for responses from Engineer and Owner to Contractor regarding Submittals.	Email w/ Attachment or LFE	PDF	
a.5	Layouts and drawings to be submitted to Owner for future use and modification.	Email w/ Attachment or LFE	DWG	
a.6	Correspondence, reports and Specifications to be submitted to Owner for future word processing use and modification.	Email w/ Attachment or LFE	DOC	
a.7	Spreadsheets and data to be submitted to Owner for future data processing use and modification.	Email w/ Attachment or LFE	EXC	
a.8	Database files and data to be submitted to Owner for future data processing use and modification.	Email w/ Attachment or LFE	DB	
Notes				
(1)	All exchanges and uses of transmitted data are subject to the appropriate provisions of Contract Documents.			
(2)	Transmittal of written notices is governed by Paragraph 18.01 of the General Conditions.			
Key				
Email	Standard Email formats (.htm, .rtf, or .txt). Do not use stationery formatting or other features that impair legibility of content on screen or in printed copies			
LFE	Agreed upon Large File Exchange method (FTP, CD, DVD, hard drive)			
PDF	Portable Document Format readable by Adobe® Acrobat Reader Version [number] or later			
DWG	Autodesk® AutoCAD .dwg format Version [number]			
DOC	Microsoft® Word .docx format Version [number]			
EXC	Microsoft® Excel .xls or .xml format Version [number]			
DB	Microsoft® Access .mdb format Version [number]			

EXHIBIT B—FORESEEABLE BAD WEATHER DAYS

Month	Number of Foreseeable Bad Weather Days in Month Based on Precipitation as Rain Equivalent (0.25") (1)	Ambient Outdoor Air Temperature (degrees F)	
		Number of Foreseeable Bad Weather Days in Month Based on Low Temperature 32 degrees (at 11:00 a.m.)	Number of Foreseeable Bad Weather Days in Month Based on High Temperature 95 degrees (at 3:00 p.m.)
January	4	18	0
February	4	13	0
March	5	6	0
April	5	1	0
May	6	0	0
June	5	0	0
July	6	0	1
August	6	0	1
September	5	0	0
October	3	0	0
November	4	6	0
December	5	13	0
Notes:			
1. Two inches of sleet equal one inch of rain. Five inches of wet, heavy snow equal one inch of rain. Fifteen inches of "dry" powder snow equals one inch of rain.			

Exhibit B—Foreseeable Bad Weather Days.

EJCDC® C-800, Supplementary Conditions of the Construction Contract.

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Modified to include RD edits from RUS Bulletin 1780-26 (6/16/2020).

EXHIBIT C—GEOTECHNICAL BASELINE REPORT SUPPLEMENT TO THE SUPPLEMENTARY CONDITIONS

1.01 Definitions

SC-1.01 Add to the list of definitions in Paragraph 1.01.A by inserting the following as numbered items in their proper alphabetical positions:

- ~~1. *Geotechnical Baseline Report (GBR)*—The interpretive report prepared by or for Owner regarding subsurface conditions at the Site, and containing specific baseline geotechnical conditions that may be anticipated or relied upon for bidding and contract administration purposes, subject to the controlling provisions of the Contract, including the GBR’s own terms. The GBR is a Contract Document.~~
- ~~2. *Geotechnical Data Report (GDR)*—The factual report that collects and presents data regarding actual subsurface conditions at or adjacent to the Site, including Technical Data and other geotechnical data, prepared by or for Owner in support of the Geotechnical Baseline Report. The GDR’s content may include logs of borings, trenches, and other site investigations, recorded measurements of subsurface water levels, the results of field and laboratory testing, and descriptions of the investigative and testing programs. The GDR does not include an interpretation of the data. If opinions, or interpretive or speculative non-factual comments or statements appear in a document that is labeled a GDR, such opinions, comments, or statements are not operative parts of the GDR and do not have contractual standing. Subject to that exception, the GDR is a Contract Document.~~

5.03 Subsurface and Physical Conditions

SC-5.03 Delete Paragraph 5.03 in its entirety and replace with the following:

5.03 Subsurface and Physical Conditions

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

1. those reports of explorations and tests of subsurface conditions at or adjacent to the Site (other than any Geotechnical Data Report or Geotechnical Baseline Report) that contain Technical Data. Such reports are as follows:
 - a. *Report Title:* **N/A**
 - b. *Date of Report:* **N/A**
 - c. *Technical Data in report upon which Contractor may rely:* **[Identify Technical Data (for example, “Boring Log, Test Site 3”) and specify page number or other reference where Technical Data is located within the report. List multiple Technical Data line items per entry when appropriate.]**
2. those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data. Such drawings are as follows:
 - a. *Drawings Title:* **Franklin Street Streetscape and Parking Lot Improvements**
 - b. *Date of Drawings:* **May, 2025**

- c. ~~Technical Data in drawings upon which Contractor may rely: [Identify Technical Data (for example, "Plan View of Rock Outcroppings") in drawings, or state "All information in drawing" if entire content is Technical Data entitled to reliance; and specify drawing number, page number, or other reference where the Technical Data is located. List multiple Technical Data line items per entry when appropriate.]~~
3. ~~Contractor may examine copies of reports and drawings identified immediately above that were not included with the Bidding Documents at [location] during regular business hours, or may request copies from Engineer, at the cost of reproduction.~~
- B. ~~Underground Facilities: Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph SC 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.~~
- C. ~~Reliance by Contractor on Technical Data 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 Paragraph 1.01.A.46.b.~~
- D. ~~Limitations of Other Data and Documents: Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:~~
- ~~1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or~~
 - ~~2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or~~
 - ~~3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or~~
 - ~~4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.~~
- E. ~~Geotechnical Baseline Report~~
- ~~1. This Contract contains a Geotechnical Baseline Report ("GBR"), identified as follows: [Example: Geotechnical Baseline Report for Northwest Interceptor, dated February 12, 2013, prepared by ABC Geotechnical Engineers, Inc., Sacramento, California]. This Contract also contains a Geotechnical Data Report (GDR), identified as follows: [Example: Geotechnical Data Report for Northwest Interceptor, dated June 15, 2012, prepared by ABC Geotechnical Engineers, Inc., Sacramento, California].~~
 - ~~2. The GBR and GDR are incorporated as Contract Documents. The GBR and GDR are to be used in conjunction with other Contract Documents, including the Drawings and~~

Specifications. If there is a conflict between the terms of the GBR and the GDR, the GBR's terms prevail.

- ~~3. The GBR describes certain select subsurface conditions that are anticipated to be encountered by Contractor during construction in specified locations (referred to here in the Supplementary Conditions as "Baseline Conditions"). These may include ground, geological, groundwater, and other subsurface geotechnical conditions, and baselines of anticipated Underground Facilities or subsurface structures.~~
- ~~4. The Baseline Conditions will be used to assist in the administration of the Contract's differing site conditions clause at locations where subsurface conditions have been baselined. If a condition is baselined in the GBR, then only the pertinent Baseline Conditions will be used to determine whether there is a differing site condition; and no other indication of that condition in the Contract Documents or Technical Data, or of a condition that describes, quantifies, or measures a similar characteristic of the subsurface, will be used for the differing site condition determination.~~
- ~~5. The Baseline Conditions will not be used to make differing site conditions determinations at locations that have not been baselined in the GBR, or at any location with respect to subsurface conditions that the Baseline Conditions do not address. If Underground Facilities or Hazardous Environmental Conditions are expressly addressed in the Baseline Conditions, then comparison to such Baseline Conditions will be the primary means of determining (a) whether an Underground Facility was shown or indicated with reasonable accuracy, as provided in Paragraph 5.05 of the General Conditions, or (b) whether a Hazardous Environmental Condition was shown or indicated in the Contract Documents as indicated in Paragraph 5.06.H of the General Conditions. As indicated in Paragraph SC-5.04 below, the GDR will be the primary resource for differing site conditions determinations in cases in which the GBR is inapplicable.~~
- ~~6. The descriptions of subsurface conditions provided in the GBR are based on geotechnical investigations, laboratory tests, interpretation, interpolation, extrapolation, and analyses. Neither Owner, Engineer, nor any geotechnical or other consultant warrants or guarantees that actual subsurface conditions will be as described in the GBR, nor is the GBR intended to warrant or guarantee the use of specific means or methods of construction.~~
- ~~7. The behavior of the ground during construction depends substantially upon the Contractor's selected means, methods, techniques, sequences, and procedures of construction. If ground behavior conditions are baselined in the GBR, they are based on stated assumptions regarding construction means and methods.~~
- ~~8. The GBR will not reduce or relieve Contractor of its responsibility for the planning, selection, and implementation of safety precautions and programs incident to Contractor's means, methods, techniques, sequences, and procedures of construction, or to the Work.~~

~~5.04 — Differing Subsurface or Physical Conditions~~

~~SC-5.04 — Delete Paragraph 5.04 in its entirety and replace with the following:~~

~~5.04 — Differing Subsurface or Physical Conditions~~

~~A. — Notice: If Contractor believes that any subsurface condition that is uncovered or revealed at the Site:~~

- ~~1. — differs materially from conditions shown or indicated in the GBR; or~~
- ~~2. — differs materially from conditions shown or indicated in the GDR, to the extent the GBR is inapplicable; or~~
- ~~3. — differs materially from conditions shown or indicated in Contract Documents other than the GBR or GDR, to the extent the GBR and GDR are inapplicable; or~~
- ~~4. — to the extent the GBR and GDR are inapplicable, 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~~
- ~~5. — to the extent the GBR and GDR are inapplicable, is of such a nature as to require a change in the Drawings or Specifications; or~~
- ~~6. — to the extent the GBR and GDR are inapplicable, 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 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 SC-5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption or continuation 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 or continuation of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.~~

~~D. — Early Resumption of Work: If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of~~

Exhibit C—Geotechnical Baseline Report Supplement to the Supplementary Conditions.

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Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

~~E. Possible Price and Times Adjustments~~

- ~~1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:~~
 - ~~a. such condition must fall within any one or more of the categories described in Paragraph SC-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 of the General Conditions; and~~
 - ~~c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.~~
- ~~2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:~~
 - ~~a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; 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 SC-5.04.A.~~
- ~~3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment must be set forth in a Change Order.~~
- ~~4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.~~

~~F. Underground Facilities; Hazardous Environmental Conditions: Paragraph 5.05 of the General Conditions governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 of the General Conditions governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs SC-5.03 and SC-5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.~~

**CITY OF MOUNT AIRY
TECHNICAL SPECIFICATIONS**

SECTION 1 - GENERAL

1.00 Scope of Work

The work required under this Contract, and in accordance with these Specifications, consists of furnishing equipment, superintendence, labor, skill, material, and all other items necessary for the construction pertaining to this Contract. The Contractor shall perform all work required for such construction in accordance with the Contract Documents, and subject to the terms and conditions of the Contract, complete and ready for use.

1.01 General Arrangement

Contract Drawings indicate the extent and general arrangement of the work. If any departures from the Contract Drawings are deemed necessary by the Contractor to accommodate the materials and equipment he/she proposes to furnish, details of such departures and reasons therefore shall be submitted as soon as practicable to the City for approval. No such departures shall be made without the prior written approval of the City. Approved changes shall be made without additional cost to the City.

The specific equipment proposed for use by the Contractor on the project may require change, in structures, piping, or other work to provide a complete satisfactory operating installation. The Contractor shall submit to the City for approval, all necessary Drawings and Details showing such changes to verify conformance with the overall performance requirements. The Bid Price shall include all costs in connection with the preparation of new Drawings and details and all changes to construction work to accommodate the proposed equipment.

1.02 Additional City's Expenses

In the event the work of this Contract is not completed within the time set forth in the Contract or within the time to which such completion may have been extended in accordance with the Contract Documents, the additional engineering or inspection charges incurred by the City may be charged to the Contractor and deducted from the monies due him/her. Extra work or supplemental Contract work added to the original Contract, as well as extenuating circumstances beyond the control of the Contractor, will be given due consideration by the City before assessing engineering and inspection charges against the Contractor.

1.03 Time of Work

Unless otherwise specifically permitted, work shall generally be done between the hours of 7:00 a.m. and 7:00 p.m., and not on Saturdays or Sundays, except as necessary, for the proper care and protection of work already performed. No work shall be done on the following holidays observed by the City: New Year's Day, Martin Luther King Day, Easter Friday, Memorial Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving (2 days), and Christmas (2 days).

If it shall become imperative to perform work at night, the City shall be informed a reasonable time in advance of the beginning of such work. Temporary lighting and all other necessary facilities for performing and inspecting the work shall be provided and maintained by the Contractor.

Unless otherwise specifically permitted, all work that would be subject to damage shall be stopped during inclement, stormy, or freezing weather. Only such work as will not suffer injury to workmanship or materials will be permitted. Contractor shall carefully protect the work against damage or injury from the weather; and when work is permitted during freezing weather, the contractor shall provide and maintain approved facilities for heating the materials and for protecting the finished work.

1.04 Limits of Work Area

The Contractor shall confine the construction operations within the limits of public rights-of-way or easements shown on the Contract Drawings. Storage of equipment and materials, or erection and use of sheds or trailers outside these limits, if such areas are the property of the City, shall be used only with the City's approval. Storage of materials or equipment on private property outside the designated easements will not be permitted unless the Contractor secures written approval from the property owner. This agreement shall clearly define the terms and conditions of the approval including any rents or payments as requested by the property owner.

Subsurface Data – No subsurface investigation was done for this Contract.

The Bidder may make his/her own subsurface investigation as he/she deems necessary to determine, to their satisfaction, the subsurface conditions. All borings or test pits must be coordinated with the City and back filled in an acceptable manner.

The Bidder further acknowledges that he/she assumes all risks contingent upon the nature of the subsurface conditions to be actually encountered by him/her in performing the work covered by the Contract, even though such actual conditions may result in the Bidder performing more or less work than he/she originally anticipated.

1.05 Protection of Property and Structures

Contractor shall be responsible for the preservation and protection of property adjacent to the work site against damage or injury as a result of his/her operations under this Contract. The Contractor shall, at his/her own expense, sustain in their places and protect from direct or indirect injury all pipes, poles, conduits, walls, buildings and other structures, utilities and property in the vicinity of their work. Such sustaining and supporting shall be carefully done by the Contractor as required by the Company or party owning the structure or Agency controlling it. The Contractor shall take all risks attending the presence or proximity of pipes, poles, conduits, walls, buildings and other structures, utilities and property in the vicinity of the work and he/she shall be responsible for all damage caused by his/her work, to any of them, or to any person or property by reason of injury to them whether such structures are or are not shown on the Contract Drawings. Any damage or injury occurring on account of any act, omission or negligence on the part of the Contractor shall be restored in a proper and satisfactory manner or replaced by and at the expense of the Contractor to an equal or superior

condition than previously existed.

Contractor shall comply promptly with such safety regulations as may be prescribed by the City, or the local authorities having jurisdiction, and shall when so directed, properly correct any unsafe conditions created by, or unsafe practices on the part of his/her employees. In the event of the Contractor's failure to comply, the City may take the necessary measures to correct the conditions or practices complained of; and all costs thereof will be deducted from any monies due the Contractor. Failure of the City to direct the correction of unsafe conditions or practices shall not relieve the Contractor of his/her responsibility hereunder.

In the event of any claims for damage or alleged damage to property as a result of work under this Contract, the Contractor shall be responsible for all costs in connection with the settlement of or defense against such claims. Prior to commencing work in the vicinity of property adjacent to the work site, the Contractor at his/her own expense shall take such surveys as may be necessary to establish the existing condition of the property. Before final payment can be made, the Contractor shall furnish satisfactory evidence that all claims for damage have been legally settled or sufficient funds to cover such claims have been placed in escrow, or that an adequate bond to cover such claims has been obtained.

1.06 Existing Utilities and Structures

The term existing utilities shall be deemed to refer to both publicly-owned and privately-owned utilities such as electric power and lighting, telephone, water, gas, storm drains, and sanitary sewers, and all appurtenant structures.

THE INFORMATION ON THE CONTRACT DRAWINGS IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, BUT IS NOT GUARANTEED TO BE CORRECT OR COMPLETE. UNDERGROUND STRUCTURES NOT SHOWN MAY BE ENCOUNTERED. THE CONTRACTOR SHALL HEREBY DISTINCTLY UNDERSTAND THAT THE CITY IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THE INFORMATION GIVEN; THAT THE CONTRACTOR SHALL HAVE NO CLAIM FOR DELAY OR EXTRA COMPENSATION ON ACCOUNT OF INCORRECTNESS, INSUFFICIENCY, OR ABSENCE OF INFORMATION REGARDING OBSTRUCTIONS REVEALED OR NOT REVEALED BY THE CONTRACT DRAWINGS; AND THAT HE/SHE SHALL NOT HAVE CLAIM FOR RELIEF FROM ANY OBLIGATION OR RESPONSIBILITY UNDER THE CONTRACT BECAUSE THE EXTENT, LOCATION, SIZE OR CHARACTER OF ANY PIPE OR OTHER UNDERGROUND STRUCTURE IS INCORRECTLY SHOWN OR HAS BEEN OMITTED FROM THE CONTRACT DRAWINGS.

The location of the pipes and structures as shown on the Contract Drawings is in accordance with the best information available, as to the obstructions to be avoided, but can be considered only as approximate and may be changed by the City if the progress of work reveals other obstructions.

The work shall be carried out in a manner to prevent disruption of existing services and to avoid damage to the existing utilities. Temporary connections shall be provided, as required, to insure no interruption of the existing services. Any damage resulting from the work of this Contract shall be promptly repaired by the Contractor at his/her own expense in a manner approved by the City and further subject to the requirements of any authority having jurisdiction. Where it is required by the authority having jurisdiction that they perform their own repairs or have them done by others, the Contractor shall be responsible for all costs thereof.

Where excavations by the Contractor require any utility lines or appurtenant structures to be temporarily supported and otherwise protected during the construction work, such support and protection shall be provided by the Contractor. All such work shall be performed in a manner satisfactory to the City and the respective authority having jurisdiction over such work. In the event the Contractor fails to provide proper support or protection to any existing utility, the City may, at their discretion, have the respective authority provide such support or protection as may be necessary to insure the safety of such utility; and the costs of such measures shall be paid by the Contractor.

1.07 Field Verification of Utilities and Interferences

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE LOCATION AND ELEVATION OF ALL UTILITIES AND STRUCTURES WHICH CROSS THE WORK SITES OR WHICH MAY BE AFFECTED BY HIS/HER OPERATIONS. The Contractor shall excavate as needed to verify exact locations or elevations of utilities or other interferences in order to assure proper protection of existing utilities or structures. No extra payment will be made for such field verification or any excavations or other work or expense incurred by the Contractor in properly locating and protecting utilities or other interferences.

1.08 Applicable Standards and Codes

Wherever reference is made to any published standards, codes, or standard specifications, it shall mean the latest standard code, specification, or tentative specification of the technical society, organization, or body referred to, which is in effect at the date of the Notice to Bidders.

The following is a partial list of typical abbreviations that may be used in the specifications and the organizations to which they refer:

AASHTO	- American Association of State Highway Transportation Officials
ACI	- American Concrete Institute
ACIFS	- American Cast Iron Flange Standards
AGA	- American Gas Association
AGMA	- American Gear Manufacturers Association
AIA	- American Institute of Architects
AISC	- American Institute of Steel Construction
ANSI	- American National Standard Institute
API	- American Petroleum Institute
ASCE	- American Society of Civil Engineers
ASHRAE	- American Society of Heating, Refrigeration and Air Conditioning Engineers
ASME	- American Society of Mechanical Engineers
ASTM	- American Society of Testing and Materials
AWS	- American Welding Society
AWWA	- American Water Works Association
CRSI	- Concrete Reinforcing Steel Institute
EEI	- Edison Electric Institute
Fed. Spec	- Federal Specifications
IEEE	- Institute of Electrical and Electronic Engineers
IPCEA	- Insulated Power Cable Engineers Association
ISO	- Insurance Service Offices
NBS	- National Bureau of Standards
NCDEQ	- North Carolina Department of Environmental Quality
NCDOT	- North Carolina Department of Transportation
NEC	- National Electric Code
NEM	- National Electrical Manufacturers Association
OSHA	- Occupational Safety and Health Act
UL	- Underwriters Laboratory

Contractor shall, when required, furnish evidence satisfactory to the City that materials and methods are in accordance with such standards where so specified.

In the event any questions arise as to the application of these standards or codes, copies shall be supplied on site by the Contractor.

1.09 Working Drawings

Before fabrication of any materials, the Contractor shall submit shop drawings to the City for review. The Contractor shall be responsible for securing all of the information, details, dimensions, drawings, etc., necessary to prepare the shop drawings. The Contractor shall field verify all dimensions and elevations required for completeness and accuracy of the drawings.

Shop drawings shall be submitted for the following:

- a. Pipes, fittings and joints (all sizes and materials)
- b. All reinforced concrete structures and manholes (including steps, frames and covers).
- c. Hydrants, valves, couplings, and valve boxes.

All submittals shall be thoroughly checked by the contractor for accuracy and conformance to the intent of the contract documents before being submitted to the City and shall bear the contractor's stamp of approval certifying that they have been so checked. Submittals without the contractor's stamp of approval will not be reviewed by the City and will be returned to the contractor.

Submittals shall be transmitted in sufficient time to allow the City at least twenty days for review and processing.

The Contractor shall transmit five (5) prints of each submittal to the City for review. All submittals shall be accompanied by a letter of transmittal, in duplicate, containing date, project title, Contractor's name, number and titles of submittals, notification of departures, and any other pertinent data to facilitate review.

If a submittal is satisfactory to the City, the City will annotate the submittal "Furnish as Submitted" or "Furnish as Corrected", retain three (3) copies, and return all remaining to the Contractor. Unless noted, no further re-submittals are required if annotated as above. If a re-submittal is required, the City will annotate the submittal "Revise and Resubmit" and transmit three (3) copies to the Contractor for appropriate action. The Contractor shall revise and resubmit submittals as required by the City until submittals are acceptable to the City. It is understood by the Contractor that the City may charge the Contractor for the review in the event a submittal is not approved (either "Furnish as Submitted" or "Furnish as Corrected") by the third submittal for a system or piece of equipment. These charges shall be for all costs associated with engineering review, meetings with the Contractor or manufacturer, etc. commencing with the fourth submittal of a system or type of equipment submitted for a particular Specification Section.

The acceptance of a Working Drawing by the City will constitute acceptance of the subject matter for which the drawing was submitted and not for any other structure, material, equipment, or appurtenances indicated as shown.

The City's review of the Contractor's submittals shall in no way relieve the Contractor of any of his/her responsibilities under the Contract. An acceptance of a submittal shall be interpreted to mean that the City has no specific objections to the submitted material subject to conformance with the Contract Drawings and Specifications.

The City's review will be confined to general arrangement and compliance with the Contract Drawings and Specifications only, and will not be for the purpose of checking dimensions, weights, clearances, fitting, tolerances, interferences, coordination of trades, etc.

1.10 Equipment and Materials

All equipment, materials, instruments, or devices incorporated in this project shall be new and unused, unless indicated otherwise in the Contract Documents.

Equipment and materials to be incorporated in the work shall be delivered sufficiently in advance of their installation and use to prevent delay in the execution of the work, and they shall be delivered as nearly as feasible in the order required for executing the work.

The Contractor shall protect all equipment and materials from deterioration and damage. Any equipment or materials of whatever kind which may have become damaged or deteriorated from any cause shall be removed and replaced by good satisfactory items and at the Contractor's expense for both labor and materials.

Storage - Contractor shall store his/her equipment and materials at the contractors designated storage area in accordance with the manufacturer's recommendations and as directed by the City, and in conformity to applicable statutes, ordinances, regulations, and rulings of the public authority having jurisdiction.

Contractor shall not store unnecessary materials or equipment on the job site and shall take care to prevent any structure from being loaded with a weight which will endanger its security or the safety of persons.

Materials shall not be placed within twenty (20) feet of fire hydrants. Gutters, drainage channels, and inlets shall be kept unobstructed at all times.

The Contractor shall enforce the instructions of the City regarding the posting of regulatory signs for loadings on structures, fire safety, and smoking areas.

1.11 Operation and Maintenance Instructions/Manuals

Individual Instructions - The Contractor, through manufacturer's representatives or other qualified individuals, shall provide instruction of designated employees of the City in the operation and care of all equipment installed hereunder.

Written Instructions - The Contractor shall furnish and deliver to the City, prior to the 80% completion point of construction, five (5) complete sets of instructions, technical bulletins, and any other printed matter such as diagrams, prints or drawings, containing full information required for the proper operation, maintenance, and repair of the equipment. Included in this submission shall be a spare parts diagram and complete spare parts list. These requirements are a prerequisite to the operation and acceptance of equipment. Each set of instructions shall be bound together in appropriate three-ring binders. A detailed Table of Contents shall be provided for each set. Written operation and maintenance instructions shall be required for all equipment items supplied for this project. The amount of detail shall be commensurate with the complexity of the

equipment item.

Information not applicable to the specific piece of equipment installed on this project shall be struck from the submission. Information provided shall include a source of replacement parts and names of service representatives, including address and telephone number.

When written instructions include shop drawings and other information previously reviewed by the City, and which accurately depict the equipment installed, shall be incorporated in the instructions. Extensive pictorial cuts of equipment are required for operator reference in servicing.

1.12 Substitutions

Whenever a particular brand or make of material, equipment, or other item is specified, or is indicated on the Contract Drawings, it is for the purpose of establishing a standard of quality, design, and type desired and to supplement the detailed Specifications. Any other brand or make, which in the opinion of the City, is equivalent to that specified or indicated may be offered as a substitute to the following provisions:

- A. Contractor shall submit for each proposed substitution sufficient details, complete descriptive literature, and performance data together with samples of the materials, where feasible, to enable the City to determine if the proposed substitution is equal.
- B. Contractor shall submit certified tests, where applicable, by an independent laboratory attesting that the proposed substitution is equal.
- C. A list of installations where the proposed substitution is equal.
- D. Requests for substitutions shall include full information concerning cost savings resulting from such substitutions to the City.
- E. Where the approval of a substitution requires revision or redesign of any part of the work, all such revision and redesign, and all new drawings and details required therefore, shall be provided by the Contractor at his/her own cost and expense, and shall be subject to the approval of the City.
- F. In all cases, the City shall be the sole judge as to whether a proposed substitution is to be approved. The Contractor shall abide by the City's decision when proposed substitute items are judged to be unacceptable and shall in such instances furnish the item specified or indicated. No substitute items shall be used in the work without written approval of the City.

The Contractor shall have and make no claim for an extension of time or for damages by reason of the time taken by the City in considering a substitution proposed by the Contractor or by reason of the failure of the City to approve a substitution proposed by the Contractor. Acceptance of any proposed substitution shall in no way release the Contractor from any of the provisions of the Contract Documents.

1.13 Imperfect Work, Equipment, or Materials

Any defective or imperfect work, equipment, or materials furnished by the Contractor which is discovered before the final acceptance of the work, as established by the Certificate of Substantial Completion, or during subsequent guarantee period, shall be removed immediately even though it may have been overlooked by the City and estimated for payment. Any equipment or materials condemned or rejected by the City shall be tagged as such and shall be immediately removed from the site. Satisfactory work or materials shall be substituted for that rejected.

The City may order tests of imperfect or damaged work, equipment, or materials to determine the required functional capability for possible acceptance, if there is no other reason for rejection. The cost of such tests shall be borne by the Contractor; and the nature, tester, extent, and supervision of the tests will be as determined by the City. If the results of the tests indicate that the required functional capability of the work, equipment, or material was not impaired, consistent with the final general appearance of the same, the work, equipment, or material may be deemed acceptable. If the results of such tests reveal that the required functional capability of the questionable work, equipment, or materials has been impaired, then such work, equipment, or materials shall be deemed imperfect and shall be replaced. The Contractor may elect to replace the imperfect work, equipment, or material in lieu of performing the tests.

1.14 Construction Permits, Easements and Encroachments

The City shall obtain or cause to be obtained all permanent and temporary construction easements as shown on the Contract Drawings. The Contractor shall verify that these agreements have been obtained and shall comply with the conditions set forth in each agreement.

The Contractor shall obtain and keep current any other necessary construction permits from those authorities or agencies having jurisdiction over land areas, utilities, or structures which are located within the Contract limits and which will be occupied, encountered, used, or temporarily interrupted by the Contractor's operations unless otherwise stated. Copies shall be maintained on-site at all times for review by the appropriate agency or the City. When construction permits are accompanied by regulations or requirements issued by a particular authority or agency, it shall be the Contractor's responsibility to familiarize himself/herself and comply with such regulations or requirements as they apply to his/her operations on this project.

1.15 Sanitary Regulations

Sanitary conveniences, in sufficient numbers, for the use of all persons employed on the work and properly screened from public observation, shall be provided and maintained at suitable locations by the Contractor, all as prescribed by State Labor Regulations and local ordinances, and finally removed from the site when no longer needed. The contents of same shall be removed and disposed of in a satisfactory manner, as the occasion requires. **THE CONTRACTOR SHALL RIGOROUSLY PROHIBIT THE COMMITTANCE OF NUISANCES WITHIN, ON, OR ABOUT THE WORK.** The Contractor shall supply sufficient drinking water for all his/her employees, but only from approved sources. The Contractor shall also obey and enforce other local sanitary regulations and orders.

1.16 Temporary Services

The Contractor shall make arrangements for providing electric power, fuel, heat, water, and other temporary services to prosecute his/her construction operations.

1.17 Traffic Regulation and Maintenance of Traffic

The Contractor shall obey all traffic laws and comply with all the requirements, rules, and regulations of the North Carolina Department of Transportation and local authorities having jurisdiction and to maintain adequate warning signal lights, barriers, etc., for the protection of traffic on public roadways.

The Contractor shall maintain traffic and protect the public from all damage to persons and property within the Contract limits, in accordance with the Contract Documents and all applicable State and local regulations. The Contractor shall conduct his/her operations so as to maintain and protect access, for vehicular and pedestrian traffic, to and from all properties adjoining or adjacent to those streets affected by his/her operations, and to subject the public to a minimum of delay and inconvenience. Suitable signs, barricades, cones, railings, etc., shall be erected and the work outlined by adequate lighting at night. Danger lights shall be provided as required. Watchmen and flagmen shall be provided as may be necessary for the protection of traffic.

Warning signs shall be provided along all highways while work is in progress; and where traffic direction is required, flaggers shall be designated by the Contractor to direct traffic past the equipment, machinery, or construction operations. Barricades and lights shall be provided as required to protect traffic. Where trenches have been cut in road shoulders on which traffic may pass at times, red flags, cones and warning signs shall be placed at frequent intervals and maintained until the shoulder is safe for travel. The traveling public shall be warned of the construction with signing that is in accordance with the latest edition of the **Manual on Uniform Traffic Control Devices**.

All signs and barricades shall meet the minimum requirements of and conform to the standard outline in the manual entitled "Manual on Uniform Traffic Control Devices for Streets and Highways", published by the United States Department of Transportation, Federal Highway Administration, 1978(or latest edition), and a sign supplement to the manual published by the North Carolina Department of Transportation, Division of Highways, Traffic Engineering Branch entitled "Construction and Maintenance Operations Supplement to the Manual on Uniform Traffic Control Devices in 1980", or

their latest supplement.

During the progress of the work, driveways, sidewalks, and crossings of highways and streets shall be kept open for the passage of pedestrians and traffic and shall not be unnecessarily obstructed unless authorized by the authority having jurisdiction over the same.

The Contractor shall take such measures, at his/her own expense, as may be necessary to keep the streets open for traffic and shall give advance notice to the local Fire and Police Departments of his/her proposed street operations at the beginning of each working day.

The Contractor shall, in writing, give residents 48-72 hours advance notice of his/her proposed street operations to allow residents to make other arrangements for driveway and street parking and access to driveways. The Contractor shall also give at least 24 hours advance notice to the Police Department for parking spaces required to be vacant for construction purposes.

The Contractor shall notify the North Carolina Department of Transportation at least five (5) working days in advance of work on State Highway Rights-Of-Way, and shall fully cooperate with the Department.

The Contractor shall construct and maintain, without extra compensation, such adequate and proper bridges over excavations as may be necessary or directed for the purpose of accommodating pedestrians or vehicles.

All temporary means constructed by the Contractor shall be removed upon completion of work unless otherwise specified by the City and any damage done to public or private property shall be repaired by the Contractor.

All dirt spilled from the Contractor's trucks on existing pavements over which it is hauled or which has otherwise been deposited thereon shall be removed by the Contractor whenever in the opinion of the City, North Carolina Department of Transportation or the local authorities having jurisdiction, the accumulation is sufficient to cause the formation of mud, dust, interference with traffic, or create a traffic hazard. The area shall be flushed as necessary or as directed by the City.

1.18 Weather Conditions

No work shall be done when the weather is unsuitable. The Contractor shall take necessary precautions (in the event of impending storms) to protect all work, materials, or equipment from damage or deterioration due to floods, driving rain or wind, and snow storms. The City reserves the right to order that additional protection measures over and beyond those proposed by the Contractor, be taken to safeguard all components of the project. The Contractor shall not claim any compensation for such precautionary measures so ordered, nor claim any compensation from the City for damage to the work from weather elements.

The mixing and placing of concrete or pavement courses, the laying of masonry, and installation of pipelines shall be stopped during rain storms, if ordered by the City; and

all freshly placed work shall be protected by canvas or other suitable covering in such manner as to prevent running water from coming in contact with it. Sufficient coverings shall be provided and kept ready at hand for this purpose.

1.19 Fire Protection

The Contractor shall take all necessary precautions to prevent fires at, or adjacent to the work and to his/her buildings. He/she shall provide adequate facilities for extinguishing fires which do occur. **BURNING OF TRASH OR DEBRIS WILL NOT BE PERMITTED, UNLESS A PERMIT IS OBTAINED FROM THE FIRE CHIEF.**

When fire or explosion hazards are created or exist in the vicinity of the work as a result of the locations of gas mains, fuel tanks, gas tanks, or similar hazardous utilities or devices, the Contractor shall immediately alert the Fire Chief, and the City of such utility, tank, or device to prevent the occurrence of fire or explosion.

The Contractor shall exercise all safety precautions and shall comply with all instructions issued by the Fire Chief and shall cooperate with the City to prevent the occurrence of fire or explosion.

1.20 Chemicals

All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, glue, polymer, reactant of other classifications, must show approval of either EPA or USDA. Contractor shall comply with requirements of the Occupational Safety Health Administration (OSHA) right to know law (1910.1200) and the Hazardous Waste Operations and Emergency Response law (1910.120) for use of all hazardous materials.

1.21 Safety and Health Regulations

The contractor shall comply with all applicable Occupational Safety Health Administration (OSHA) requirements in the General Industry (1910) and Construction (1926) Standards.

Each Contractor is to demonstrate the ability to conduct a safety program commensurate with the work under contract. The Contractor is to submit in writing a proposed comprehensive safety program to the City for approval before the contract is awarded. The program is to specifically state what provisions the Contractor proposes to take for the safety and health of all employees, including subcontractors and rental equipment operators. The program shall be site specific and provide details relevant to the work to be done, the hazards associated with the work, and the actions that will be necessary to minimize the identified hazards. The Contractor shall appoint a Safety Coordinator to represent the Contractor on all safety matters.

Representatives for the Contractor will be required to participate in a pre-job safety review with the City Safety Coordinator and the City Engineer or their representative before the start of construction. The purpose of this meeting will be to discuss the safety program and implementation of all health and safety standards pertinent to the work under this contract. A training calendar for supervisors and employees will be agreed upon at this meeting. Monthly meetings of Contractor and City representatives

will be held to review the effectiveness of the Contractor's safety effort, resolve current health and safety problems, and coordinate safety activities for upcoming work.

The City shall have access to any work permits or other safety related documentation upon request. A copy of all investigations of job related accidents and diseases shall be provided to the city each month. All fatal or serious incidents resulting in the hospitalization of three or more persons must be reported to the City within eight hours. Other occurrences with serious accident potential, such as equipment failures, slides, and cave-ins must also be reported to the City within eight hours.

The contractor shall conform to the following procedures before entering confined spaces (manholes, vaults, etc.).

A. Existing (live) manholes:

1. Pre-entry and continuous atmosphere monitor while manhole is occupied.

B. Newly constructed manholes:

1. Plug manhole at existing manhole tie-in;
2. Pre-entry and periodic monitor while manhole is occupied.

The City reserves the right to suspend work and/or terminate the contract if safety procedures are not followed, or if there is a refusal to comply.

1.22 Cooperation

The Contractor shall allow the City or designated agents, and other project contractors or their agents, to enter upon the work for the purpose of constructing, operating, maintaining, removing, repairing, altering, or replacing such pipes, conduits, manholes, wires, poles, or other structures and appliances now located on the site or which may be required to be installed at or in the work. The Contractor shall cooperate with all aforesaid parties and shall allow reasonable provisions for the prosecution of any other work by the City, or others, to be done in connection with his/her work, or in connection with normal use of any existing facilities.

1.23 Inspections and Tests

The Contractor shall allow the City ample time and opportunity for testing materials and equipment to be used in the work. The Contractor shall advise the City promptly upon placing orders for materials so that arrangements may be made, if desired, for inspection before shipment from the place of manufacture. The Contractor shall at all times furnish the City and his/her representatives, facilities including labor, and allow proper time for inspecting and testing materials, equipment, and workmanship. The Contractor must anticipate possible delays that may be caused him/her in the execution of the work due to the necessity of materials and equipment being inspected and accepted for use. The Contractor shall furnish at his/her own expense, all samples of materials required by the City for testing, and shall make his/her own arrangements for providing water, electric power, or fuel for the various inspections and tests of structures and equipment.

The Contractor shall furnish the services of representatives of the manufacturers of certain equipment, as prescribed in other Sections of the Specifications. The Contractor shall also place orders for such equipment on the basis that, after the equipment has been tested, prior to final acceptance of the work, the manufacturer shall furnish the City with certified statements that the equipment has been installed properly and is ready to be placed in functional operation. Tests and analyses required of equipment shall be paid for by the Contractor, unless specified otherwise in the Section which covers a particular piece of equipment.

Where other tests or analyses are specifically required in Standard Specifications, the cost shall be borne by the Contractor. The City will bear the cost of all tests, inspections, or investigations undertaken by the order of the City for the purpose of determining conformance with the Contract Documents, if such tests, inspection, or investigations are not specifically required by the Contract Documents, and if conformance is ascertained thereby. Whenever nonconformance is determined by the City as a result of such tests, inspections, or investigations, the Contractor shall bear the full cost thereof or shall reimburse the City for said cost. In this connection, the cost of any additional tests and investigations, which are ordered by the City to ascertain subsequent conformance with the Contract Documents, shall be borne by the Contractor.

1.24 Periodic Cleanup; Basic Site Restoration

During construction, the Contractor shall regularly remove from the site of the work all accumulated debris and surplus materials of any kind which result from his/her operations. Unused equipment and tools shall be stored as directed by the City.

When the work involves installation of sewers, drains, water mains, manholes, underground structures, or other disturbance of existing features in or across streets, rights-of-way, easements, or private property, the Contractor shall (as the work progresses) promptly backfill, compact, grade, and otherwise restore the disturbed area to the basic condition which will permit resumption of pedestrian or vehicular traffic and any other critical activity or functions consistent with the original use of the land. Unsightly mounds of earth, large stones, boulders, and debris shall be removed so that the site presents a neat appearance. The Contractor shall perform the cleanup work on a regular basis and as frequently as ordered by the City.

Basic site restoration in a particular area shall be accomplished immediately following the installation or completion of the required facilities in that area. Furthermore, such work shall also be accomplished, when ordered by the City, if partially completed facilities must remain incomplete for some time period due to unforeseen circumstances.

Upon failure of the Contractor to perform periodic cleanup and basic restoration of the site to the City's satisfaction, the City may, upon 24 hours prior written notice to the Contractor, without prejudice to any other rights or remedies of the City, cause such work for which the Contractor is responsible to be accomplished to the extent deemed necessary by the City, and all costs resulting therefrom shall be charged to the Contractor and deducted from the amounts of money that may be due him/her.

1.25 Dust Control

Contractor shall take all necessary measures to control dust from his/her operations, and to prevent spillage of excavated materials on public roads.

Contractor shall remove all spillage of excavated materials, debris or dust from public roads by methods approved by the City.

Contractor shall flush specified locations and at such frequencies as may be required by the City to control dust/mud and prevent it from becoming a nuisance to the surrounding area.

Dust control and cleaning measures shall be provided at no additional cost to the City.

1.26 Final Cleanup; Site Rehabilitation

Before finally leaving the site, the Contractor shall remove from the site of the work all accumulated debris and surplus materials of any kind which resulted from his/her operation, including construction equipment, tools, sheds, sanitary enclosures, etc. The Contractor shall leave all equipment, fixtures, and work, which he/she has installed, in a clean condition. The complete project shall be turned over to the City in a neat and orderly condition.

The site of the work shall be rehabilitated or developed in accordance with other sections of the Specifications and the Drawings. In the absence of any portion of these requirements, the Contractor shall completely rehabilitate the site to a condition and appearance equal or superior to that which existed just prior to construction, except for those items whose permanent removal or relocation was required in the Contract Documents or ordered by the City.

1.27 Final Inspection

Final cleaning and repairing shall be so arranged as to be finished upon completion of the construction work.

The City will make their final inspection of the work during the progress of final cleaning and repairing, and any portion of the work finally inspected and accepted by the City shall be kept clean by the Contractor, until the final acceptance of the entire work.

When the Contractor has finally cleaned and repaired the whole or any portion of the work, he/she shall notify the City that he/she is ready for final inspection of the whole or a portion of the work, and the City will thereupon inspect the work. If the work is not found satisfactory, the City will order further cleaning, repairs, or replacement.

When such further cleaning or repairing is completed, the City, upon further notice, will again inspect the work. The "Final Payment" will not be processed until the Contractor has complied with the requirements set forth, and the City has made their final inspection of the entire work and is satisfied that the entire work is properly and satisfactorily constructed in accordance with the requirements of the Contract Documents.

1.28 Project Close Out

As construction of the project enters the final stages of completion, the Contractor shall, in concert with accomplishing the requirements set forth in the Contract Documents, attend to or have already completed the following items as they apply to the Contract.

- A. Required testing of project components.
- B. Correcting or replacing defective work, including completion of items previously overlooked or work which remains incomplete, all as evidenced by the City's "Punch" Lists.
- C. Notify other Contractors of completion of work such that connections and/or coordination between different projects can be made.
- D. Attend to any other items listed herein or brought to the Contractor's attention by the City.

Before the Certificate of Substantial Completion is issued, the Contractor shall submit to the City certain records, certifications, etc., which are specified elsewhere in the Contract Documents. Missing, incomplete, or unacceptable items, as determined by the City, shall constitute grounds for withholding Final Payment to the Contractor. A partial list of such items appears below, but it shall be the Contractor's responsibility to submit any other items which are required in the Contract Documents:

- A. Test results of project components.
- B. Any special guarantees or bonds (Submit to City).
- C. Certification of equipment or materials in compliance with Contract Documents.
- D. Operation and maintenance instructions or manuals for each item of equipment.
- E. One set of neatly marked-up record drawings showing as-built changes and additions to the work under the Contract.

The Contractor's attention is directed to the fact that required certifications and information under Items C, and D above, must actually be submitted earlier in accordance with other sections of the Specification.

1.29 Blasting and Explosives

When blasting is utilized at the site of work, the Contractor shall take all precautions and provide all protective measures necessary to prevent damage to property and structures or injury to persons. Prior to blasting, the Contractor shall secure all permits required by law for blasting operations and shall provide any additional hazard insurance required by the City. The Contractor shall have a fully qualified and experienced blasting foreman in charge of all blasting operations. The Contractor shall undertake the

complete drilling and blasting operations, including handling and storing of explosives, in accordance with Federal, State and Local laws and regulations in conformance with the recommendations and practices of the Institute of Makers of Explosives. **NO BLASTING SHALL COMMENCE WITHOUT PRIOR NOTIFICATION BEING GIVEN TO THE ENGINEER'S REPRESENTATIVE, POLICE AND FIRE DEPARTMENTS.**

Blasting shall be covered or otherwise satisfactorily confined. Contractor shall be responsible for and shall bear the expense of any damage of whatever nature caused by blasting or accidental explosions.

1.30 Additional Definitions

Certain Specification Sections refer to Divisions of Contract Specifications. Sections are each individually numbered portions of the Specifications (numeric) such as 8, 10, etc. The term Section is used as a convenience term meaning all Subsections within a numerical grouping. Section 1, would thus include Subsections 1.00 and 1.02. Section 12 would include Subsections 12.00 or ...08, etc.

1.31 Construction Video

The Contractor is required to video tape the entire project route. The video should clearly identify existing site conditions prior to construction. The Contractor shall present one original DVD and digital copy of the video tape to the City prior to construction.

1.32 Ultimate Disposition of Claims by One Contractor Arising From Alleged Damage by Another Contractor

The Contractor in signing his/her Contract hereby agrees that, in the event that another Contractor working on this Project makes a claim against the City for money damages for loss of time or for other reasons, which conditions are alleged to have been caused or occasioned by the method of operation or lack of progress of the Contractor first above, and in the event that such allegations are substantiated in the opinion of the City, the City may assess in turn such money damages and withhold from progress payment against the offending Contractor first above, in addition to such other damages to which it may be entitled under Section 1, and the General Conditions of the Contract Documents.

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SECTION 2 - SURVEYS AND LAYOUT

2.00 General

All work under this Contract shall be constructed in accordance with the lines and grades shown on the Contract Drawings or as directed by the City. The Contractor shall be responsible for all the field horizontal layout and vertical control of the pipeline(s) to be constructed under this Contract including connection to new and existing facilities and other items necessary for completion of the Contract.

2.01 Information Provided to the Contractor

- A. The City will furnish the Contractor a dimensioned plan (Contract Drawings) showing the location of the proposed pipeline(s) and appurtenances to be constructed under this Contract. In some instances, the control points will be referenced and dimensioned with respect to existing landmarks. The locations of the new facilities are based upon an actual field survey and it is possible that some of the original control points are in place although no expressed or implied warranty is given as to the presence or correctness of any of these points. The Contractor shall be responsible for all ground control.
- B. All elevations refer to the mean sea level datum as established by U.S. Geological Survey.
- C. Elevation of existing ground, structures, and appurtenances are believed to be reasonably correct but are not guaranteed to be absolute and therefore are presented only as an approximation. Any error or apparent discrepancy in the data shown or omissions of data required for accurately accomplishing the stake-out survey shall be referred immediately to the City for interpretation or correctness.

2.02 Contractor's Layout Work

The Contractor shall furnish all personnel, materials, and equipment necessary for the layout work required for work under this Contract.

The Contractor shall be solely responsible for all locations, dimensions, and levels, and shall field verify all elevations and dimensions. No data other than the information contained in the written orders of the City shall justify departure from the Contract Documents.

The Contractor's layout work shall be done by a competent person capable of interpreting the survey data furnished and control points established on the ground for the purpose of laying out his/her work both horizontally and vertically.

Contractor shall establish all base lines for the location of the principal component parts of the work. Based upon the information provided by the Contract Drawings, the Contractor shall develop and make all detailed surveys necessary for construction including stakes for all working points, lines, and elevations.

Contractor shall have the responsibility to carefully preserve the bench marks, reference points and stakes; and in the case of destruction thereof by the Contractor or

resulting from his/her negligence, the Contractor shall be charged with the expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such bench marks, reference points, and stakes.

Existing or new control points, property markers, and monuments that will be or are destroyed during the normal causes of construction shall be reestablished by the Contractor; and all reference ties recorded therefore shall be furnished to the City. All computations necessary to establish the exact position of the work shall be made and preserved by the Contractor.

The Contractor shall exercise special care of pipe alignment where future connections are indicated to insure that future connections can be made without major alterations and realignments.

At the completion of the work, the Contractor shall furnish Record Drawings indicating the final location of all structures, piping, etc. The Record Drawings shall also show the size and elevation of all piping, finished grades, and elevation of all structures.

2.03 Checking by the Engineer

The Engineer may check all or any portion of the layout work, at any time during construction. The Contractor shall afford all necessary assistance to the City in carrying out such checks. Any necessary corrections to the work shall be immediately made by the Contractor. Such checking by the Engineer shall not relieve the Contractor of any responsibilities for the accuracy or completeness of the work.

* * * *

SECTION 4 - SITE PREPARATION

4.00 General

The Contractor shall be responsible for all site preparation necessary for the work shown on the Contract Drawings and specified herein. This includes, but is not limited to the proper removal and storage of topsoil, the proper removal and disposal of all spoil and refuse materials, and the removal and reinstallation of any items such as driveways, culverts, storm drains, paved ditches, signs, pavements, walks, fences, mailboxes, etc. as may be necessary for carrying out the work. The restoration of surfaces shall be done in accordance with the requirements of **SURFACE RESTORATION** section.

The removal of signs shall be done in accordance with and subject to the approval of the North Carolina Department of Transportation. Temporary signs shall be furnished and installed by the Contractor as necessary and as required. All Regulatory Signs, shall be replaced immediately following backfilling or at the end of each day, whichever occurs first.

Where removal of existing structures (such as driveway culverts, storm drains, etc, and/or utilities) is required in order to carry out the work, the Contractor shall be responsible for re-installing these items to their original condition and functional capacity.

The Contractor shall provide adequate means to prevent any sediment from entering any storm drains (curb inlet filter box), ditches, streams, or bodies of water downstream of any area disturbed by construction. Excavated materials shall be placed upstream of any trench or other excavation to prevent sedimentation of off-site areas. In areas where a natural buffer area exists between the work area and the closest stream or water course, this area shall not be disturbed. All streets and driveways shall be scraped and swept as necessary (minimum daily) to prevent the accumulation of dirt and debris. The Contractor shall apply a pavement protector (such as screenings, sand, etc.) prior to depositing soil, etc. on the pavement surfaces. If deemed necessary by the City, the street shall be flushed using a street flusher.

At the completion of the work at this site each day, all debris and excess construction materials shall be removed by the Contractor, and the site shall be left clean and presentable.

4.01 Clearing and Grubbing

The Contractor shall clear and grub any proposed permanent easements as shown on the Contract Drawings and specified herein. Unless otherwise noted, the Contractor shall clear and grub all areas within 12.5 feet of the proposed utility line. The City will take into consideration a property owner's request to not remove trees, plants, etc. within the permanent easement area. The Contractor shall notify the City of any clearing and grubbing that is required outside the proposed easement, and shall obtain the City's approval of the proposed limits of the areas to be cleared and grubbed prior to starting any work. The Contractor shall also clear and grub such portions of the highway or street rights-of-way required for placement of the utility line.

Clearing shall consist of cutting, removal, and satisfactory disposal of all trees, fallen timber, brush, rubbish, sanitary landfill material, and other perishable and objectionable material within the designated areas.

Grubbing shall consist of the removal and disposal of all stumps, roots, logs, sticks, and other perishable materials to a depth of at least 6 inches below ground surface. Topsoil shall be stripped from the work area and kept in piles until needed for final grading.

In temporary construction easement locations, only those trees, shrubs, etc. shall be removed which are in actual interference with excavation or grading work under this Contract, and removal shall be subject to approval by the City. However, the City reserves the right to order additional trees and shrubs, etc. removed at no additional cost to the City, if such, in their opinion, are too close to the work to be maintained or have become damaged due to the Contractor's operations.

4.02 Disposal of Cleared and Grubbed Material

All trees, stumps, roots, bushes, refuse, etc. shall be removed from the site and properly disposed of by the Contractor. **OPEN BURNING WILL NOT BE PERMITTED, UNLESS A PERMIT IS OBTAINED FROM THE CITY FIRE CHIEF OR FIRE MARSHALL (IF APPROPRIATE). THE CONTRACTOR WILL ADVISE THE CITY IF A PERMIT IS APPROVED. BURYING OF CLEARED MATERIAL ON SITE WILL NOT BE PERMITTED.** Disposal areas (off-site) are subject to approval by the City.

* * * *

SECTION 9 - CONCRETE

9.00 General

Class A concrete shall be used for structures requiring relatively precise form work and accurate placement for reinforcing steel.

Class B concrete shall be used for pipe encasement, concrete arches, and thrust blocks.

Reinforcing steel incorporated with Class A or Class B concrete shall conform to ASTM A615, grade 60.

9.01 Concrete Materials

Cement shall conform to standard specifications of ASTM C150 for Type 1 Portland Cement. Fine aggregate shall be well graded natural sand and coarse aggregate shall be crushed stone or gravel. They shall conform to standard specifications of ASTM C33 for concrete aggregates. Coarse aggregate shall be of designated size 1-inch to No. 4 in accordance with the gradation for that range of sizes in the ASTM specification referred to above. The Contractor shall furnish for approval standard samples of one cubic foot each of fine and coarse aggregates. For the purpose of this work, only water from a potable water system or another approved source may be used.

9.02 Ready-Mixed Concrete

Ready-Mixed Concrete shall be used on the work provided it complies fully with the requirements of these Specifications, and the current ASTM Specifications for Ready-Mixed Concrete C94. The concrete shall be mixed in an approved truck drum mixer. The truck mixer shall be equipped with a tank for carrying the mixing water, and the water shall be added to the tank at the proportioning plant. Water added to the mixer shall be measured to the nearest gallon by use of a water meter. The mixing equipment shall be capable of combining the aggregate, cement and water within the specified time in a thoroughly mixed uniform mass, and be capable of discharging the mixture without segregation of ingredients. **HAND MIXING OF CONCRETE WILL NOT BE PERMITTED.**

Any truck drum mixers suspected of not producing uniform mixes shall be tested for uniformity as outlined in ASTM C94. Slump variation in excess of 1-inch or air content variation in excess of 1% shall be cause for rejection of the truck drum mixer for use on the project. Trucks so rejected may be retested at less than rated capacity and if found acceptable may be utilized on the project at the reduced capacity.

A written delivery slip or ticket, prepared and signed by the licensed weighmaster, shall be made out at the proportioning plant for each truck drum mixer. Any truck drum mixer delivering concrete to the job site, which is not accompanied by a delivery slip, will be rejected and such truck shall immediately depart from the job site.

Retempering of concrete by adding water to a partially unloaded truck will not be permitted. The addition of water for minor slump adjustment, before any concrete is discharged shall be controlled by the City.

9.03 Proportioning

The following specifications shall apply:

	<u>Class A Concrete</u>	<u>Class B Concrete</u>
Minimum cement content, sacks per cu. yd. with rounded course aggregate	6.0	5.0
Minimum cement content, sacks per cu. yd. with angular course aggregate	6.5	5.5
Maximum water-cement ratio gal. per sack	5.67	6.8
Slump range	2" to 4"	2" to 4"
Minimum strength - 28 days psi.	3,500	2,500

It shall be noted that the above specifications are minimum rather than design strengths. The mix shall be approximately 1 part cement, 2 parts sand, and 2 parts coarse aggregate for Class A concrete and approximately 1-3-4, respectively, for Class B concrete by weight, with adjustments made to give the best workability while maintaining the specified water-cement ratios. If necessary to obtain proper workability, cement in addition to the minimum specified sacks per cubic yard of concrete shall be added. The Contractor shall submit certifications from the Ready-Mixed Concrete supplier certifying that the proposed mix to be supplied has been proven to satisfy the above specifications. Such certifications shall be subject to the approval of the City and, in lieu of the same, the Contractor shall have test cylinders made of the concrete mix he/she proposes to use and submit strength test certificates of an approved laboratory prior to placing concrete. Class A concrete shall be used, unless stated herein or shown otherwise on the drawings.

9.04 Form work

Forms for concrete shall be sound, true and tight, and sufficiently rigid to prevent displacement and sagging between supports. For Class A concrete, no form ties shall be used that will leave metal within 1-inch of the finished surface of the concrete, and lumber used for exposed faces shall be of seasoned stock which has been coated with an approved lubricant.

Forms shall be left in place until the concrete has set sufficiently to permit their removal without danger to the structure. No forms shall be removed in less than seven (7) days or until permission to do so has been given by the City. For Class B concrete, where the concrete is not required to be poured against undisturbed material, it shall be contained by sand bags, stones, brick, or lumber to provide the required shape.

9.05 Placing Concrete

Concrete shall not be placed until the forms have been cleaned, and oiled, nor until all hangers, pipe, conduits, bolts, anchors, wire, and any other fixtures required to be embedded therein have been placed and anchored by the Contractor, nor until all loose debris in the bottoms of forms or in keyways have been removed, nor until all debris, water, snow, ice, and foreign matter have been removed from the space to be occupied by the concrete. The Contractor shall notify the City in advance of placement, allowing sufficient time for a concurrent inspection and for any corrective measures which may be required.

Concrete shall be conveyed as rapidly as practicable to the point of deposit by methods which prevent the separation or loss of the ingredients. It shall be so deposited that rehandling will be unnecessary. Where concrete is conveyed to position by chutes, a practically continuous flow in the chute shall be maintained. The angle and discharge arrangement of the chute shall be such as to prevent segregation of the concrete ingredients. The delivery end of the chute shall be as close as possible to the point of deposit and in no case shall the free pour from the delivery end of the chute exceed five (5) feet.

Special care must be exercised to prevent splashing of forms or reinforcement with concrete, and any such splashes or accumulations of hardened or partially hardened concrete on the forms or reinforcement above the general level of the concrete already in place must be removed before the work proceeds. Concrete shall be placed in such a way as to prevent any segregation.

Concrete shall be spaded and rodded to thoroughly embed all reinforcement and fixtures. When forms are removed, surfaces shall be even and dense, free from aggregate pockets or honeycomb areas. Special care shall be taken to secure dense concrete around all inserts. Pockets or honeycombs shall be chipped back to solid concrete, as directed by the City, and grouted per "Type I" concrete finish. At the City's option an approved bonding agent may be required.

9.06 Nonshrink Grout

Nonshrink grout shall be Master Builders "Embeco 636", U.S. Grout Corp. "Five Star Grout", or equal. Grout shall be nonstaining and shall be mixed, placed and cured in accordance with the manufacturer's recommendations. Compressive strength of grout shall be 4,000 PSI minimum.

9.07 Admixtures

Under no circumstances will any additive or chemical be permitted for the purpose of preventing freezing. In no case will calcium chloride be used in concrete.

9.08 Concrete Work in Hot Weather

When air temperatures exceed 85 degrees F, or when extremely dry conditions exist even at lower temperatures, particularly if accompanied by high winds, the Contractor and his/her concrete supplier shall exercise special and precautionary measures in preparing, delivering, placing, finishing, curing and protecting the concrete mix. The Contractor shall consult with the City regarding such measures prior to each day's pouring operation, and the City reserves the right to modify the proposed measures consistent with the requirements of this Section of the Specifications. All necessary materials and equipment shall be on hand and in position prior to each pouring operation.

The temperature of the concrete mix when placed shall not exceed 90 degrees F. Temperature of mixing water and aggregates shall be carefully controlled and monitored at the supplier's plant, with haul distance to the job site being taken into account.

All concrete work in hot weather shall be performed in accordance with ACI 305 "Recommended Practice in Hot Weather Concreting" unless modified herein.

9.09 Concrete Work in Cold Weather

The City may prohibit the placing of concrete at any time when atmospheric conditions are unsuitable. If permitted, concrete delivered when the surrounding air temperature is 40 degrees F or lower, shall have a minimum temperature, as placed, of 55 degrees F and a maximum temperature, as placed, of 75 degrees F. All aggregate and water shall be preheated, and all reinforcement, forms, and ground with which the concrete is to come in contact shall be defrosted by an approved method. Concrete shall not be placed on frozen ground. Delivery schedules shall be carefully planned in advance so that concrete is placed as soon as it arrives at the pouring location, allowance being made for mixing time as specified elsewhere.

9.10 Watertight Structures

Portions of structures below finished grade shall be watertight from any infiltrating groundwater. The Contractor shall prosecute the required work in such a manner as to achieve this result. Any leaks or evidence of infiltrating groundwater, which appear during construction of the project, shall be repaired by a method approved by the City.

9.11 Repair of Unacceptable Concrete

Areas of concrete in which cracking, spalling, or other signs of deterioration develop during initial curing or the one-year maintenance period shall be removed and replaced, or repaired in accordance with this Subsection as directed by the City. Submit manufacturer's product data sheets and recommended application procedures to the City for approval, for repairs made in accordance with this clause.

* * * *

SECTION 10 - ADDITIONAL EXCAVATION AND CRUSHED STONE BEDDING

10.00 General

Under this Section, the Contractor shall do all additional excavation specifically requested by the City and shall furnish all labor, equipment, and materials for the placement and compaction of additional crushed stone bedding as herein specified or as directed by the City.

Payment shall be made under this Section only for stone bedding used to replace unsatisfactory earth soils removed as additional excavation or for stone bedding requested by the City and not shown on the Contract Drawings or specified under other sections.

Additional excavation in any trench or other excavation is defined as excavation to a depth greater than the depths shown on the Contract Drawings.

This Section is intended to provide for the removal of unsatisfactory subgrade materials for pipe and manholes. Backfill for additional excavation shall be crushed stone bedding as described herein.

Any and all work done under this Section shall be at the direction of the City.

10.01 Excavation Work

The Contractor shall do such additional excavating work as the City shall direct. Such excavations shall be subject to the same conditions and requirements as specified for trench excavation. Excavation work shall include soil (dirt) only. In the event the Contractor over-excavates (due to blasting rock or any other reason not required by the contract documents), the Contractor shall install crushed stone bedding (at the Contractor's expense) to bring the bottom of the trench up to the required grade.

10.02 Bedding Material and Placement

Bedding material shall be No. 57 stone meeting the requirements of the North Carolina Department of Transportation and furnished from an approved source.

Stone bedding shall be spread in layers and shall be compacted in place to the proper grade to provide a solid bed for the pipe or structures for the full width of the excavation.

10.03 Measurement and Payment

The quantity to be paid for under this Section shall be the volume of materials excavated in accordance with the City's directions as measured in place by the City. No payment will be made for excavation beyond the Maximum Trench Excavation Limits, as shown on the Contract Drawings. Any excavation not authorized by the City will be at the Contractor's expense.

The quantity of granular bedding and granular fill to be paid for under this Section shall be the measured quantity in place within the limits shown, specified or ordered by the City. The stone bedding specified under other sections will not be included for payment under this Section.

No payment will be made for stone bedding when soil or rock excavation is carried deeper than the required trench depths or outside the specified trench limits, except where the Contractor is ordered by the City to excavate beyond the specified depth and trench limits.

For completing the work specified under this Section, the Contractor shall be paid unit prices as detailed in the Contract.

* * * *

SECTION 12 - SURFACE RESTORATION

12.00 General

The Contractor shall furnish all labor, equipment and materials required to perform and complete the restoration of all surfaces in the excavation and work area. The Contractor shall remove all surface materials of whatever nature and shall properly store, guard, and preserve as much material as may be required for restoration of disturbed areas. Topsoil or loam, where encountered, shall be piled separately from other excavated materials to prevent mixing and shall be backfilled to a compacted depth equal to the original condition.

Depressions that occur along the line of excavation, due to the settlement, shall be brought to grade, restoring the surface to its original condition. Where trenches cross or disturb improved or unimproved driveways the ground surface shall be returned to its original condition by the Contractor at the Contractor's own expense.

12.01 Final Grading and Finished Grade Adjustments

All areas disturbed during the course of the work shall be brought to the original grade of the adjacent ground surfaces. The surface shall be graded smoothly with all stones and debris removed. Where called for in the Contract Drawings, the Contractor shall provide all labor and materials necessary to perform any adjustments in grade needed to obtain minimum cover.

Excess fill material from the project excavation may be used for grade adjustments provided that it is free of rocks (over 2-inches in diameter), roots or other objectional materials. The fill material shall be spread evenly and compacted to 85 percent Standard Proctor density in lifts not to exceed one (1) foot in depth. A minimum of 6-inches of good quality topsoil shall be provided for all areas that require surface restoration. Surface restoration shall be as specified under this Section.

If in the event that sufficient fill material or topsoil is not available, the Contractor shall supply all such material at his/her own expense.

12.02 Maintenance and Restoration of Unpaved Surfaces

All grassed and natural areas (including shoulders of roads) disturbed during the course of the work shall be reseeded, unless otherwise indicated on the plans. The topsoil shall be replaced and raked to an even grade with all stones, and debris removed.

Water will be furnished to the Contractor by the City from existing facilities as directed by the City, at prevailing city rates. The Contractor shall furnish all hoses and connections necessary to complete the landscaping work.

The Contractor shall install stone (match existing) around mail boxes removed during the construction. The stone shall be installed immediately after the mail box has been reinstalled (to prevent ruts and reduce the amount of mud being tracked onto the pavement).

All grass, fertilizer and mulch applications shall be furnished and placed in accordance with the following table (match existing grass as appropriate):

Fall Permanent Seeding

August 15 - November 1

Lime	2 tons/ac
5-10-10 Fertilizer	1000 lbs./ac
0-20-0	500 lbs./ac
Unscarified Sericea Lespedeza	60 lbs./ac
Ky-31 Fescue	30 lbs./ac
Rye Grain	25 lbs./ac
Straw Mulch	2 tons/ac

Winter Temporary Cover

November 1 - February 28

Lime	2 tons/ac
10-10-10 Fertilizer	700 lbs./ac
Oats	50 lbs./ac
Rye Grain	20 lbs./ac
Straw Mulch	2 tons/ac

Spring Permanent Seeding

March 1 - April 30

Lime	2 tons/ac
5-10-10 Fertilizer	1000 lbs./ac
0-20-0	500 lbs./ac
Scarified Sericea Lespedeza	50 lbs./ac
KY-31 Fescue	30 lbs./ac
Browntop Millet	20 lbs./ac
Straw Mulch	2 tons/ac

Late Spring Permanent Seeding

March 15 - June 30

Lime	2 tons/ac
10-10-10 Fertilizer	1000 lbs./ac
0-20-0	500 lbs./ac
Scarified Sericea Lespedeza	40 lbs./ac
Common Bermuda Grass (hulled)	8 lbs./ac
Straw Mulch	2 tons/ac

Summer Temporary Cover

June - August 15

Lime	2 tons/ac
10-10-10 Fertilizer	700 lbs./ac
Browntop Millet	40 lbs./ac
Straw Mulch	2 tons/ac

Where temporary cover is placed, the Contractor shall be responsible for subsequent placement of permanent seeding based on the time schedule stipulated in the above table.

After seeding, the area shall be rolled and mulched with fine grain straw at the application rate specified. An asphaltic tack coat, or an approved equal treatment shall be used to hold the mulch in place.

Seeded areas that fail to establish a vigorous stand of grass adequate to restrain accelerated erosion shall be reseeded at the Contractor's expense. The Contractor shall not be eligible for final payment until a vigorous stand of grass has been established for all disturbed areas.

Unpaved Roads and Driveways

After construction, the Contractor shall restore the stone base (match existing) to its original condition. Additional stone shall be provided by the Contractor at his/her expense if a suitable surface cannot be established.

Ditch and Swale Erosion Protection

Erosion mats shall be used in ditches and swales where the slope exceeds 5% or on slopes greater than 4:1 and where shown on the drawings.

The blanket shall consist of a machine produced mat of curled wood excelsior of 80% 6-inch or longer fiber length, with consistent thickness and the fiber evenly distributed over the entire area of the blanket. The top side of each blanket shall be covered with a 3-inch x 1-inch biodegradable extruded plastic net. The blanket shall be smolder resistant without the use of chemical additives. Blankets shall be Type 11, 48-inch width x 180 feet long, weighing 65 pounds (plus or minus) per roll, as manufactured by Amoco, American Excelsior Company, or equal.

Blanket staples shall be made of wire, .091-inch in diameter or greater, "U" shaped with legs 6-inches in length and a 1-inch crown.

The area to be covered shall be properly graded and seeded before the blanket is applied. Unroll blanket so that the netting is on top and the fibers are in contact with the soil. Install in direction of water flow, butted snugly at ends. Staple ends and sides one (1) row alternately spaced down the center. The staples shall be driven vertically into the ground.

12.03 Restoration of Paved Surfaces

Where trenches cross or disturb paved streets, driveways, parking areas, sidewalks, curbs, etc., the Contractor shall remove where necessary and shall replace all portions of pavements, curbs, sidewalks, driveways, and traffic markings, etc. destroyed or damaged by his/her operation. **Where the Contractor installs a utility line/service (sewer, water, drainage, etc.) under a curb/gutter, a standard section (10' minimum) of the curb/gutter shall be removed and replaced by the Contractor.** The Contractor shall take all precautions (including screenings, sand, etc.) to protect the existing pavement from damage by his/her equipment during construction. It is the intent of these specifications that the Contractor leave all paved surfaces affected by the construction work equal to or better than the original condition and that all work be done in conformance with approved practice.

The City shall be advised, when concrete sub-base is encountered under existing pavement, it shall be replaced with the flexible base pavement as described herein or as shown on the pavement repair detail.

The Contractor shall not begin final restoration work until the subgrade has been inspected and approved by the agency having authority over the rights-of-way. All pavement and road restoration within the State or City, or privately owned rights-of-way shall be done as specified herein and as detailed on the Contract Drawings, to the requirements of the North Carolina Department of Transportation Standard Specification, January, 1984 (or latest edition), and to the approval of the N.C. Department of Transportation and the City.

Depressions that occur along the line of the excavation, due to settlement, shall be brought to grade, restoring the base course to its original condition, prior to final pavement restoration.

Final flexible pavement restoration shall be deferred at least two (2) weeks after the trench area has been backfilled and exposed to traffic. However, final pavement restoration shall be completed not later than six (6) weeks after the trench area has been backfilled and exposed to traffic, weather permitting. If the Contractor must be continually reminded to keep trench areas topped off with stone, the City will require the Contractor to temporarily patch the area/areas (cold patch). **The Contractor shall temporarily patch high traffic areas (binder or cold patch) immediately after the backfilling operation.**

The existing pavement shall be cut back with a pavement saw and squared off in a neat and workmanlike manner as directed by the City. In general, the base for bituminous pavements shall extend at least one (1) foot on undisturbed subgrade.

The Contractor shall maintain all paved surfaces until accepted. The paved areas will not be accepted until after the Contractor has completed all phases of the work, including all necessary transportation, hauling, and severe usage of the paved areas. The City will be the sole judge in this matter.

Minimum pavement specifications for asphalt surfaces are to be as indicated in the contract drawings. Minimum pavement specifications for concrete surfaces are as follows:

Portland Cement Concrete Pavements

Driveways - The existing concrete shall be cut-back with a pavement saw to the next joint beyond the Trench Excavation Limits and shall be replaced to the full length (as measured parallel to the roadway). Existing concrete driveways that do not have existing joints shall be cut-back (saw cut) to the Trench Excavation Limit (minimum) or to a width sufficient to remove concrete damaged by construction or equipment on the property line side of the trench and to the edge of the highway pavement on the highway side of the trench and to the full length (as measured parallel to the highway). No patching shall be allowed.

The existing concrete shall be cut-back and squared off in a neat and workmanlike manner as directed by the City. Concrete and work shall be as follows:

Concrete - Class A

Thickness - 6 inches

Finish - As directed(to match adjacent concrete)

Reinforcement* - Steel mesh shall be 6 x 6 - W2.0 x W2.0 WWF (6 x 6 - 8 x 8 WWF)

Placement of Reinforcement - As directed
(typically 3 inches from top of slab)

Joint Material - Bituminous premolded filler type; ½-inch thick for expansion joints against all structures surrounded by driveway. One-inch thick where concrete abuts against existing pavements or structures. Match existing material as appropriate.

Sidewalks - Sidewalks shall be replaced to the next joint beyond the Trench Excavation Limits and to the full width of the sidewalk. Concrete and work shall be as follows:

Concrete - Class A

Thickness - 5 inches

Finish - As directed (to match adjacent concrete)

Reinforcement* - Steel mesh shall be 6 x 6 - W2.0 x W2.0 WWF (6 x 6 - 8 x 8 WWF)

Joint Material - Bituminous premolded filler type; ½-inch thick for expansion joints against all structures surrounded by walk. One-inch thick where walks abut against other pavements or structures. Match existing material as appropriate.

Expansion joint spacing - Approximately 20 feet or as directed by the City.

Curbs - Curbs shall be rebuilt to original lines, grade, cross-section and finish. Any curbing that has settled or shifted shall be relaid.

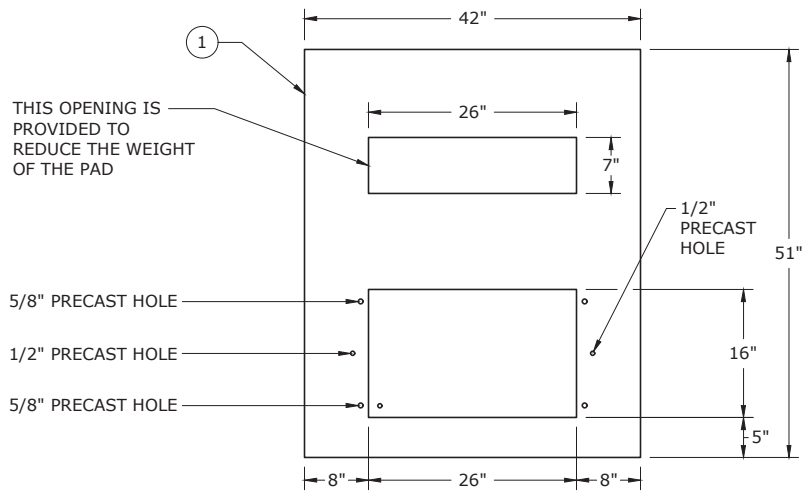
Concrete - Class A

Joints - As directed

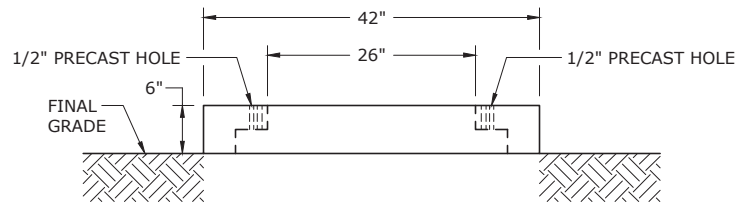
Expansion - ½-inch bituminous expansion joint material, matching cross-section, at ends of replacement sections

*Reinforcement required even when original had none.

* * * *



PLAN VIEW OF PAD



FRONT VIEW OF PAD

BILL OF MATERIALS					
BUBBLE NUMBER	COMPATIBLE UNIT	CU QTY	ITEM NUMBER	ITEM QTY/ CU	DESCRIPTION
1	STRUCT-PAD-TF-CTE-MD-1P-C	1	500987	1	PAD, CONCRETE, TRANSFORMER, 42" WD X 51" LG X 6" THK

NOTES:

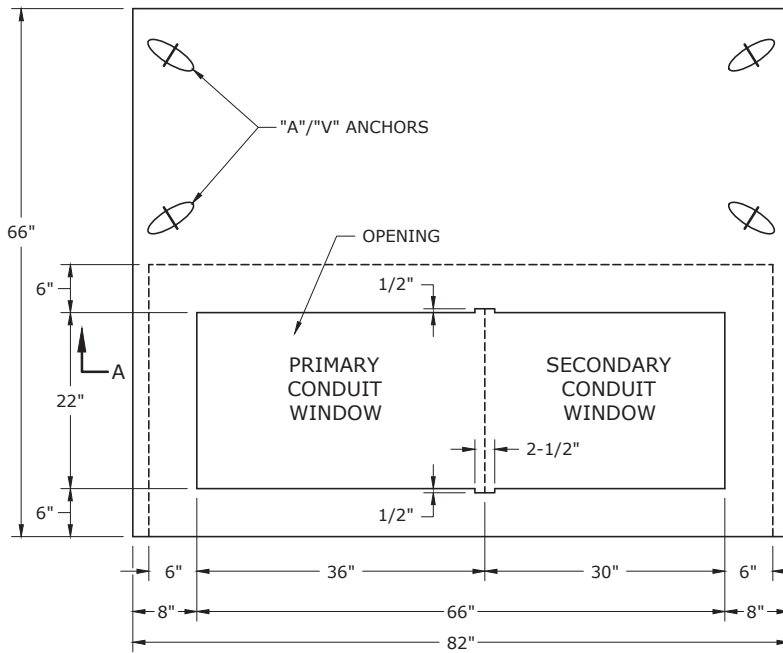
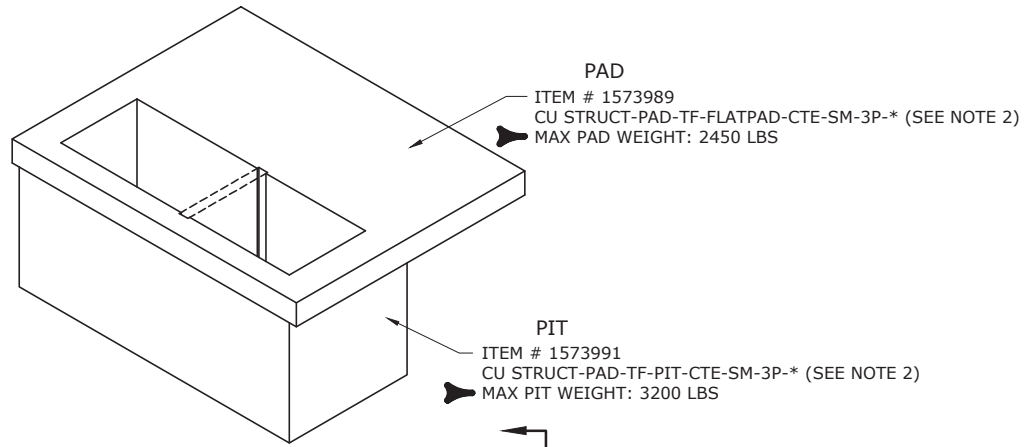
- SEE DWG. 24.01-102 TO DETERMINE IF CURBING AND ABSORPTION BED IS REQUIRED.
- PROTECTIVE POLES ARE REQUIRED WHEN TRANSFORMERS ARE EXPOSED TO VEHICLE TRAFFIC. SEE DWG. 36.01-105 FOR PROTECTIVE POLE DETAILS.
- SEE SECTION 36 FOR ALL TRANSFORMER CLEARANCES.
- INSTALL PAD ON TOP OF FINAL GRADE.
- THE SURFACE OF THE PAD MUST BE LEVEL WITHIN 1" ACROSS THE PAD IN ALL DIRECTIONS.
- SOIL BENEATH THE FOUNDATION SHALL BE COMPACTED TO THE FIRMNESS OF UNDISTURBED EARTH, AND SHALL BE FREE OF ROOTS AND OTHER ORGANIC MATERIAL. BACKFILL AND TAMP THE SOIL AROUND THE PAD SUFFICIENTLY TO PREVENT WASHING.
- USE FIRE ANT CONTROL IN PAD OPENINGS.
- FINAL GRADE SHOULD SLOPE AWAY FROM PAD TO ALLOW PROPER WATER RUN-OFF. IF PAD LOCATION IS CUT INTO A HILL, ENSURE MINIMUM THREE (3) FEET OF SPACE IS AVAILABLE BETWEEN PAD AND RETAINING WALLS OR BOTTOM OF THE HILL SLOPE.
- THE CENTERLINE OF THE PAD SHOULD BE PLACED ON THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED.
- SECURE TRANSFORMER TO FOUNDATION WITH HOLD DOWN CLAMPS SUPPLIED BY TRANSFORMER MANUFACTURER. SEE SECTION 27 FOR MOUNTING DETAILS.
- FOR CABLE AND CONDUIT ENTRANCE ZONES, SEE DWG. 27.02-108.
- CUT AND CAP ALL CONDUITS FLUSH WITH THE TOP OF THE PAD.
- OTHER UTILITIES SHALL NOT BE INSTALLED UNDER TRANSFORMER PAD. SEE SECTION 36 FOR MINIMUM CABLE CLEARANCES.
- SEE SECTION 27 OF THIS MANUAL FOR GROUND ROD AND GROUND BUS DETAILS.



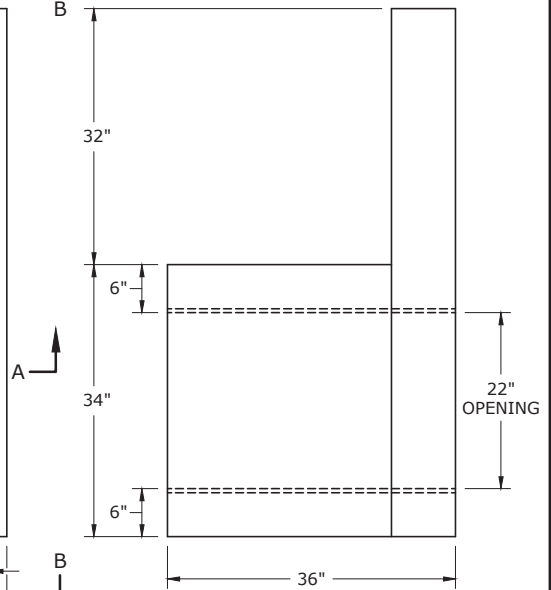
3				
2				
1				
0	1/31/19	GORLEY	EANES	ADCOCK
REVISED	BY	CHK'D	APPR.	

FLAT PAD FOR SINGLE-PHASE
PAD-MOUNTED TRANSFORMERS
25 - 167 KVA

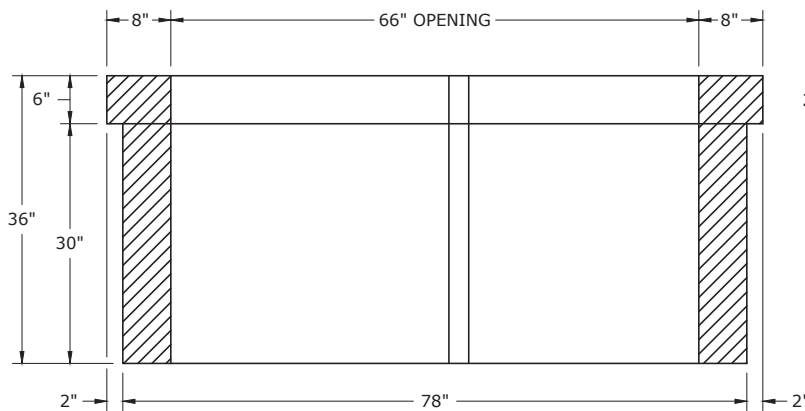
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X			
24.01-110			



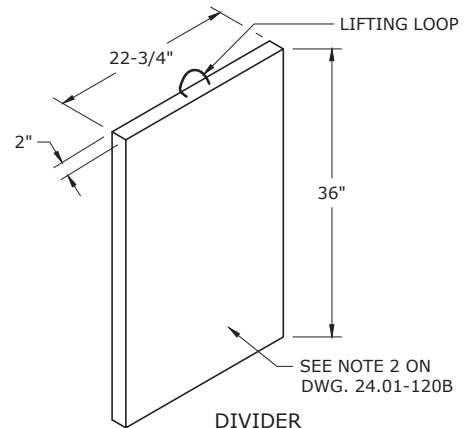
PLAN VIEW



SECTION B-B



SECTION A-A



ITEM # 1573995
CU STRUCT-PAD-TF-DIVIDER-CTE-SM-3P-*
(SEE NOTE 2)
MAX DIVIDER WEIGHT: 175 LBS

NOTES:

1. SEE DWG. 24.01-120B FOR NOTES.
2. THE LAST LETTER OF THE COMPATIBLE UNIT HAS BEEN OMITTED. PLEASE ADD THE FOLLOWING LETTER TO THE CU NAME DEPENDING ON YOUR REGION: DEC - C, DEM - M, DEP - P.



3	6/30/20	MORGAN	EANES	GRAHAM
2	8/13/19	MORGAN	EANES	ADCOCK
1	7/8/19	VALENTIN	EANES	ADCOCK
0	1/31/19	GORLEY	EANES	ADCOCK
REVISED	BY	CHK'D	APPR.	

**SMALL PIT PAD FOR THREE-PHASE
PAD-MOUNTED TRANSFORMERS**

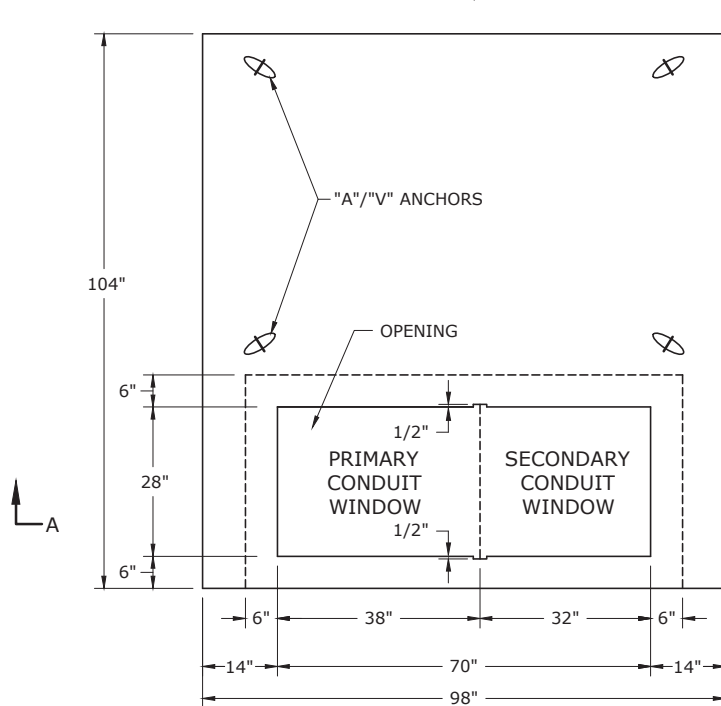
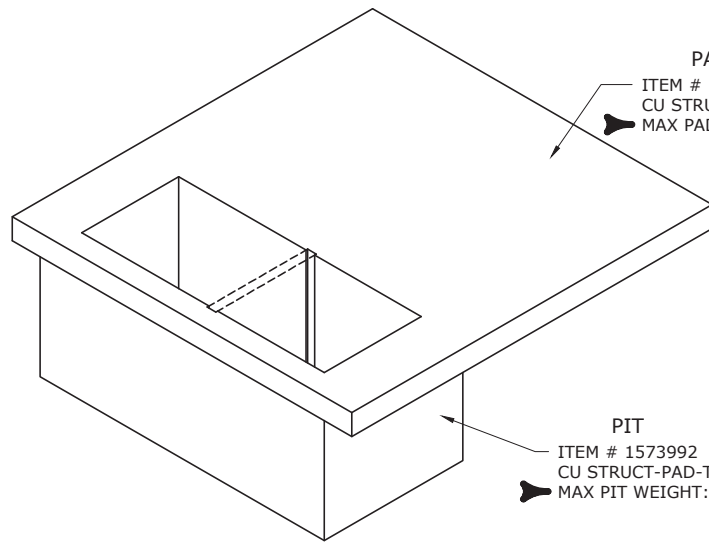
DEC	DEM	DEP	DEF
X	X	X	
24.01-120A			

NOTES:

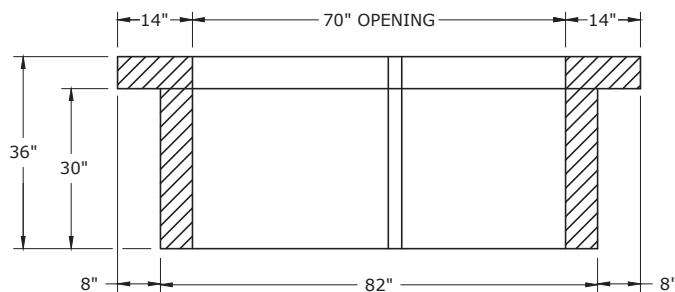
1. THIS STANDARD APPLIES TO DEC, DEM AND THE NON-COASTAL REGIONS OF DEP.
2. MECKLENBURG COUNTY, NC REQUIRES A 2" THICK CONCRETE DIVIDER TO BE INSTALLED BETWEEN THE PRIMARY AND SECONDARY COMPARTMENTS OF THE PAD.
3. THE COMPANY RESERVES THE RIGHT TO REFUSE SERVICE TO NEW INSTALLATIONS THAT DO NOT MEET DUKE ENERGY REQUIREMENTS.
4. REFERENCE DWG. 24.01-102 TO DETERMINE IF CURBING AND ABSORPTION BED IS REQUIRED.
5. PROTECTIVE POLES ARE REQUIRED WHEN TRANSFORMERS ARE EXPOSED TO VEHICLE TRAFFIC. SEE DWG. 36.01-105 FOR PROTECTIVE POLE DETAILS.
6. THERE SHALL BE MINIMUM CLEARANCES OF 10' IN FRONT OF THE TRANSFORMER AND 3' ON ALL OTHER SIDES OF THE TRANSFORMER. SEE DWGS. 36.01-101 AND 36.01-103 FOR MORE DETAILS ON CLEARANCES.
7. TRANSFORMER MUST BE LOCATED IN AN AREA THAT ALLOWS SAFE ACCESS BY DUKE ENERGY CONSTRUCTION AND MAINTENANCE EQUIPMENT IN WET OR DRY WEATHER.
8. CONSIDER FROST ACTION, DRAINAGE, AND LOCAL SOIL CONDITIONS WHEN PREPARING SITE FOR PAD. SOIL UNDERNEATH PADS SHALL BE LEVELED AND COMPACTED. SOIL SHALL ALSO BE FREE OF ROOTS AND OTHER ORGANIC MATERIALS TO PREVENT SETTLING AND EROSION. SOD MAY BE REQUIRED AROUND PAD TO PREVENT SOIL EROSION.
9. FOR DEC AND DEP, USE FIRE ANT CONTROL IN PAD OPENINGS.
10. ALL CONDUITS IN A PIT PAD SHALL BE CUT 6" ABOVE THE GRAVEL BED IN THE PIT.
11. CUSTOMER SHALL INSTALL THE CONDUIT FOR THE PRIMARY CONDUCTORS AS CLOSE TO THE CENTER OF THE PRIMARY AREA AS PRACTICAL. THE SECONDARY CONDUITS SHALL BE INSTALLED TO THE RIGHT INSIDE THE SECONDARY AREA. SEE SERVICE GUIDE FOR PAD INSTALLATION DETAILS AND SPECIFICATIONS.
12. OTHER UTILITIES SHALL NOT BE INSTALLED UNDER TRANSFORMER PAD. SEE SECTION 36 FOR MINIMUM CABLE CLEARANCES.
13. SEE SECTION 27 OF THIS MANUAL FOR GROUND ROD AND GROUND BUS DETAILS.
- 14. FOR SITUATIONS WHERE LOAD GROWTH IS ANTICIPATED SUCH THAT A SMALL THREE-PHASE PAD-MOUNTED TRANSFORMER ($\leq 300\text{KVA}$) WILL NEED TO BE REPLACED BY A LARGE THREE-PHASE PAD-MOUNTED TRANSFORMER ($\geq 500\text{KVA}$), A SMALL PAD (ITEM # 1573989) CAN BE INSTALLED ON A LARGE PIT (ITEM # 1593992) FOR THE PERIOD OF TIME THAT A SMALL TRANSFORMER IS SUFFICIENT. WHEN A TRANSFORMER CHANGE-OUT IS NECESSARY, THE SMALL PAD CAN BE REPLACED WITH A LARGE PAD (ITEM # 1573990) ON TOP OF THE EXISTING LARGE PIT.
- 15. THE WEIGHT OF THE PAD, PIT, AND DIVIDER, SHOWN UNDER THE ITEM NUMBER AND CU, IS INCLUDED FOR REFERENCE WHEN DETERMINING THE LIFTING TOOLS NEEDED. THE WEIGHT SHOWN ON THIS DRAWING REPRESENTS THE HEAVIEST DESIGN AMONG ALL APPROVED SUPPLIERS. THE ACTUAL WEIGHT MAY BE LESS.

								
3					DEC	DEM	DEP	DEF
2	6/30/20	MORGAN	EANES	GRAHAM	X	X	X	
1	7/8/19	VALENTIN	EANES	ADCOCK				
0	1/31/19	GORLEY	EANES	ADCOCK				
REVISED	BY	CHK'D	APPR.		24.01-120B			

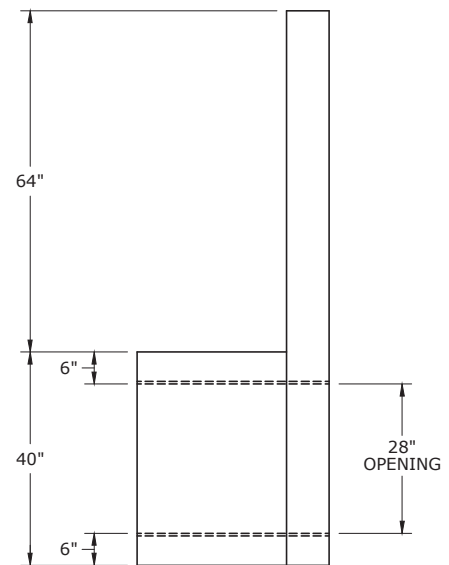
SMALL PIT PAD FOR THREE-PHASE
PAD-MOUNTED TRANSFORMERS



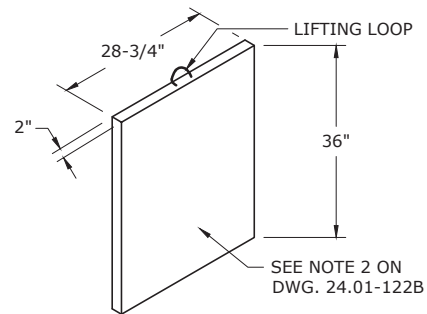
PLAN VIEW



SECTION A-A



SECTION B-B



DIVIDER

ITEM # 1573996
CU STRUCT-PAD-TF-DIVIDER-CTE-LG-3P-*
(SEE NOTE 2)
MAX DIVIDER WEIGHT: 200 LBS

NOTES:

1. SEE DWG. 24.01-122B FOR NOTES.
2. THE LAST LETTER OF THE COMPATIBLE UNIT HAS BEEN OMITTED. PLEASE ADD THE FOLLOWING LETTER TO THE CU NAME DEPENDING ON YOUR REGION: DEC - C, DEM - M, DEP - P.

3	6/30/20	MORGAN	EANES	GRAHAM
2	8/13/19	MORGAN	EANES	ADCOCK
1	7/8/19	VALENTIN	EANES	ADCOCK
0	1/31/19	GORLEY	EANES	ADCOCK
REVISED	BY	CHK'D	APPR.	

LARGE PIT PAD FOR THREE-PHASE
PAD-MOUNTED TRANSFORMERS



DEC	DEM	DEP	DEF
X	X	X	

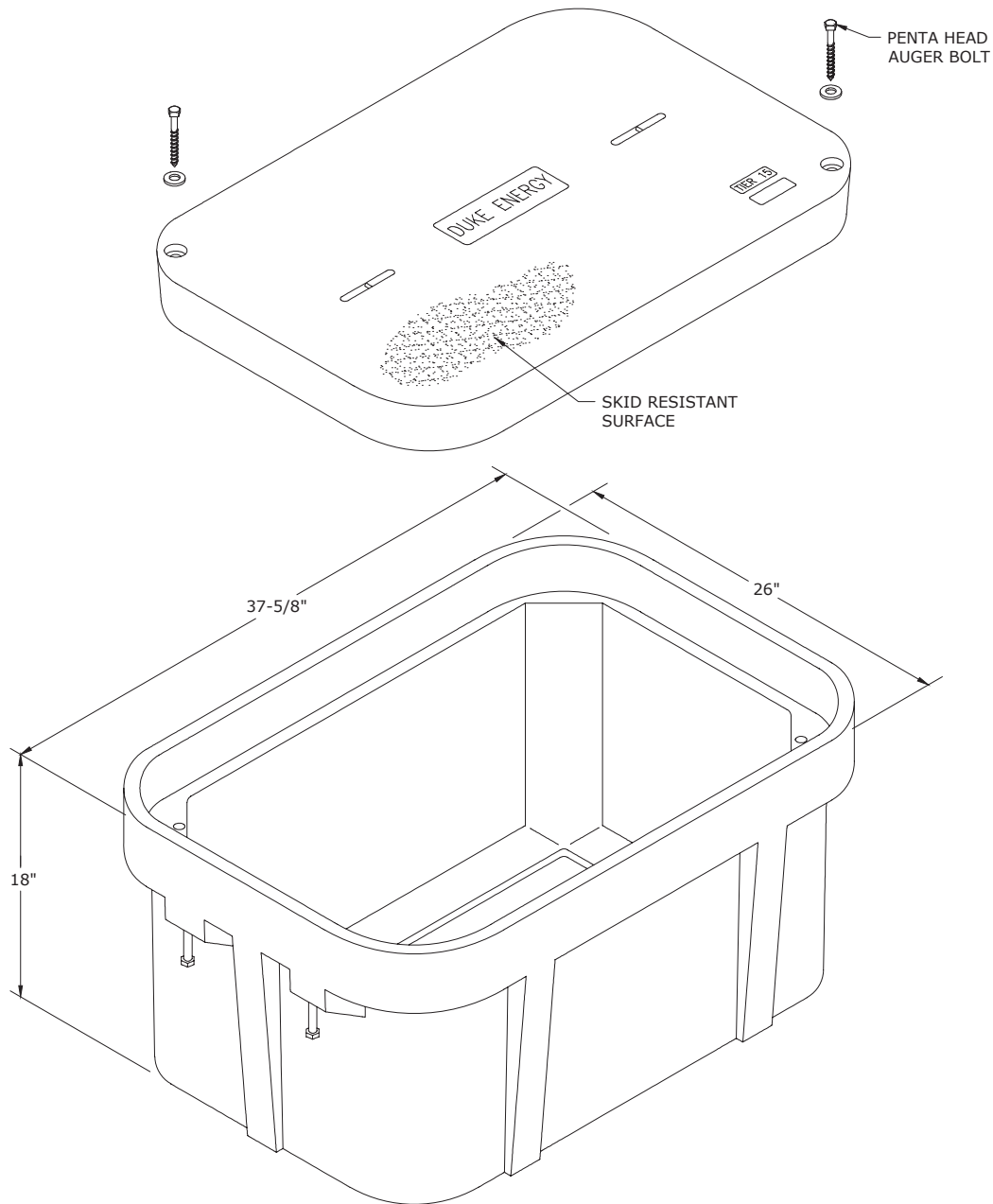
24.01-122A

NOTES:

1. THIS STANDARD APPLIES TO DEC, DEM AND THE NON-COASTAL REGIONS OF DEP.
2. MECKLENBURG COUNTY, NC REQUIRES A 2" THICK CONCRETE DIVIDER TO BE INSTALLED BETWEEN THE PRIMARY AND SECONDARY COMPARTMENTS OF THE PAD.
3. THE COMPANY RESERVES THE RIGHT TO REFUSE SERVICE TO NEW INSTALLATIONS THAT DO NOT MEET DUKE ENERGY REQUIREMENTS.
4. REFERENCE DWG. 24.01-102 TO DETERMINE IF CURBING AND ABSORPTION BED IS REQUIRED.
5. PROTECTIVE POLES ARE REQUIRED WHEN TRANSFORMERS ARE EXPOSED TO VEHICLE TRAFFIC. SEE DWG. 36.01-105 FOR PROTECTIVE POLE DETAILS.
6. THERE SHALL BE MINIMUM CLEARANCES OF 10' IN FRONT OF THE TRANSFORMER AND 3' ON ALL OTHER SIDES OF THE TRANSFORMER. SEE DWGS. 36.01-101 AND 36.01-103 FOR MORE DETAILS ON CLEARANCES.
7. TRANSFORMER MUST BE LOCATED IN AN AREA THAT ALLOWS SAFE ACCESS BY DUKE ENERGY CONSTRUCTION AND MAINTENANCE EQUIPMENT IN WET OR DRY WEATHER.
8. CONSIDER FROST ACTION, DRAINAGE, AND LOCAL SOIL CONDITIONS WHEN PREPARING SITE FOR PAD. SOIL UNDERNEATH PADS SHALL BE LEVELED AND COMPACTED. SOIL SHALL ALSO BE FREE OF ROOTS AND OTHER ORGANIC MATERIALS TO PREVENT SETTLING AND EROSION. SOD MAY BE REQUIRED AROUND PAD TO PREVENT SOIL EROSION.
9. FOR DEC AND DEP, USE FIRE ANT CONTROL IN PAD OPENINGS.
10. ALL CONDUITS IN A PIT PAD SHALL BE CUT 6" ABOVE THE GRAVEL BED IN THE PIT.
11. CUSTOMER SHALL INSTALL THE CONDUIT FOR THE PRIMARY CONDUCTORS AS CLOSE TO THE CENTER OF THE PRIMARY AREA AS PRACTICAL. THE SECONDARY CONDUITS SHALL BE INSTALLED TO THE RIGHT INSIDE THE SECONDARY AREA. SEE SERVICE GUIDE FOR PAD INSTALLATION DETAILS AND SPECIFICATIONS.
12. OTHER UTILITIES SHALL NOT BE INSTALLED UNDER TRANSFORMER PAD. SEE SECTION 36 FOR MINIMUM CABLE CLEARANCES.
13. SEE SECTION 27 OF THIS MANUAL FOR GROUND ROD AND GROUND BUS DETAILS.
- 14. THE WEIGHT OF THE PAD, PIT, AND DIVIDER, SHOWN UNDER THE ITEM NUMBER AND CU, IS INCLUDED FOR REFERENCE WHEN DETERMINING THE LIFTING TOOLS NEEDED. THE WEIGHT SHOWN ON THIS DRAWING REPRESENTS THE HEAVIEST DESIGN AMONG ALL APPROVED SUPPLIERS. THE ACTUAL WEIGHT MAY BE LESS.

								
3					DEC	DEM	DEP	DEF
2	6/30/10	MORGAN	EANES	GRAHAM	X	X	X	
1	7/8/19	VALENTIN	EANES	ADCOCK				
0	1/31/19	GORLEY	EANES	ADCOCK				
REVISED	BY	CHK'D	APPR.		24.01-122B			

LARGE PIT PAD FOR THREE-PHASE
PAD-MOUNTED TRANSFORMERS



BILL OF MATERIALS

SIZE	COMPATIBLE UNIT	CU QTY	ITEM NUMBER	ITEM QTY/ CU	DESCRIPTION
STRUCTURE HANDHOLE RECTANGULAR FIBERCRETE 24IN X 36IN X 18IN	STRUCT-PB-RECT-FGC-LG-C	1	1461393	1	BOX, ELECT, PULL, 24" WD X 36" LG X 18" DP, RECT, ANSI/SCTE 77 TIER 15 RATING, SS HARDWARE, PENTA-H

NOTES:

1. REFER TO DWGS. 25.06-101A AND 25.06-101B FOR INSTALLATION NOTES AND INFORMATION CONCERNING TIER RATINGS. THIS PEDESTAL HAS A TIER 15 RATING.
2. TRIPLEX OR QUADRUPEX CABLES, NONE LARGER THAN 750 MCM.
3. A MAXIMUM OF 6 SETS OF SECONDARY CABLE ALLOWED.
4. SEE SECTION 25.07 FOR SUBMERSIBLE CONNECTOR OPTIONS. SUBMERSIBLE CONNECTORS ONLY CAN BE USED IN THIS PEDESTAL.
5. DEPENDING UPON THE APPLICATION, THERE MAY NOT BE A CONNECTOR OPTION THAT WILL HANDLE BOTH THE MAXIMUM CONDUCTOR SIZE AND THE MAXIMUM NUMBER OF SETS ALLOWED.
6. SINCE CONNECTIONS WITHIN THESE PEDESTALS MAY BE SUBMERGED, THE PREFERRED DESIGN ALTERNATIVES ARE THE ABOVE-GRADE PEDESTALS AND CONNECTORS FOUND IN SECTION 25.02.



3				
2				
1				
0	12/31/20	EANES	FLETCHER	GRAHAM
REVISED	BY	CHK'D	APPR.	

LARGE FLUSH MOUNTED PEDESTAL

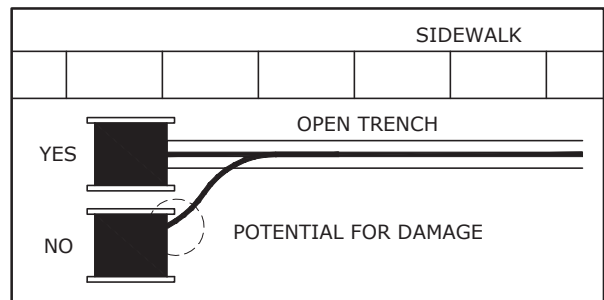
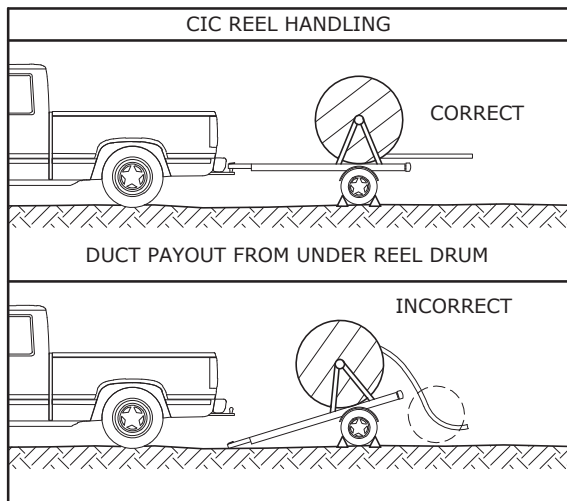
DEC	DEM	DEP	DEF
X			
25.06-115			

PVC CONDUIT PROCEDURE

NOTES:

1. ALL CONDUIT JOINTS SHOULD BE COMPLETED AND THE CEMENT SHOULD BE DRY BEFORE THE SECTIONS ARE PLACED IN TRENCH.
2. CAREFULLY LOWER CONDUIT INTO THE TRENCH. DO NOT KICK, OR THROW IT IN THE TRENCH.
3. SURROUNDING TRENCH BACKFILL MUST BE FREE OF ROCKS, CINDERS, OR OTHER DEBRIS THAT MIGHT DAMAGE THE CONDUIT DURING BACKFILL OR OVER TIME AS THE SOIL COMPRESSES.
4. INSTALL PROPER CONDUIT PLUGS AS LISTED ON DWG. 22.04-112.
5. ALL CONDUITS MUST BE KEPT PARALLEL TO EACH OTHER AND LEVEL.
6. ENCASE ALL 90° BENDS AND SWEEPS IN CONCRETE IN DEP AND DEF. DEC AND DEM SHOULD CONSIDER CONCRETE ENCASEMENT WHEN HIGH CABLE PULLING TENSIONS WILL BE ENCOUNTERED.
7. IN DEP, POWER MARKERS ARE TO BE USED TO IDENTIFY ALL PVC DEADENDS THAT ARE BURIED WITHOUT CABLE.

CIC INSTALLATION PROCEDURES



NOTES:

1. PAYOUT CIC CONDUIT FROM REEL TO AVOID "REVERSE BENDING" CONDUIT.
2. POSITION PAYOUT REEL TO MINIMIZE POSSIBILITY OF CONDUIT DAMAGE AND KINKING.



3				
2				
1				
0	12/31/15	FLETCHER	EANES	ADCOCK
REVISED	BY	CK'D	APPR.	

PVC CONDUIT AND CIC INSTALLATION PROCEDURE

DEC	DEM	DEP	DEF
X	X	X	X
22.05-106			

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3				
2				
1	4/30/21	FLETCHER	EANES	GRAHAM
0	7/31/20	FLETCHER	EANES	GRAHAM
REVISED	BY	CHK'D	APPR.	

CUSTOMER GUIDE FOR INSTALLING CONDUIT



DEC	DEM	DEP	DEF
X		X	
22.08-101A			

PURPOSE OF THIS DOCUMENT

THIS DOCUMENT PROVIDES INFORMATION AND REQUIREMENTS A CUSTOMER WILL NEED TO PROPERLY INSTALL CONDUIT IN BOTH RESIDENTIAL AND COMMERCIAL APPLICATIONS.

DEFINITIONS

SERVICE: 600-VOLT RATED UNDERGROUND CONDUCTORS BETWEEN THE UTILITY ELECTRIC SYSTEM AND THE CUSTOMERS ELECTRIC SYSTEM.

SERVICE POINT (POINT OF DELIVERY): THE POINT OF CONNECTION BETWEEN THE FACILITIES OF THE SERVING UTILITY AND THE PREMISE WIRING.

SECONDARY: 600-VOLT RATED CONDUCTOR BETWEEN PAD-MOUNTED TRANSFORMERS AND SECONDARY PEDESTALS OR BETWEEN SECONDARY PEDESTALS.

SECONDARY PEDESTAL (ALSO LISTED AS "PEDESTAL" IN THIS DOCUMENT): ABOVE-GROUND ENCLOSURE THAT ACTS AS A JUNCTION POINT FOR SECONDARY CONDUCTORS OR SECONDARY CONDUCTORS AND SERVICES.

PULL BOX: FLUSH-MOUNTED ENCLOSURE THAT ACTS AS A JUNCTION POINT FOR SECONDARY OR PRIMARY CONDUCTORS.

PAD-MOUNTED TRANSFORMER (ALSO LISTED AS "TRANSFORMER" IN THIS DOCUMENT): PAD-MOUNTED ABOVE-GROUND STYLE TRANSFORMER MOUNTED IN A STEEL ENCLOSURE FOR CONVERTING MEDIUM VOLTAGE TO SERVICE/SECONDARY VOLTAGE LEVELS.

GROUND ROD: GROUNDING ELECTRODE FOR USE AS A DIRECT CONNECTION TO EARTH.

MINIMUM COVER: THE MINIMUM ALLOWABLE DISTANCE BETWEEN THE TOP OF A BURIED CONDUIT TO FINAL GRADE.

SWITCHGEAR: AN ABOVE-GROUND PAD-MOUNTED STEEL ENCLOSURE CONTAINING MEDIUM VOLTAGE SWITCHING EQUIPMENT.

RISER OR RISER POLE: THE POINT OF CONNECTION BETWEEN THE UTILITY OVERHEAD POWER SYSTEM AND AN UNDERGROUND SYSTEM.

THREE-PHASE (REFERENCE FOR PRIMARY VOLTAGE IN THIS DOCUMENT): A MULTI-PHASE SYSTEM CONSISTING OF THREE SEPARATE PHASE CONDUCTORS IN A BUNDLED OR TRIPLEXED CONFIGURATION.

SINGLE-PHASE (REFERENCE FOR PRIMARY VOLTAGE IN THIS DOCUMENT): A PRIMARY VOLTAGE SYSTEM CONSISTING OF ONE CONDUCTOR.

LIGHTING CABLE: 600-VOLT RATED CONDUCTORS SERVING A STREET LIGHT.

CABLE ENTRANCE ZONES: AREAS DEFINED WITHIN A PROPOSED TRANSFORMER, SWITCHGEAR, AND PEDESTAL FOR USE IN STUBBING UP ELECTRICAL CONDUITS.

PRIMARY: MEDIUM VOLTAGE CABLE TYPICALLY NOT EXCEEDING 1/0 AWG IN SIZE (TYPICALLY 7.2 KV TO 14.4 KV PHASE TO GROUND). CAN BE SINGLE-PHASE OR THREE-PHASE.

FEEDER: MEDIUM VOLTAGE CABLE GREATER THAN 1/0 AWG IN SIZE (TYPICALLY 7.2 KV TO 14.4 KV PHASE TO GROUND), THREE-PHASE ONLY.

LOOP: REFERS TO A CIRCUIT THAT CAN BE FED FROM REDUNDANT (2) SOURCES. IT IS CRITICAL FOR EACH CABLE ON THE SAME LOOP TO BE SEPARATED WITHIN A TRENCH.

MANDREL: CYLINDRICAL OBJECT PULLED THROUGH A CONDUIT SYSTEM TO VERIFY THE INTEGRITY OF THE SYSTEM AND THAT CABLE CAN BE SUCCESSFULLY PULLED THROUGH THE SYSTEM.



3				
2				
1				
0	7/31/20	FLETCHER	EANES	GRAHAM
REVISED	BY	CHK'D	APPR.	

CUSTOMER GUIDE FOR INSTALLING CONDUIT

DEC	DEM	DEP	DEF
X		X	

22.08-101B

CUSTOMER RESPONSIBILITIES

- THE CONDUIT DESIGN WILL BE PROVIDED BY THE DUKE ENERGY DESIGNER. THE DESIGN WILL SHOW THE LOCATION WHERE ALL FACILITIES (CONDUIT, PULL BOXES/MANHOLES, PEDESTALS, TRANSFORMERS, SWITCHGEAR, POLES, ETC.) WILL BE INSTALLED. ANY PROPOSED CHANGES IN THE CONDUIT DESIGN MUST BE REVIEWED AND APPROVED BY THE DUKE ENERGY DESIGNER PRIOR TO INSTALLATION.
- PROVIDE ALL MATERIAL RELATED TO THE CONDUIT SYSTEM AND THE LABOR TO INSTALL THIS MATERIAL.
- COMPLY WITH ALL REQUIREMENTS LISTED IN THIS DOCUMENT.
- INSPECT THE CONDUIT SYSTEM AND CORRECT ALL INSTANCES OF NON-COMPLIANCE WITH THE REQUIREMENTS LISTED IN THIS DOCUMENT.
- CUSTOMER IS RESPONSIBLE FOR INSTALLING CONDUIT AND CABLE UP TO THE POINT OF DELIVERY AS DEFINED IN THE SERVICE REQUIREMENTS MANUAL.

DUKE ENERGY RESPONSIBILITIES

- THE CONDUIT DESIGN WILL BE PROVIDED BY THE DUKE ENERGY DESIGNER. THE DESIGN WILL SHOW THE LOCATION WHERE ALL FACILITIES (CONDUIT, PULL BOXES/MANHOLES, PEDESTALS, TRANSFORMERS, SWITCHGEAR, POLES, ETC.) WILL BE INSTALLED. ANY PROPOSED CHANGES IN THE CONDUIT DESIGN MUST BE REVIEWED AND APPROVED BY THE DUKE ENERGY DESIGNER PRIOR TO INSTALLATION.
- PROVIDE ALL CABLE AND ASSOCIATED MATERIALS ALONG WITH THE LABOR TO INSTALL THESE MATERIALS UP TO THE POINT OF DELIVERY.
- COORDINATE WITH THE CUSTOMER TO DETERMINE THE BEST METHOD OF MARKING THE ROUTE OF ALL APPLICABLE PRIMARY AND SECONDARY CABLE, AND THE LOCATION OF ALL EQUIPMENT (TRANSFORMERS, SWITCHGEAR, ETC.), PEDESTALS, PULL BOXES, RISERS AND STREET LIGHT POLES. EQUIPMENT WILL NORMALLY BE PLACED DIRECTLY ON TOP OF THE CABLE ROUTE TO REDUCE THE NUMBER OF 90-DEGREE BENDS.
- SPECIFY THE SIZE, NUMBER AND POSITION OF CONDUITS THAT WILL BE INSTALLED IN EACH PIECE OF EQUIPMENT (TRANSFORMER, PEDESTAL, ETC.).
- INSPECT THE CONDUIT SYSTEM PRIOR TO THE INSTALLATION OF CABLE.
- DUKE ENERGY RESERVES THE RIGHT TO REFUSE ACCEPTANCE OF ANY PORTION OF A CONDUIT SYSTEM THAT DOES NOT MEET ALL THE REQUIREMENTS LISTED IN THIS DOCUMENT. IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO CORRECT ALL INSTANCES OF NON-COMPLIANCE.
- ● ONCE THE CONDUIT SYSTEM HAS BEEN INSPECTED BY DUKE ENERGY AND ALL CABLE AND EQUIPMENT HAVE BEEN INSTALLED, DUKE ENERGY WILL MAKE ANY NECESSARY FUTURE REPAIRS OR ALTERATIONS TO THE CONDUIT SYSTEM AT ITS EXPENSE.

TRENCH REQUIREMENTS

- THE UNDERGROUND TRENCH CONTAINING ELECTRIC CABLES IS FOR THE SOLE USE OF DUKE ENERGY. NO OTHER UTILITIES OR FACILITIES FOR IRRIGATION, LIGHTING, SECURITY, PLUMBING, OR ANY OTHER PURPOSE MAY BE INSTALLED IN THE TRENCH WITHOUT THE EXPRESS PERMISSION OF DUKE ENERGY.
- THE BOTTOM OF THE TRENCH MUST BE SMOOTH AND FREE OF ROCKS, ROOTS, CONSTRUCTION DEBRIS OR ANY OTHER HARD OR SHARP OBJECT. IF NECESSARY, INSTALL A FEW INCHES OF CLEAN BACKFILL TO COVER ANY OF THESE ITEMS THAT CANNOT BE REMOVED.
- ALL CONDUIT MUST BE INSTALLED AT THE PROPER DEPTH AND WITH PROPER SEPARATION AS SHOWN ON THE TABLES ON DWG. 22.08-101D.
- THE MAXIMUM TRENCH DEPTH MUST NOT EXCEED FOUR (4) FEET, EXCEPT WHERE REQUIRED AT ENTRANCE POINTS FOR CONDUIT BENDS INTO PIT PADS OR PULL BOXES.
- THE CUSTOMER MUST BACKFILL ALL TRENCHES WHERE CUSTOMER-INSTALLED CONDUIT WAS PROVIDED.
- ALL BACKFILL MUST BE FREE OF ROCKS, CONSTRUCTION DEBRIS, OR ANY OTHER HARD OBJECTS.
- ALL BACKFILL MUST BE COMPACTED TO THE FIRMNESS OF UNDISTURBED SOIL.
- THE CUSTOMER WILL BE RESPONSIBLE FOR ANY SETTLING OR WASHOUT OF THE TRENCH.



3				
2				
1	8/17/20	FLETCHER	EANES	GRAHAM
0	7/30/20	FLETCHER	EANES	GRAHAM
REVISED	BY	CHK'D	APPR.	

CUSTOMER GUIDE FOR INSTALLING CONDUIT

DEC	DEM	DEP	DEF
X		X	
22.08-101C			

ALL CONDUIT MUST BE INSTALLED AT THE PROPER DEPTH AND WITH PROPER SEPARATION AS SHOWN BELOW.

TABLE 1: MINIMUM CONDUIT COVER

CABLE OR APPLICATION	MINIMUM COVER (X)	SPECIFIC NOTES
SECONDARY / SERVICE	30"	SEE NOTE 2
PRIMARY (1Ø OR 3Ø)	36"	SEE NOTE 2
ROAD CROSSINGS (ANY VOLTAGE)	36"	-
PARKING LOT CROSSINGS (ANY VOLTAGE)	36"	SEE NOTE 2

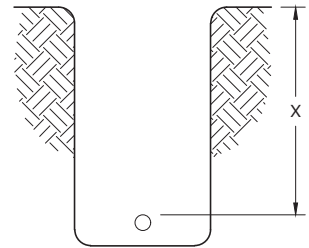


TABLE 2: REQUIRED MINIMUM HORIZONTAL SEPARATION BETWEEN CONDUITS.

COLUMN 1	MINIMUM HORIZONTAL SEPARATION FROM CABLES IN COLUMN 1 (X)				
CABLE	SECONDARY / SERVICE	PRIMARY, 200A (1Ø OR 3Ø)	PRIMARY, 200A (1Ø OR 3Ø) WHEN BOTH CABLES ARE NOT PART OF THE SAME LOOP	PRIMARY, 200A (1Ø OR 3Ø) WHEN BOTH CABLES ARE PART OF THE SAME LOOP	FEEDER (>200A)
SECONDARY / SERVICE	NO REQUIRED SEPARATION SEE FIGURE 1	NO REQUIRED SEPARATION SEE FIGURE 1			36" SEE FIGURE 3
PRIMARY, 200A (1Ø OR 3Ø)	NO REQUIRED SEPARATION SEE FIGURE 1		NO REQUIRED SEPARATION SEE FIGURE 1	36" SEE FIGURE 2	36" SEE FIGURE 3
FEEDER (>200A)	36" SEE FIGURE 3	36" SEE FIGURE 3			36" SEE FIGURE 3

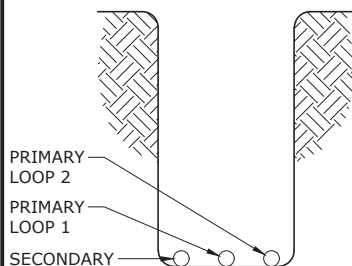
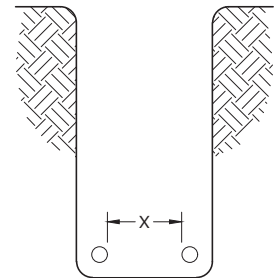


FIGURE 1
NO SEPARATION BETWEEN CONDUITS

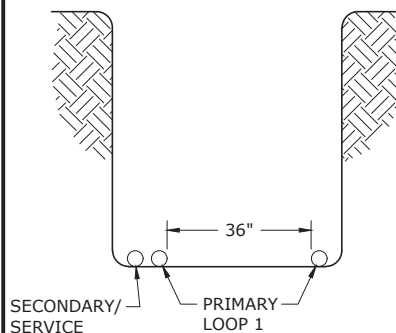


FIGURE 2
36" SPACING BETWEEN CONDUITS OF SAME PRIMARY LOOP

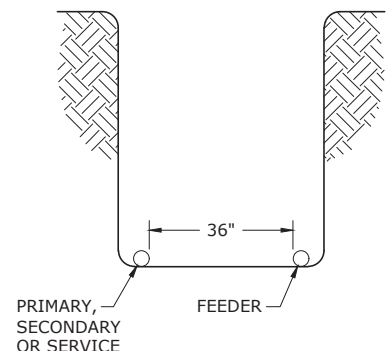


FIGURE 3
36" SPACING BETWEEN FEEDER CONDUITS AND THOSE CONTAINING ANY OTHER TYPE OF CABLE

NOTES:

- DISTANCES ARE MEASURED TO THE SURFACE OF THE CABLE OR CONDUIT.
- PRIMARY CABLES LESS THAN 30" DEEP OR SECONDARY CABLES LESS THAN 24" DEEP MUST BE INSTALLED IN MINIMUM SCHEDULE 40 CONDUIT WITH A MINIMUM OF TWO (2) INCHES OF CONCRETE ABOVE AND BESIDE THE CONDUIT AND A MINIMUM OF SIX (6) INCHES OF COVER.
- FEEDER (>200A) CONDUITS MUST BE SEPARATED HORIZONTALLY FROM CONDUITS CONTAINING ANY OTHER TYPE OF CABLE BY 36".
- EITHER ONE WIDE TRENCH OR TWO NARROW TRENCHES MAY BE USED, BASED ON ECONOMICS, TO OBTAIN REQUIRED HORIZONTAL SEPARATION.



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CUSTOMER GUIDE FOR INSTALLING CONDUIT

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MATERIAL REQUIREMENTS

- PVC CONDUIT AND CONDUIT FITTINGS MUST BE SCHEDULE 40 OR GREATER, RATED FOR USE WITH 90° C ELECTRICAL CABLE, UL LISTED AND GRAY IN COLOR. NO WATER, SEWER, GAS OR TELECOMMUNICATION PIPE MAY BE USED. EACH LENGTH OF CONDUIT AND EACH BEND MUST HAVE AN INTEGRAL BELL ON ONE END. THE CONDUIT MANUFACTURER'S NAME, CONDUIT SIZE, TYPE AND DATE CODE MUST BE PRINTED ON THE SURFACE OF THE CONDUIT.
- HDPE CONDUIT MUST BE SDR 13.5 OR GREATER, RATED FOR USE WITH 90°C ELECTRICAL CABLE, AND BLACK WITH EITHER 3 OR 4 RED STRIPES OR TOTALLY RED. THE CONDUIT MANUFACTURER'S NAME, CONDUIT SIZE, TYPE AND DATE CODE MUST BE PRINTED ON THE SURFACE OF THE CONDUIT.

CONDUIT SIZE WILL BE AS FOLLOWS.

APPLICATION	CONDUIT SIZE
SINGLE-PHASE 25KV 1/0 AWG PRIMARY	2"
SINGLE-PHASE 35KV 1/0 AWG PRIMARY	3"
THREE-PHASE 25KV 1/0 AWG PRIMARY	4"
THREE-PHASE 35KV 1/0 AWG PRIMARY	6"
THREE-PHASE PRIMARY (GREATER THAN 1/0 AWG)	6"
600V SECONDARY (TX TO PEDESTAL)	3"
600V SERVICES (RESIDENTIAL) (SEE NOTE 1)	2-1/2"
LIGHTING CABLE	2"

NOTE 1: DUKE ENERGY WILL PROVIDE THE REQUIRED CONDUIT SIZE FOR RESIDENTIAL BUILDINGS WHERE THE SERVICE CABLE WILL FEED GANGED METER PANELS.

NOTE 2: OTHER FACTORS SUCH AS LENGTH OF PULL, NUMBER OF BENDS, AVAILABILITY OF MATERIAL, ETC. MAY JUSTIFY OR REQUIRE LARGER SIZES THAN THOSE SHOWN IN THIS TABLE.

- WHEN HDPE CONDUIT IS USED, PVC BENDS MUST BE ATTACHED TO ALLOW THE CONDUIT SYSTEM TO ENTER TRANSFORMERS, SWITCHGEAR, PEDESTALS, ETC. THE FOLLOWING OPTIONS ARE THE ONLY APPROVED METHODS TO CONNECT HDPE CONDUIT TO PVC CONDUIT OR FITTINGS. THESE OPTIONS MAY ALSO BE USED TO JOIN TWO PIECES OF HDPE CONDUIT, EXCEPT WHEN ONE OF THE PIECES WILL BE USED TO PULL THE OTHER INTO POSITION THROUGH A DIRECTIONAL BORE.

A. SHUR LOCK II COUPLINGS: THESE ARE PLASTIC, SLIP-ON COUPLINGS, WITH STAINLESS STEEL BANDS MADE BY DURALINE.



B. BONDUIT ADHESIVE: THIS ADHESIVE IS FORMULATED TO BOND TO BOTH HDPE AND PVC.



C. MOR CLAMP COUPLINGS: THESE ARE BOLTED, STAINLESS STEEL, SLIP-ON COUPLINGS MADE BY DURALINE. THESE COUPLINGS ARE EXPENSIVE, SO THEY WILL TYPICALLY BE USED ONLY ON LARGE CONDUIT AND ONLY WHEN NECESSARY BECAUSE THE CONDUIT IS OUT-OF-ROUND.



THESE METHODS ALSO ALLOW HDPE CONDUIT PIECES TO BE JOINED TOGETHER OR FOR HDPE CONDUIT TO BE JOINED TO PVC CONDUIT.

- ALL PVC COUPLINGS MUST HAVE A CENTER STOP.
- ALL 6" BENDS MUST HAVE A 48" MINIMUM RADIUS AND ALL OTHER BENDS MUST HAVE A 36" MINIMUM RADIUS. ALL BENDS MUST HAVE AN INTEGRAL BELL ON ONE END.
- PULL STRINGS MUST BE MADE OF A MATERIAL THAT WILL NOT ROT, (I.E., NYLON).



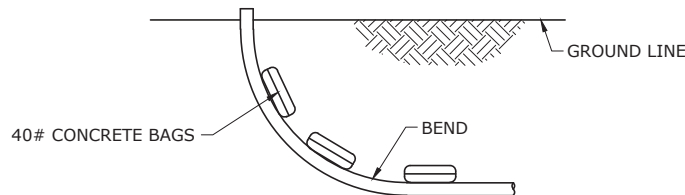
3	2/14/22	FLETCHER	EANES	GRAHAM
2	4/30/21	FLETCHER	EANES	GRAHAM
1	8/17/20	FLETCHER	EANES	GRAHAM
0	7/31/20	FLETCHER	EANES	GRAHAM
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CUSTOMER GUIDE FOR INSTALLING CONDUIT

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CONDUIT AND FITTING INSTALLATION

- EXAMINE ALL CONDUIT AND CONDUIT ACCESSORIES BEFORE THEY ARE INSTALLED FOR SHARP EDGES, OUT-OF-ROUND SHAPE, CRACKS, CHIPS, BURRS, AND INSIDE PROTRUSIONS THAT WOULD DAMAGE THE CABLE WHEN IT IS PULLED INTO POSITION. SUCH PIECES SHALL NOT BE INSTALLED.
- REMOVE ANY SHARP EDGES THAT ARE CREATED ON THE INSIDE OR OUTSIDE OF CONDUIT WHEN IT IS CUT.
- ALL SECTIONS OF PVC CONDUIT AND ALL FITTINGS MUST BE CEMENTED TOGETHER USING A PVC CONDUIT SOLVENT CEMENT RATED FOR USE WITH ELECTRICAL PVC CONDUIT THAT CHEMICALLY BONDS THE TWO PVC PARTS TOGETHER. DO NOT USE CEMENT DESIGNED FOR USE WITH PLUMBING PVC PIPE. THE MATING SURFACES MUST BE 1) PROPERLY CLEANED; 2) A THIN, UNIFORM COATING OF CEMENT APPLIED OVER THE ENTIRE MATING SURFACES (THE OUTER SURFACE OF A PLAIN END AND THE INNER SURFACE OF A BELL END); 3) FULLY SEAT BOTH PIECES; AND 4) TWIST THE PIECES ONE QUARTER TURN TO THEIR REQUIRED POSITION.
- CONDUIT MUST LIE FLAT ON THE BOTTOM OF THE TRENCH.
- A CONTINUOUS PULL STRING, WITH NO KNOTS OR SPLICES, MUST BE PROVIDED THROUGHOUT THE LENGTH OF EACH INDIVIDUAL CONDUIT SEGMENT AND EXTEND AT LEAST THREE FEET OUTSIDE OF EACH STUB-UP. FOR EXAMPLE, A SINGLE PULL STRING MUST EXTEND FROM A TRANSFORMER, PASS THROUGH ALL BENDS AND CONDUIT PIECES, AND THEN EXIT AT A PEDESTAL.
- PULL STRINGS MUST BE TESTED TO VERIFY THEY WERE NOT INADVERTENTLY GLUED TO A PIECE OF CONDUIT OR A FITTING. THE CUSTOMER WILL BE REQUIRED TO INSTALL NEW PULL STRINGS IN ANY CONDUIT SEGMENT WHERE THE INITIAL PULL STRINGS ARE NOT USABLE.
- EACH CONDUIT SEGMENT (TRANSFORMER TO TRANSFORMER, TRANSFORMER TO PEDESTAL, PEDESTAL TO SERVICE RISER, ETC.) MUST BE COLOR CODED ON EACH END WITH THE SAME COLOR OF VINYL TAPE OR SPRAY PAINT OR, WEATHER-RESISTANT, NON-FADABLE ADHESIVE LABELS MAY BE APPLIED. WHEN MULTIPLE BENDS OR CONDUITS ARE Banded TOGETHER, SUCH AS IN A TRANSFORMER, THE COLOR CODING OR LABELS ON EACH BEND OR CONDUIT MUST BE READILY VISIBLE.
- CUSTOMER SHALL PULL A SOLID MANDREL, NO MORE THAN 1/2 INCH SMALLER THAN THE INSIDE DIAMETER OF THE CONDUIT, THROUGH ALL CONDUIT SEGMENTS TO VERIFY THEY ARE IN GOOD CONDITION AND FREE OF OBSTACLES.
- CONDUITS MUST BE PLUGGED TO PREVENT DEBRIS, RAIN, ETC. FROM ENTERING THE CONDUIT. TAPE OR RAGS ARE NOT SUFFICIENT. THESE PLUGS MUST **NOT** BE CEMENTED ONTO THE CONDUIT OR FITTING.
- NO WIRES, CABLES, CONDUITS, INNER-DUCTS, OR ANY OTHER ITEMS MAY BE INSTALLED IN THE CONDUITS INSTALLED FOR DUKE ENERGY. THIS INCLUDES FACILITIES FOR LIGHTING, SECURITY, LANDSCAPING, COMMUNICATION, OTHER UTILITIES OR THE CUSTOMER. THE CUSTOMER WILL BE REQUIRED TO REMOVE ANY SUCH FACILITIES THAT ARE FOUND.
- WHEN MULTIPLE DEVELOPERS ARE INSTALLING CONDUIT FOR DUKE ENERGY ALONG A SINGLE CONDUIT SEGMENT (ONE TRANSFORMER TO ANOTHER TRANSFORMER, A TRANSFORMER TO A PEDESTAL, ETC.), THE DEVELOPERS ARE REQUIRED TO JOIN THEIR CONDUIT SECTIONS TOGETHER, INSTALL A SINGLE PULL STRING FROM ONE END OF THE CONDUIT SEGMENT (THE TRANSFORMER, PEDESTAL, ETC.) TO THE OTHER END OF THE CONDUIT SEGMENT, AND TO PROPERLY LABEL BOTH ENDS OF THE CONDUIT SEGMENT.
- MULTIPLE BENDS/CONDUITS MUST BE FIRMLY Banded TOGETHER IN THE PROPER CONFIGURATION AND WITHIN THE REQUIRED DIMENSIONS PROVIDED IN THIS DOCUMENT WHEN INSTALLED IN TRANSFORMERS, SWITCHGEAR, PEDESTALS, ETC.
- ALL CONDUITS MUST BE FREE OF WATER, MUD, DIRT OR ANY OTHER FOREIGN MATTER. THE CUSTOMER MUST INSPECT, CLEAN AND REPAIR ANY CONDUITS THAT CONTAIN FOREIGN MATTER.
- PLACE TWO, FORTY (40) POUND BAGS OF CONCRETE AGAINST EACH 90° BEND CONTAINING SECONDARY/ SERVICE CABLE AND THREE, FORTY (40) POUND BAGS AGAINST BENDS CONTAINING PRIMARY CABLE TO PREVENT MOVEMENT DURING CABLE PULLING. DO NOT OPEN THE BAGS, JUST MAKE THREE CUTS ACROSS THE FRONT OF THE BAG TO ALLOW MOISTURE TO ENTER, AND PLACE THEM AGAINST THE BEND.
- IT IS NOT NECESSARY TO DOUBLE THE REQUIRED NUMBER OF CONCRETE BAGS WHEN TWO BENDS ARE INSTALLED SIDE-BY-SIDE. USE THE NUMBER OF BAGS REQUIRED FOR A SINGLE BEND AND POSITION THE BAGS SO THEY WILL COVER BOTH BENDS.
- BAGS OF CONCRETE ARE NOT REQUIRED ON 90 DEGREE BENDS WHEN THE TOTAL LENGTH OF THE CONDUIT SECTION IS 100 FEET OR LESS.
- ● BAGS OF CONCRETE ARE NOT REQUIRED FOR RESIDENTIAL SERVICES THAT WILL NOT UTILIZE MECHANICAL PULLING EQUIPMENT FOR INSTALLING THE CABLE INTO THE CONDUIT.



SECURING BENDS WITH BAGS OF CONCRETE



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2	5/20/22	FLETCHER	EANES	GRAHAM
1	10/1/21	FLETCHER	EANES	GRAHAM
0	4/30/21	FLETCHER	EANES	GRAHAM
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CUSTOMER GUIDE FOR INSTALLING CONDUIT

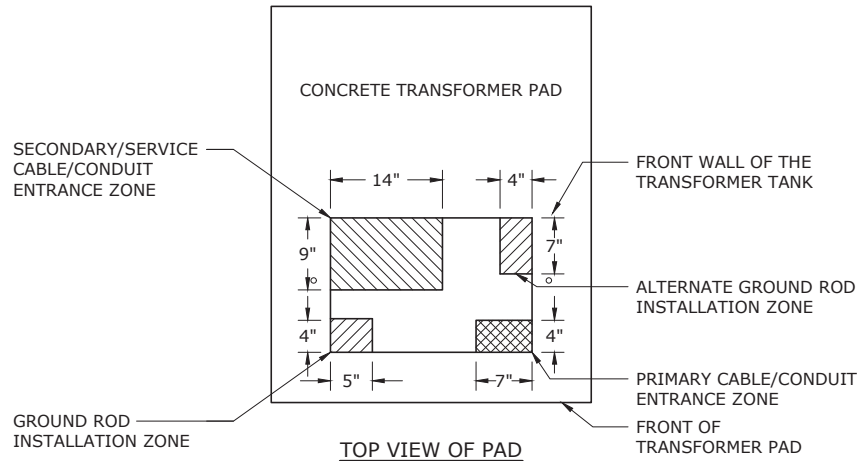
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CONDUIT POSITIONING IN TRANSFORMERS

1. SINGLE-PHASE PAD-MOUNTED TRANSFORMERS

- CONDUITS SHALL NOT BE INSTALLED OUTSIDE THE DESIGNATED ZONES SHOWN IN THE DRAWING BELOW. THE PAD CANNOT BE INSTALLED IF THESE DIMENSIONS ARE EXCEEDED. DUKE ENERGY RECOMMENDS THAT A TEMPLATE BE CONSTRUCTED AND USED TO VERIFY PROPER LOCATION OF THESE CONDUITS. THE OPENING ON THE CONCRETE PAD IS 26" X 16".

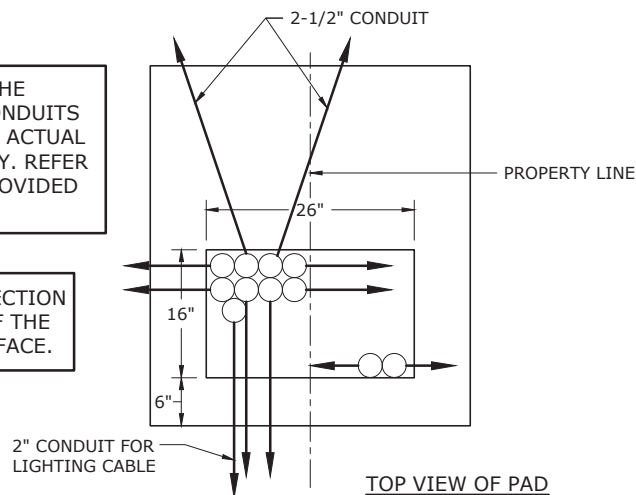
SINGLE-PHASE TRANSFORMER CABLE ENTRANCE ZONES



CONDUIT CONFIGURATIONS IN DEC SINGLE-PHASE PAD-MOUNTED TRANSFORMER PADS

THIS DRAWING SHOWS THE MAXIMUM NUMBER OF CONDUITS THAT CAN BE INSTALLED. ACTUAL INSTALLATIONS MAY VARY. REFER TO THE JOB DRAWING PROVIDED BY DUKE ENERGY.

ARROWS SHOW THE DIRECTION THE BOTTOM PORTION OF THE 90-DEGREE BENDS WILL FACE.



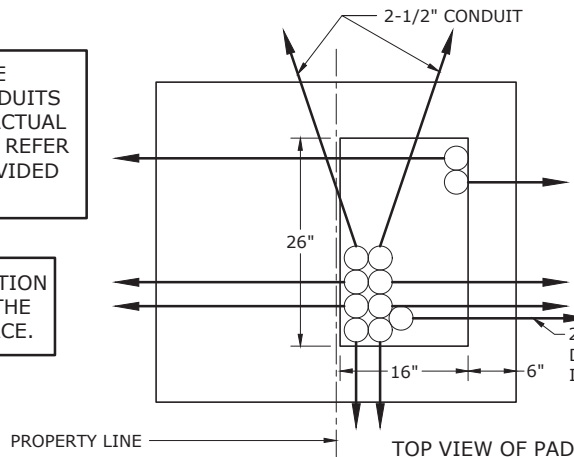
NO OTHER UTILITIES MAY BE INSTALLED UNDER A TRANSFORMER PAD.

ALL CONDUITS ARE 3" UNLESS NOTED OTHERWISE.

CONDUIT CONFIGURATIONS IN DEP SINGLE-PHASE PAD-MOUNTED TRANSFORMER PADS

THIS DRAWING SHOWS THE MAXIMUM NUMBER OF CONDUITS THAT CAN BE INSTALLED. ACTUAL INSTALLATIONS MAY VARY. REFER TO THE JOB DRAWING PROVIDED BY DUKE ENERGY.

ARROWS SHOW THE DIRECTION THE BOTTOM PORTION OF THE 90-DEGREE BENDS WILL FACE.



NO OTHER UTILITIES MAY BE INSTALLED UNDER A TRANSFORMER PAD.

ALL CONDUITS ARE 3" UNLESS NOTED OTHERWISE.



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CUSTOMER GUIDE FOR INSTALLING CONDUIT

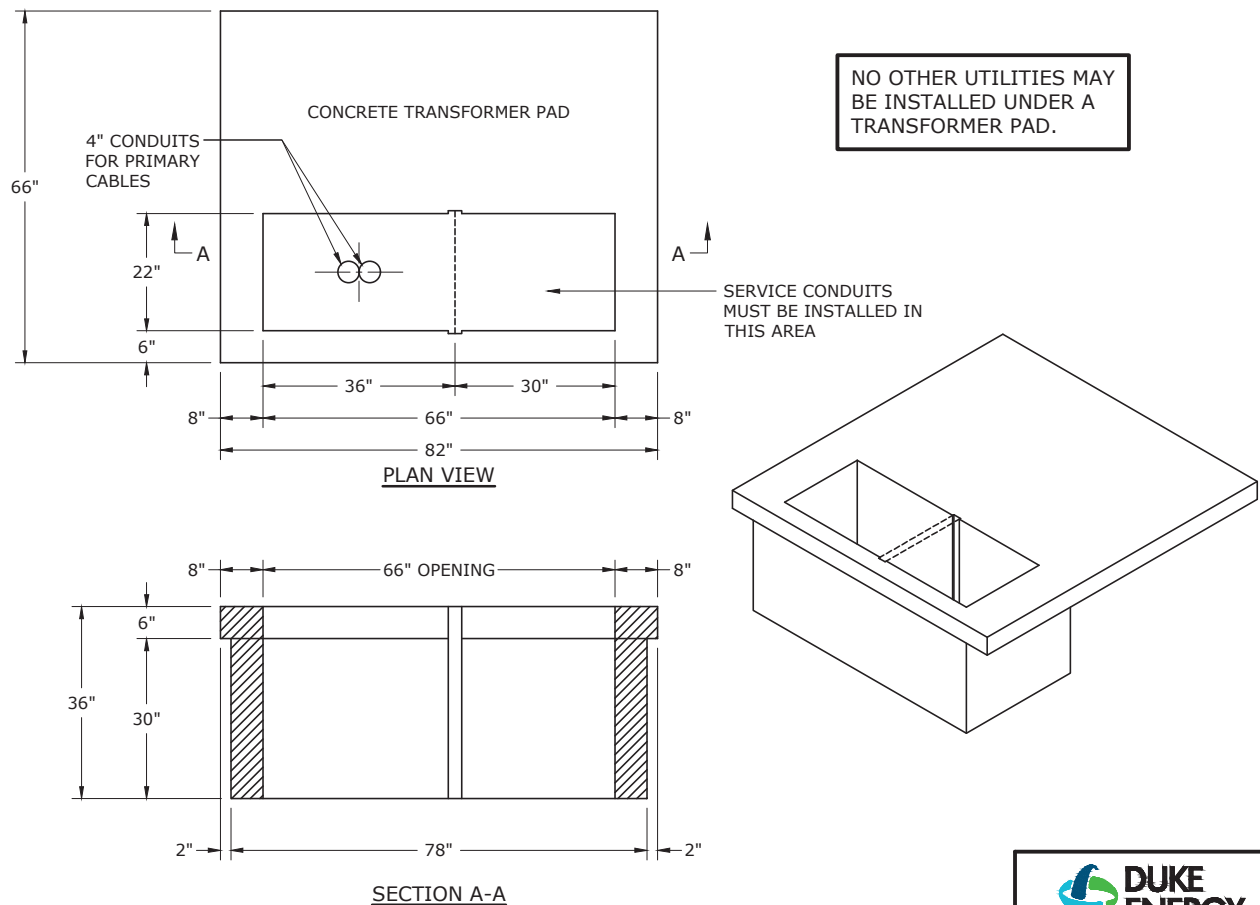
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- INSTALL EQUIPMENT ABOVE THE TRENCH TO ELIMINATE THE NUMBER OF REQUIRED CONDUIT BENDS.
- A MAXIMUM OF EIGHT (8) SECONDARY/SERVICE CONDUITS, TWO (2) PRIMARY CABLE CONDUITS, AND ONE (1) LIGHTING CABLE CONDUIT CAN BE INSTALLED IN SINGLE-PHASE TRANSFORMERS; HOWEVER, QUITE OFTEN, FEWER CONDUITS WILL BE REQUIRED. WHEN FEWER THAN EIGHT (8) SECONDARY/SERVICE CONDUITS WILL BE INSTALLED, KEEP THE CONDUITS AS FAR TO THE LEFT SIDE OF THE 9" X 14" SECONDARY/SERVICE CONDUIT ENTRANCE ZONE AS POSSIBLE. NO PART OF ANY CONDUIT MAY EXTEND OUTSIDE OF THIS ZONE.
- BE CERTAIN TO LEAVE A SPACE BESIDE THE CONDUITS FOR THE INSTALLATION OF THE GROUND ROD.
- THE TRANSFORMER PAD MUST BE POSITIONED SO THE FRONT OF THE TRANSFORMER WILL FACE THE STREET IN DEC LOCATIONS AND BE TURNED TO THE RIGHT IN DEP LOCATIONS.
- THERE SHALL BE NO ABOVE-GROUND OBSTRUCTIONS WITHIN TEN (10) FEET OF THE FRONT OF THE TRANSFORMER OR WITHIN THREE (3) FEET OF THE SIDES AND BACK.
- THE GROUND UNDER THE PAD SHALL BE LEVEL AND THOROUGHLY COMPACTED.
- EXTEND CONDUITS THREE (3) INCHES ABOVE THE SOIL.
- • PLACE TWO (2), FORTY (40) POUND BAGS OF CONCRETE AGAINST EACH BEND CONTAINING SECONDARY/SERVICE CABLE AND THREE (3), FORTY (40) POUND BAGS AGAINST BENDS CONTAINING PRIMARY CABLE AS SHOWN ON DWG. 22.08-101F TO PREVENT MOVEMENT DURING CABLE PULLING. DO NOT OPEN THE BAGS, JUST MAKE THREE CUTS ACROSS THE FRONT OF THE BAG TO ALLOW MOISTURE TO ENTER, AND PLACE THEM AGAINST THE BEND.
- INSTALL PLUGS IN EACH CONDUIT TO KEEP SAND, RAIN, ETC. OUT OF THE CONDUITS. DO **NOT** GLUE THE PLUGS ONTO THE CONDUIT.

2. THREE-PHASE PAD-MOUNTED TRANSFORMERS 75KVA THROUGH 300KVA

- CONDUITS FOR PRIMARY AND SERVICE CABLES SHALL BE INSTALLED AS SHOWN IN THE DRAWING BELOW.

CONDUIT POSITIONS IN SMALL THREE-PHASE PAD-MOUNTED TRANSFORMER PADS



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CUSTOMER GUIDE FOR INSTALLING CONDUIT



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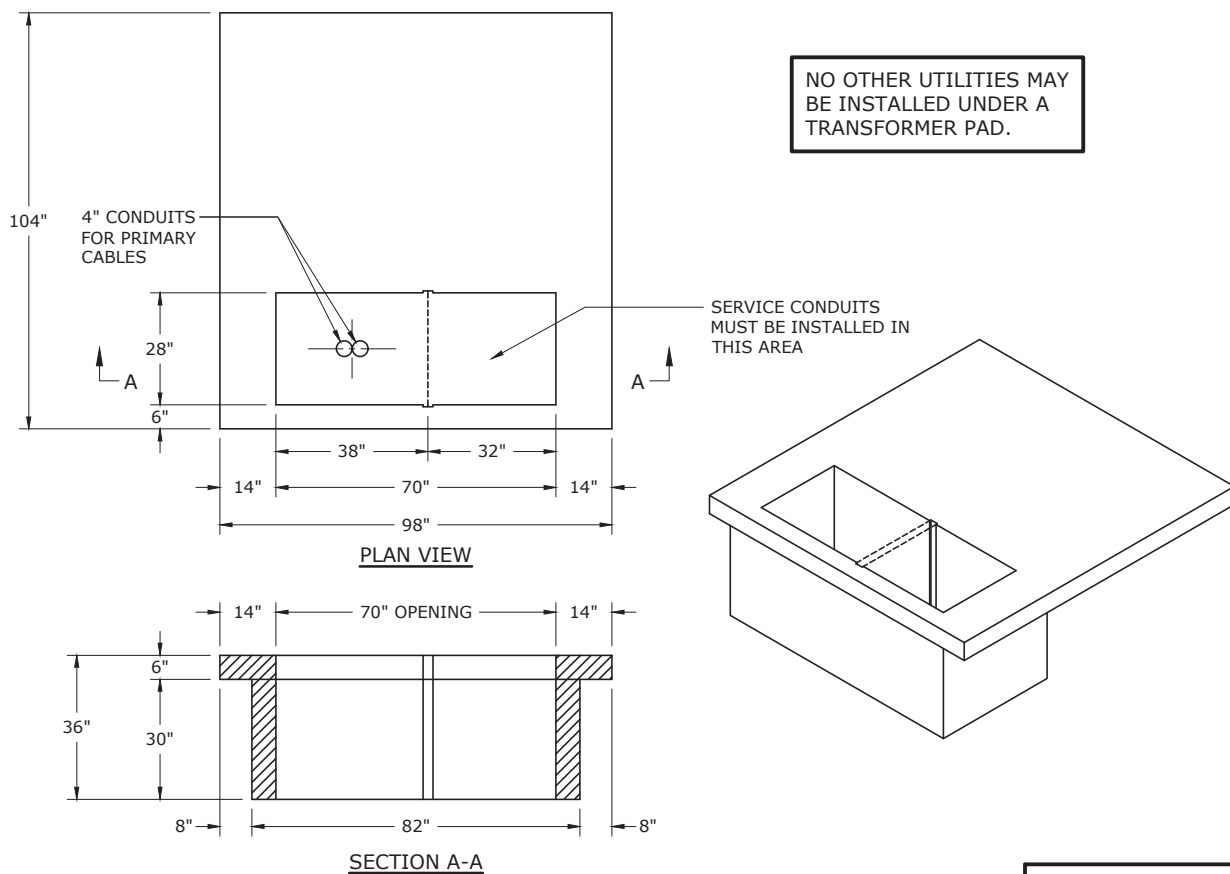
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- THERE SHALL BE NO ABOVE-GROUND OBSTRUCTIONS WITHIN TEN (10) FEET OF THE FRONT OF THE TRANSFORMER OR WITHIN THREE (3) FEET OF THE SIDES AND BACK. IF A METER IS INSTALLED ON THE TRANSFORMER, NO OBSTRUCTIONS MAY BE WITHIN FOUR (4) FEET OF THAT SIDE.
- SIDE VENTILATION MAY BE REQUIRED IF A WALL IS TO BE CONSTRUCTED AROUND THE TRANSFORMER. CONTACT DUKE ENERGY TO OBTAIN THE REQUIRED SEPARATION BETWEEN THE TRANSFORMER AND A WALL.
- THE GROUND UNDER THE PAD SHALL BE LEVEL AND THOROUGHLY COMPACTED.
- INSTALL BENDS FOR THE PRIMARY CABLE IN THE CENTER OF THE DESIGNATED PRIMARY CABLE AREA AS SHOWN ON DWG. 22.08-101H.
- CONDUITS FOR SECONDARY/SERVICE CABLES ARE TO BE CENTERED IN THE AREA SHOWN ON DWG. 22.08-101H. NO PART OF ANY CONDUIT MAY EXTEND OUTSIDE OF THE DIMENSIONS SHOWN.
- • PLACE THREE, FORTY (40) POUND BAGS OF CONCRETE AGAINST EACH 90° BEND CONTAINING PRIMARY CABLE AS SHOWN ON DWG. 22.08-101F TO PREVENT MOVEMENT DURING CABLE PULLING. DO NOT OPEN THE BAGS, JUST MAKE THREE CUTS ACROSS THE FRONT OF THE BAG TO ALLOW MOISTURE TO ENTER, AND PLACE THEM AGAINST THE BEND.
- ALL CONDUITS IN A PIT PAD SHALL EXTEND 6" ABOVE THE GRAVEL BED IN THE PIT.
- INSTALL PLUGS IN EACH CONDUIT TO KEEP SAND, RAIN, ETC. OUT OF THE CONDUITS. DO NOT GLUE THE PLUGS ONTO THE CONDUIT.

3. THREE-PHASE PAD-MOUNTED TRANSFORMERS 500KVA THROUGH 5000KVA

- CONDUITS FOR PRIMARY AND SERVICE CABLES SHALL BE INSTALLED AS SHOWN IN THE DRAWING BELOW.

CONDUIT POSITIONS IN LARGE THREE-PHASE PAD-MOUNTED TRANSFORMER PADS



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CUSTOMER GUIDE FOR INSTALLING CONDUIT



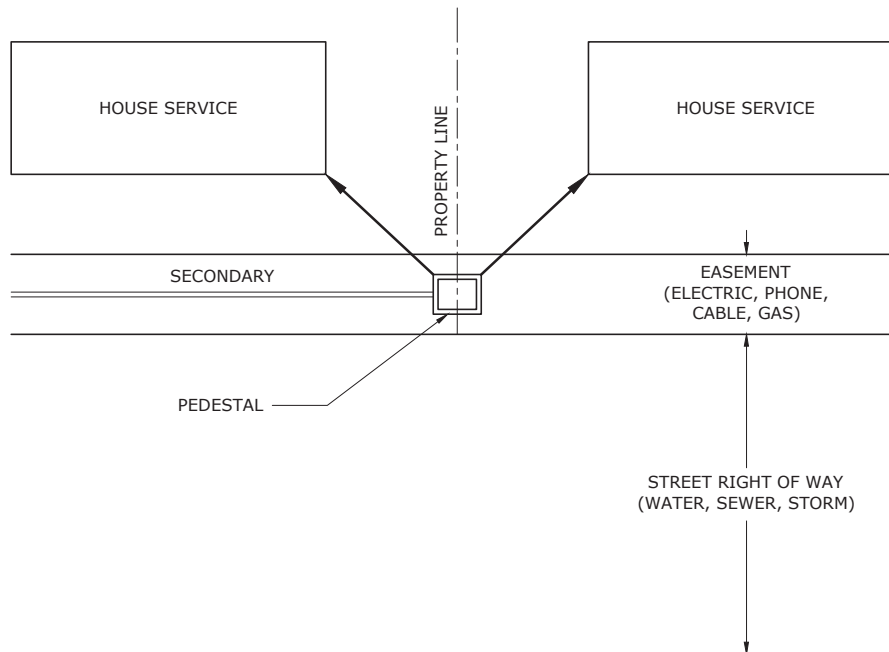
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- THERE SHALL BE NO ABOVE-GROUND OBSTRUCTIONS WITHIN TEN (10) FEET OF THE FRONT OF THE TRANSFORMER OR WITHIN THREE (3) FEET OF THE SIDES AND BACK. IF A METER IS INSTALLED ON THE TRANSFORMER, NO OBSTRUCTIONS MAY BE WITHIN FOUR (4) FEET OF THAT SIDE.
- SIDE VENTILATION MAY BE REQUIRED IF A WALL IS TO BE CONSTRUCTED AROUND THE TRANSFORMER. CONTACT DUKE ENERGY TO OBTAIN THE REQUIRED SEPARATION BETWEEN THE TRANSFORMER AND A WALL.
- THE GROUND UNDER THE PAD SHALL BE LEVEL AND THOROUGHLY COMPACTED.
- INSTALL CONDUITS FOR THE PRIMARY CABLE IN THE CENTER OF THE DESIGNATED PRIMARY CABLE AREA AS SHOWN ON DWG. 22.08-101I.
- CONDUITS FOR SECONDARY/SERVICE CABLES ARE TO BE CENTERED IN THE AREA SHOWN ON DWG. 22.08-101I. NO PART OF ANY CONDUIT MAY EXTEND OUTSIDE OF THE DIMENSIONS SHOWN.
- • PLACE THREE (3), FORTY (40) POUND BAGS OF CONCRETE AGAINST EACH 90° BEND CONTAINING PRIMARY CABLE AS SHOWN ON DWG. 22.08-101F TO PREVENT MOVEMENT DURING CABLE PULLING. DO NOT OPEN THE BAGS, JUST MAKE THREE CUTS ACROSS THE FRONT OF THE BAG TO ALLOW MOISTURE TO ENTER, AND PLACE THEM AGAINST THE BEND.
- ALL CONDUITS IN A PIT PAD SHALL EXTEND 6" ABOVE THE GRAVEL BED IN THE PIT.
- INSTALL PLUGS IN EACH CONDUIT TO KEEP SAND, RAIN, ETC. OUT OF THE CONDUITS. DO **NOT** GLUE THE PLUGS ONTO THE CONDUIT.

CONDUIT POSITIONING IN ABOVE-GRADE PEDESTALS

LOCATION OF ABOVE-GRADE PEDESTALS



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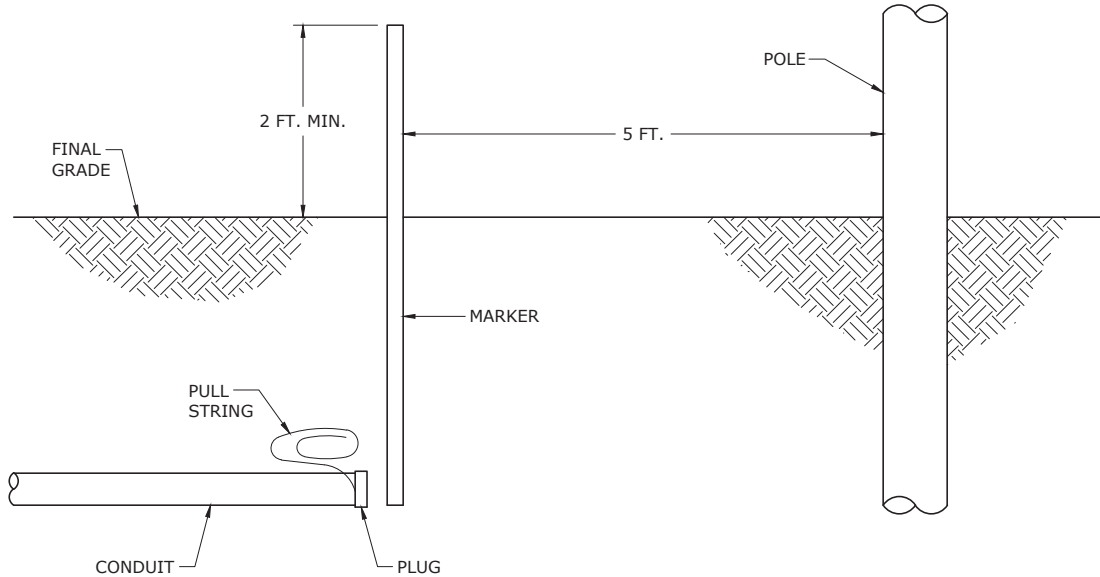


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CONDUIT POSITIONING AT RISERS

- DUKE ENERGY WILL STAKE THE EXACT LOCATION OF THE POLE RISER.
- STOP THE CONDUIT FIVE (5) FEET FROM THE POLE.
- A MINIMUM OF FIVE (5) FEET OF PULL STRING MUST EXTEND OUT OF THE CONDUIT AND BE PLACED IN A COIL AT THE END OF THE CONDUIT.
- PLACE A PLUG ON THE END OF THE CONDUIT BUT DO NOT CEMENT THIS PLUG TO THE BEND.
- PLACE A MARKER (A PIECE OF CONDUIT FOR EXAMPLE) AT THE END OF THE CONDUIT THAT WILL EXTEND ABOVE FINAL GRADE A MINIMUM OF TWO (2) FEET.

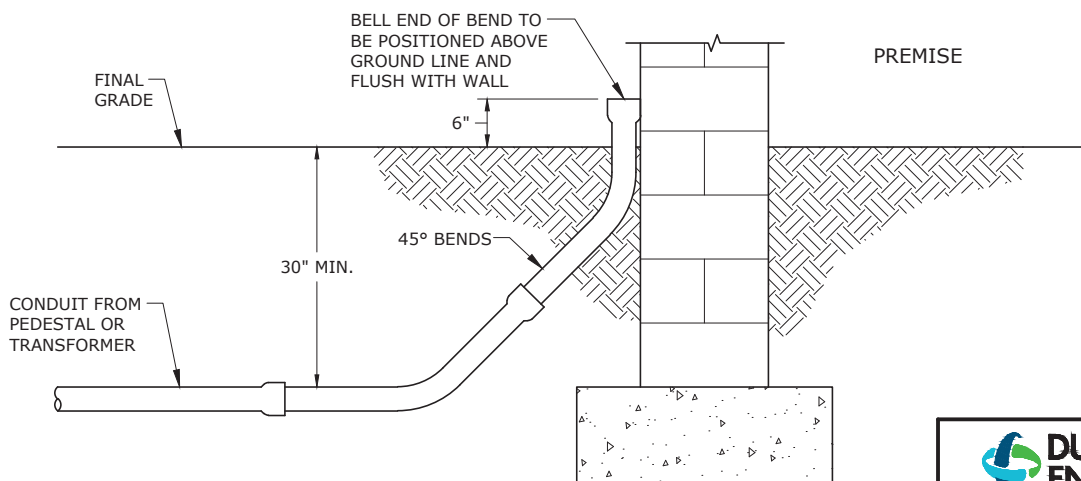
RISER POLE INSTALLATION



CONDUIT POSITIONING AT PREMISE RISERS

- THE TOP OF THE CONDUIT BEND MUST BE IN CONTACT WITH THE PREMISE.
- EXTEND CONDUIT SIX (6) INCHES ABOVE FINAL GRADE OF THE SOIL.
- THE PULL STRING MUST EXTEND A MINIMUM OF FOUR (4) FEET OUTSIDE OF THE CONDUIT.
- INSTALL A PLUG ON THE CONDUIT TO KEEP DIRT, RAIN, ETC. OUT OF THE CONDUIT. DO NOT GLUE THE PLUG ONTO THE CONDUIT.

PREMISE SERVICE RISER



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CUSTOMER GUIDE FOR INSTALLING CONDUIT

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CLEARANCES

SEPARATION MUST BE MAINTAINED BETWEEN CONDUITS INSTALLED FOR DUKE ENERGY AND OTHER CABLES, PIPES OR STRUCTURES AS SHOWN IN THE FOLLOWING TABLE AND DRAWINGS.

PRIMARY OR SECONDARY CABLES IN A CONDUIT SYSTEM			
PARALLELING	HORIZONTAL SEPARATION (IN)	CROSSING	VERTICAL SEPARATION (IN) (SEE NOTE 2)
COMMUNICATION LINES	12	COMMUNICATION LINES	12
WATER LINES	36	WATER LINES	12
SEWER LINES	36	SEWER LINES	12
FUEL LINES	36	FUEL LINES	12
STEAM LINES	60	STEAM LINES	36
CUSTOMER-OWNED CABLES	36	CUSTOMER-OWNED CABLES	12
IN-GROUND SWIMMING POOL	60	IN-GROUND SWIMMING POOL	N/A

NOTES:

1. THE HORIZONTAL AND VERTICAL SEPARATION SHOULD BE ADEQUATE TO PERMIT ACCESS AND MAINTENANCE OF EITHER FACILITY TO LIMIT DAMAGE TO THE OTHER. THE DISTANCES SHOWN IN THE TABLE ABOVE HAVE BEEN FOUND TO MEET THESE CRITERIA.
2. VERTICAL SEPARATION MUST BE SUFFICIENT TO LIMIT THE LIKELIHOOD OF DETRIMENTAL LOAD BEING TRANSFERRED TO EITHER OF THE UTILITIES OR STRUCTURES INVOLVED. THE DISTANCES SHOWN IN THE ABOVE TABLE HAVE BEEN FOUND TO MEET THESE CRITERIA.
3. CONTACT DUKE ENERGY WHEN DIMENSIONAL VARIANCES ARE REQUIRED.



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CUSTOMER GUIDE FOR INSTALLING CONDUIT

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CONDUIT POSITIONING IN PULLBOXES

PULLBOXES ARE BELOW-GRADE ENCLOSURES USED TO FACILITATE THE INSTALLATION OF CABLE IN CONDUIT SYSTEMS.

DUKE ENERGY WILL:

- PROVIDE AND INSTALL ALL REQUIRED PULLBOXES.
- STAKE THE LOCATION WHERE ALL PULLBOXES ARE TO BE INSTALLED.
- PROVIDE THE DIMENSIONS OF ALL PULLBOXES.
- IDENTIFY THE NUMBER, SIZE, LOCATION AND ORIENTATION OF ALL CONDUIT/BENDS ENTERING OR EXITING EACH PULLBOX.

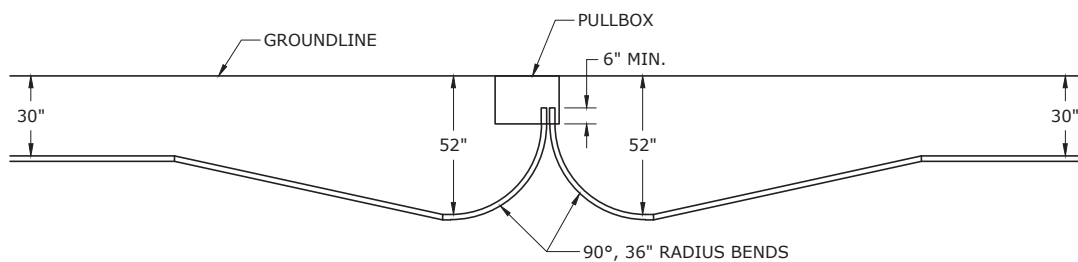
1. NON-CONCRETE PULLBOXES

DUKE ENERGY USES SEVERAL SIZES OF NON-CONCRETE PULLBOXES AS LISTED IN THE TABLES BELOW. LARGER SIZES, SUCH AS 4' X 8', ARE OCCASIONALLY ORDERED FOR PRIMARY CABLE APPLICATIONS. DUKE ENERGY WILL PROVIDE AND INSTALL ALL NON-CONCRETE PULLBOXES. THE CUSTOMER WILL TERMINATE THE CONDUIT SYSTEM AS REQUIRED BELOW SO DUKE ENERGY WILL BE ABLE TO INSTALL THESE PULLBOXES.

DUKE ENERGY CAROLINAS NON-CONCRETE PULLBOXES		
WIDTH (W)	LENGTH (L)	DEPTH (D)
11" ROUND	-	18"
13"	24"	18"
17"	30"	18"
24"	36"	18"
30"	60"	30"

DUKE ENERGY PROGRESS NON-CONCRETE PULLBOXES		
WIDTH (W)	LENGTH (L)	DEPTH (D)
11" ROUND	-	18"
13"	23"	15"
30"	48"	18"

- DUKE ENERGY WILL STAKE THE LOCATION OF EACH PULLBOX, IDENTIFY THE PULLBOX SIZE THAT WILL BE USED, AND PROVIDE THE NUMBER, SIZE, POSITION AND ORIENTATION OF EACH BEND THAT WILL BE INSTALLED IN THE PULLBOX.
- EXCAVATE AN AREA APPROXIMATELY TEN (10) INCHES GREATER THAN THE OUTSIDE LENGTH AND WIDTH OF THE PULLBOX BEING INSTALLED AND TO THE DEPTH OF THE PULLBOX. THE GROUND UNDER THE PULLBOX SHALL BE PARALLEL TO THE GROUNDLINE OUTSIDE THE PULLBOX AND THOROUGHLY COMPACTED.
- SLOPE THE DEPTH OF EACH CONDUIT CONTAINING SECONDARY/SERVICE CABLE THAT WILL ENTER OR LEAVE THE PULLBOX FROM THE NORMAL BURIAL DEPTH OF 30" TO A DEPTH OF 52" TO ALLOW BENDS TO BE PROPERLY POSITIONED BELOW THE PULLBOX. THIS SLOPE SHOULD BEGIN ABOUT TEN (10) FEET AWAY FROM THE PULLBOX. THE CONDUIT DOES NOT HAVE TO BE SLOPED WHEN INSTALLING PRIMARY CABLE IN THE 30" X 60" X 30" PULLBOX.



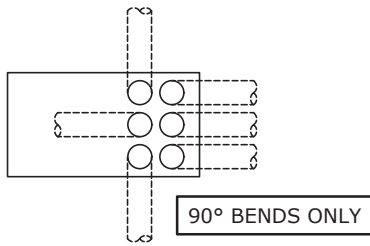
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REVISED	BY	CHK'D	APPR.	

CUSTOMER GUIDE FOR INSTALLING CONDUIT

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22.08-101M			

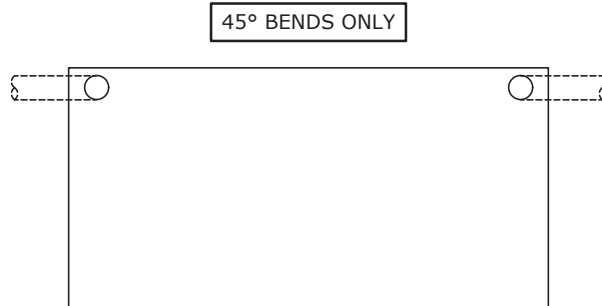
- INSTALL THE CONDUIT AND ALL REQUIRED BENDS WITH THE BENDS POSITIONED AND ORIENTED AS DESCRIBED BY THE DUKE ENERGY DESIGNER. THE TOP OF ALL BENDS MUST EXTEND SIX (6) INCHES ABOVE THE GROUNDLINE INSIDE THE PULLBOX. BENDS FOR SECONDARY/SERVICE CABLE WILL ALL BE POSITIONED ON ONE END OF THE PULLBOX. BENDS FOR PRIMARY CABLE WILL BE POSITIONED ON OPPOSITE ENDS OF ONE SIDE OF THE PULLBOX. 90° BENDS WILL BE USED FOR SECONDARY/SERVICE CABLES AND 45° BENDS WILL BE USED FOR PRIMARY CABLE.

POSITION OF BENDS FOR
SECONDARY/SERVICE CABLES



PLAN VIEW

BEND POSITION FOR
PRIMARY CABLES
30" X 60" PULLBOX ONLY



PLAN VIEW

THESE DRAWINGS ARE EXAMPLES OF ONE POSSIBLE APPLICATION.
REFER TO THE JOB DRAWING FOR ACTUAL INSTALLATIONS.

- WHEN MULTIPLE BENDS ARE POSITIONED TOGETHER, THEIR TOPS MUST BE FIRMLY BANDED TOGETHER IN THE PROPER CONFIGURATION.
- THE TOP OF EACH BEND IN THE PULLBOX MUST BE COLOR CODED AS DESCRIBED ON DWG. 22.08-101F.
- ● PLACE TWO, FORTY (40) POUND BAGS OF CONCRETE AGAINST EACH 90° BEND CONTAINING SECONDARY/SERVICE CABLE AND THREE, FORTY (40) POUND BAGS AGAINST EACH 90° BEND CONTAINING PRIMARY CABLE AS SHOWN ON DWG. 22.08-101F TO PREVENT MOVEMENT DURING CABLE PULLING. DO NOT OPEN THE BAGS, JUST MAKE THREE CUTS ACROSS THE FRONT OF THE BAG TO ALLOW MOISTURE TO ENTER.
- A SHORT PIECE OF CONDUIT, LONG ENOUGH TO REACH ONE (1) FOOT ABOVE GROUND, MUST BE ATTACHED TO EACH BEND IN THE PULLBOX. THESE PIECES OF CONDUIT MUST NOT BE CEMENTED TO THE BENDS. THE PULL STRING FOR EACH CONDUIT SEGMENT (TRANSFORMER TO PEDESTAL, PEDESTAL TO SERVICE RISER, ETC.) MUST PASS THROUGH THESE CONDUIT PIECES AND EXTEND A MINIMUM OF 36" BEYOND THEIR END. INSTALL A PLUG IN EACH CONDUIT TO KEEP SAND, RAIN, ETC. OUT OF THE CONDUIT. DO NOT CEMENT THESE PLUGS INTO THE CONDUIT.
- FILL THE HOLE WITH SOIL TO PREVENT THIS FROM BEING A SAFETY HAZARD. DUKE ENERGY WILL REMOVE THE SOIL WHEN THE PULLBOX IS INSTALLED.

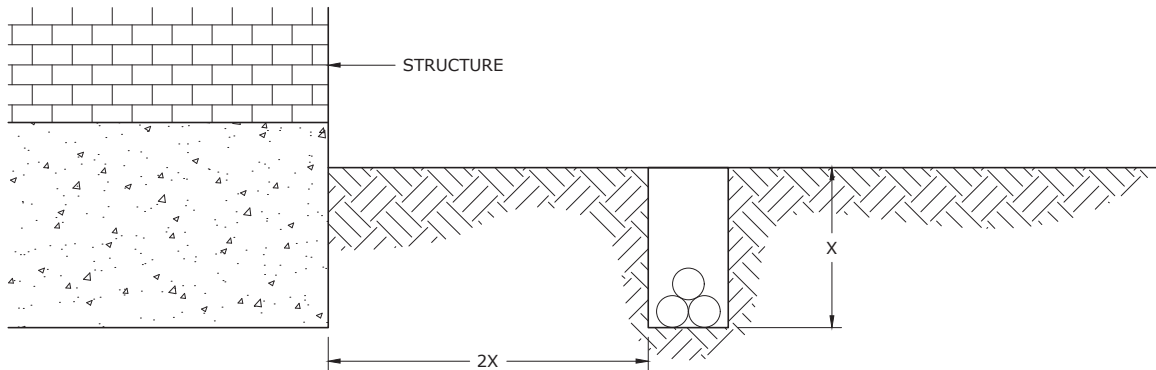


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CUSTOMER GUIDE FOR INSTALLING CONDUIT

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INSTALLING UNDERGROUND CABLES PARALLEL TO STRUCTURES



NOTES:

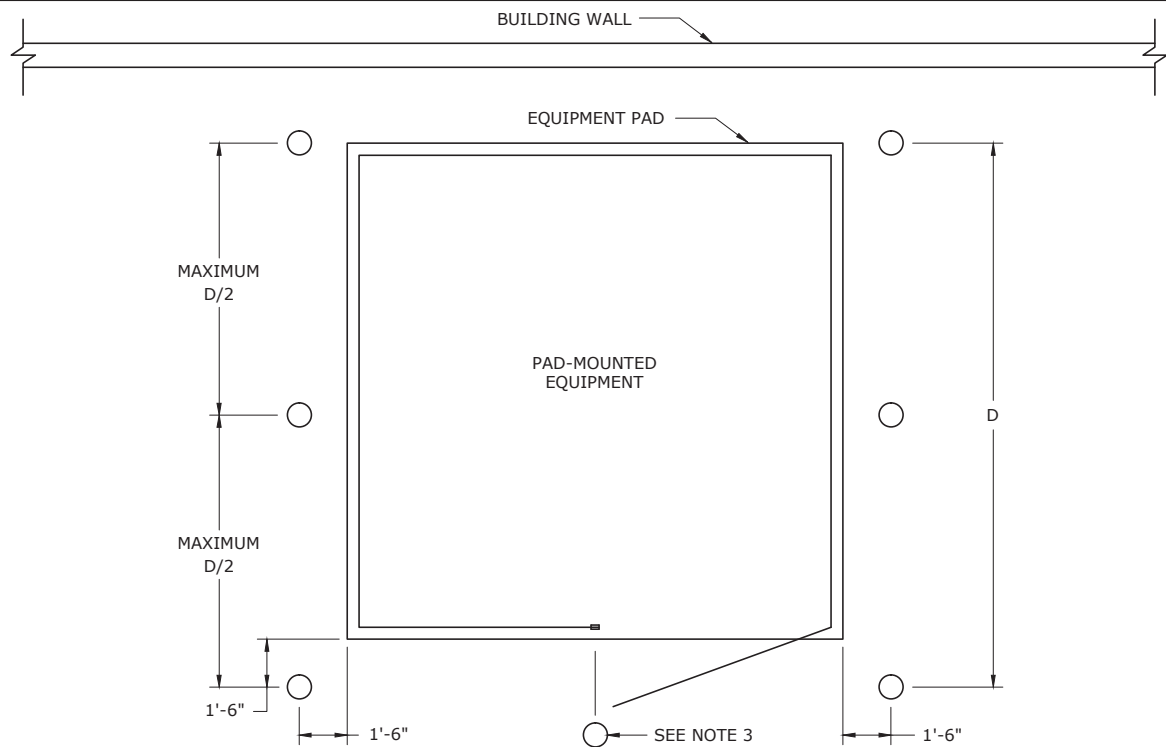
1. WHEN INSTALLING UNDERGROUND CABLE PARALLEL TO EXISTING STRUCTURES, OR THOSE THAT ARE UNDER CONSTRUCTION, IT IS NECESSARY TO MAINTAIN ADEQUATE CLEARANCE FROM THOSE STRUCTURES. THIS CLEARANCE IS NECESSARY TO MAINTAIN THE INTEGRITY OF THE SOIL, AND THE SUPPORT PROVIDED BY THE SOIL, UNDER THE FOUNDATION OF THE STRUCTURE.
2. UNDERGROUND FACILITIES INSTALLED PARALLEL TO A STRUCTURE SHOULD BE LOCATED AT LEAST TWICE AS FAR AWAY FROM THE STRUCTURE AS THE DEPTH OF THE TRENCH THAT IS DUG. FOR EXAMPLE, IF A TRENCH IS TO BE TWO (2) FEET DEEP, THEN THE TRENCH MUST BE LOCATED AT LEAST FOUR (4) FEET AWAY FROM THE STRUCTURE.
3. THIS REQUIREMENT DOES NOT APPLY TO CABLE THAT IS NOT INSTALLED PARALLEL TO A STRUCTURE.
4. ON INSTALLATIONS WHERE THE CABLE CANNOT BE INSTALLED TWICE AS FAR FROM THE FOUNDATION AS THE CABLE IS DEEP, THE SOIL MUST BE COMPACTED THROUGHOUT THE ENTIRE TRENCH DEPTH TO 100% OF THE ORIGINAL SOIL DENSITY IN ALL AREAS WHERE ADEQUATE SEPARATION CANNOT BE OBTAINED FROM THE FOUNDATION.



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CUSTOMER GUIDE FOR INSTALLING CONDUIT

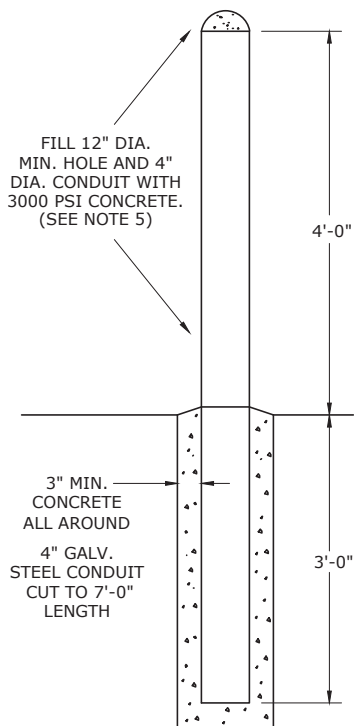
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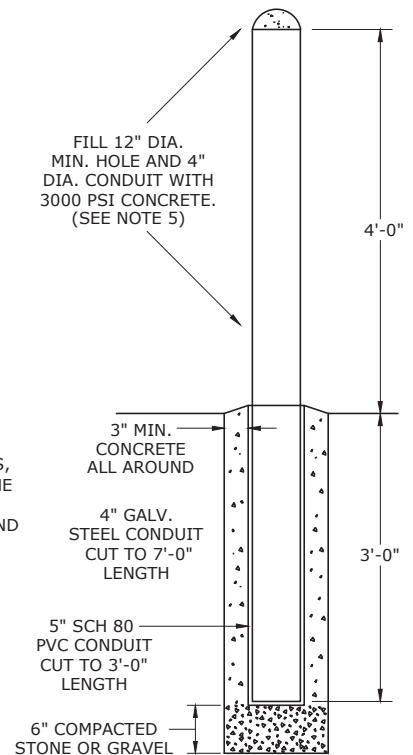
PLAN VIEW

NOTES:

1. PROTECTIVE POLES CAN BE INSTALLED ON ALL SIDES OF PAD-MOUNTED EQUIPMENT THAT ARE SUBJECT TO REGULAR VEHICLE TRAFFIC. THEIR USE IS AT THE DISCRETION OF LOCAL ENGINEERING AND WILL BE THE CUSTOMER'S RESPONSIBILITY TO PROVIDE AND INSTALL AFTER ALL REASONABLE EFFORTS TO LOCATE THE PAD-MOUNTED EQUIPMENT ELSEWHERE HAVE BEEN EXHAUSTED.
2. POLES SHOULD BE EVENLY SPACED ALONG THE SIDES OF THE PAD-MOUNTED EQUIPMENT, NO WIDER THAN HALF THE DIMENSION OF THE SIDE THEY ARE PROTECTING. EXCEPTIONS TO THIS ALONG SIDES WITH DOORS ARE ALLOWED IN ORDER TO ACCOMMODATE NOTE 3.
3. ON ANY SIDE OF PAD-MOUNTED EQUIPMENT WITH DOORS, THIS POLE SHOULD BE CENTRALLY LOCATED BETWEEN THE DOORS AND MUST ACCOMMODATE THE DOOR SWING OF THE EQUIPMENT. IT SHALL BE EITHER REMOVABLE BY HAND OR COLLAPSIBLE. REMOVABLE OR COLLAPSIBLE DESIGNS OTHER THAN WHAT ARE SHOWN MUST BE APPROVED BY LOCAL ENGINEERING.
4. POLES LOCATED ON ANY SIDE OF PAD-MOUNTED EQUIPMENT SHALL NOT INTERFERE WITH THE SAFE OPERATION AND EXPECTED MAINTENANCE OR REPLACEMENT OF THAT EQUIPMENT.
5. POLES SHALL BE PAINTED YELLOW OR OUTFITTED WITH A YELLOW BOLLARD COVER OR POST SLEEVE.
6. ALL POLES SHALL HAVE A 2" REFLECTIVE TAPE APPLIED EITHER AROUND THE TOP OF THE BOLLARD OR EXTENDING VERTICALLY DOWN THE LENGTH OF THE BOLLARD FOR 24". VERTICAL APPLICATIONS MUST BE ON THE SIDE FACING ANY ANTICIPATED TRAFFIC.



STANDARD POLE



REMOVABLE POLE

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PROTECTIVE POLES FOR PAD-MOUNTED EQUIPMENT



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X	X	X	X

36.01-105

CHECKLIST FOR CUSTOMER-INSTALLED CONDUIT SYSTEMS

THIS CHECKLIST IS TO BE USED BY CUSTOMERS WHO INSTALL CONDUIT SYSTEMS FOR DUKE ENERGY. PLEASE ENSURE ALL ITEMS HAVE BEEN FULLY VERIFIED. AFTER VERIFICATION, SEND A COPY OF THE COMPLETED CHECKLIST, ALONG WITH THE DUKE ENERGY SITE READINESS CHECKLIST TO THE DUKE DESIGNER/CUSTOMER PROJECT COORDINATOR/CONSTRUCTION COORDINATOR BY EMAIL.

PROJECT DETAILS:

PROJECT NAME: _____ TYPE OF PROJECT: _____
 DEVELOPER NAME/COMPANY: _____ DUKE DESIGNER'S NAME: _____
 CONDUIT INSTALLER'S NAME: _____ WORK ORDER #: _____
 COMPANY INSTALLER WORKS FOR: _____

- ☐ A PRE-CONSTRUCTION MEETING WITH THE CUSTOMER'S CONTRACTOR AND A DUKE ENERGY REPRESENTATIVE WAS HELD PRIOR TO BEGINNING THE CONDUIT INSTALLATION.
- ☐ ALL CONDUIT SEGMENTS ARE INSTALLED WITHIN THE MIDDLE THIRD OF THE WIDTH OF THE DUKE ENERGY RIGHT-OF-WAY EASEMENT.
- ☐ ALL STUB-UPS FOR TRANSFORMERS, PEDESTALS, PULLBOXES, SWITCHGEAR, RISERS, ETC. ARE INSTALLED WHERE INDICATED BY DUKE ENERGY.
- ☐ PROPER SEPARATION, AS INDICATED IN THIS DOCUMENT, BETWEEN DUKE ENERGY CONDUITS AND WATER LINES, COMMUNICATION LINES, SEWER LINES, CUSTOMER-OWNED CABLES, SWIMMING POOLS, STRUCTURES, ETC. HAVE BEEN PROVIDED.
- ☐ THE TRENCH DEPTHS AND CONDUIT SEPARATION THROUGHOUT THE ENTIRE PROJECT COMPLY WITH THE REQUIREMENTS PROVIDED IN THIS DOCUMENT.
- ☐ NO OTHER UTILITIES OR FACILITIES OF ANY TYPE ARE INSTALLED IN THE SAME TRENCH, AND PARALLEL TO THE CONDUIT FOR DUKE ENERGY, EXCEPT WHEN DUKE ENERGY AND OTHER UTILITIES HAVE AGREED TO USE A COMMON INSTALLER AND SPECIFIED SEPARATION IS MAINTAINED BETWEEN THE CONDUITS.
- ☐ THE BOTTOM OF THE TRENCH IS SMOOTH AND FREE OF ROCKS, CONSTRUCTION DEBRIS OR ANY OTHER HARD OBJECT, OR SIX (6) INCHES OF CLEAN BACKFILL WAS APPLIED TO COVER ANY ITEMS THAT COULD NOT BE REMOVED.
- ☐ TRENCH WAS BACKFILLED WITH SOIL THAT IS FREE OF ROCKS, CONSTRUCTION DEBRIS OR OTHER HARD OBJECTS AND BACKFILL IS COMPACTED TO THE FIRMNESS OF UNDISTURBED SOIL.
- ☐ TRENCH HAS NOT SETTLED OR WASHED OUT.
- ☐ PVC CONDUIT AND CONDUIT FITTINGS ARE SCHEDULE 40 OR GREATER, RATED FOR 90°C ELECTRICAL CABLE, UL LISTED, GRAY IN COLOR WITH AN INTEGRAL BELL ON ONE END.
- ☐ HDPE CONDUIT IS SDR 13.5 OR GREATER, RATED FOR USE WITH 90°C ELECTRICAL CABLE, AND BLACK WITH EITHER 3 OR 4 RED STRIPES OR TOTALLY RED.
- ☐ HDPE CONDUIT IS CONNECTED TO PVC FITTINGS OR ITSELF WITH SHUR LOCK II COUPLINGS, BONDUIT ADHESIVE OR MOR CLAMP COUPLINGS.
- ☐ ALL 6" BENDS HAVE A 48" MINIMUM RADIUS AND ALL OTHER BENDS HAVE A 36" MINIMUM RADIUS. ALL BENDS HAVE AN INTEGRAL BEND ON ONE END.
- ☐ ALL COUPLINGS HAVE A CENTER STOP.
- ☐ ALL CONDUITS ARE PROPERLY SIZED ACCORDING TO THE REQUIREMENTS PROVIDED IN THIS DOCUMENT AND AS SPECIFIED BY THE CONDUIT DESIGN PROVIDED BY DUKE ENERGY.
- ☐ ALL CONDUIT PIECES AND FITTINGS WERE EXAMINED FOR SHARP EDGES, OUT-OF-ROUND SHAPE, CRACKS, CHIPS, BURRS OR ANY DEFECT THAT WOULD DAMAGE THE CABLE WHEN IT IS PULLED INTO POSITION. NO PIECES WITH DEFECTS WERE INSTALLED AND ALL SHARP EDGES WERE REMOVED.
- ☐ ALL MATING SURFACES OF CONDUIT AND CONDUIT FITTINGS WERE PROPERLY CLEANED, FULLY SEATED AND CEMENTED TOGETHER.
- ☐ ALL CONDUIT IS LAYING FLAT ON THE BOTTOM OF THE TRENCH.
- ☐ STUB-UPS ARE Banded TOGETHER WHEN MULTIPLE STUB-UPS ARE INSTALLED IN THE SAME ZONE WHERE TRANSFORMERS, PEDESTALS, PULLBOXES, SWITCHGEAR, ETC. WILL BE PLACED.
- ☐ MULTIPLE STUB-UPS WERE INSTALLED IN THE PROPER CONFIGURATION AND WITHIN THE MAXIMUM DIMENSIONS PROVIDED IN THIS DOCUMENT.
- ☐ ALL STUB-UPS ARE PROPERLY POSITIONED WITHIN TRANSFORMERS, PEDESTALS, PULLBOXES, SWITCHGEAR, ETC. AS SHOWN IN THIS DOCUMENT.
- ☐ STUB-UPS ARE POSITIONED WITHIN TRANSFORMERS, PEDESTALS, PULLBOXES, SWITCHGEAR, ETC. TO ALLOW THE EQUIPMENT TO FACE THE DIRECTION SPECIFIED BY DUKE ENERGY.
- ☐ ALL STUB-UPS WITHIN TRANSFORMERS, PEDESTALS, PULLBOXES, SWITCHGEAR, RISERS, ETC. ARE INSTALLED TO THE PROPER HEIGHT ABOVE GROUND LEVEL AS IDENTIFIED IN THIS DOCUMENT.



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CUSTOMER GUIDE FOR INSTALLING CONDUIT- CHECKLIST

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22.08-101R			

CHECKLIST FOR CUSTOMER-INSTALLED CONDUIT SYSTEMS (CONT.)

WORK ORDER #: _____

- ☐ ALL SERVICE RISERS ARE IN CONTACT WITH THE STRUCTURE/WALL.
- ☐ ALL CONDUITS FOR POLE RISERS STOP AT THE DESIGNATED DISTANCE FROM THE POLE AND ARE TERMINATED IN ACCORDANCE WITH DWG. 22.08-101K.
- ☐ BAGS OF CONCRETE WERE PROPERLY PLACED AGAINST ALL BENDS.
- ☒ ALL CONDUITS WERE JOINED TOGETHER AND A SINGLE PULL STRING INSTALLED THROUGHOUT EVERY CONDUIT SEGMENT (TRANSFORMER TO TRANSFORMER, TRANSFORMER TO PEDESTAL, SWITCHGEAR TO TRANSFORMER, ETC.) AND PULL STRINGS EXTEND AT LEAST 36" OUTSIDE OF EACH STUB-UP.
- ☐ THE CUSTOMER CONTACTED DUKE ENERGY FOR INSPECTION DURING THE MANDREL TEST(S).
- ☐ A SOLID MANDREL, NO MORE THAN 1/2" SMALLER THAN THE INSIDE DIAMETER OF THE CONDUIT, WAS PULLED THROUGH EVERY CABLE SEGMENT AND ALL NECESSARY REPAIRS WERE MADE.
- ☐ PULL STRINGS ARE MADE FROM A MATERIAL THAT WILL NOT ROT.
- ☐ PULL STRINGS ARE PLACED IN ALL CONDUIT SEGMENTS (TRANSFORMER TO TRANSFORMER, TRANSFORMER TO PEDESTAL, PEDESTAL TO PREMISE, ETC.) AND THE PULL STRING EXTENDS AT LEAST TWELVE (12) INCHES OUTSIDE OF THE STUB-UP.
- ☐ ALL PULL STRINGS WERE TESTED TO VERIFY THEY WERE NOT GLUED TO ANY SECTIONS OF CONDUIT OR CONDUIT FITTINGS. WHEN ISSUES WERE FOUND, THE ORIGINAL PULL STRINGS WERE CUT OFF SLIGHTLY BELOW THE TOP OF THE STUB-UPS AND NEW PULL STRINGS WERE INSTALLED.
- ☐ EVERY CONDUIT SEGMENT IS COLOR CODED OR LABELED ON BOTH ENDS.
- ☐ THE ENDS OF ALL CONDUIT SEGMENTS ARE CAPPED AND THE CAPS ARE NOT GLUED TO THE CONDUIT OR BENDS.
- ☐ NO DIRT, DEBRIS, WATER OR OTHER FOREIGN MATTER IS PRESENT IN ANY CONDUIT SEGMENT.
- ☐ NO OTHER UTILITY OR FACILITIES OF ANY TYPE ARE INSTALLED IN THE CONDUIT SEGMENTS INSTALLED FOR DUKE ENERGY.
- ☐ THERE ARE NO ABOVE-GROUND OBSTRUCTIONS AROUND TRANSFORMERS, SWITCHGEAR, PEDESTALS, ETC. AS SPECIFIED IN THIS DOCUMENT.
- ☐ PROPER VENTILATION AND CLEARANCE IS PROVIDED FOR TRANSFORMERS WHEN A WALL WILL BE INSTALLED AROUND A TRANSFORMER.
- ☐ THE MANDREL TEST DESCRIBED ON DWG. 22.08-101F WAS PERFORMED ON ALL CONDUIT SEGMENTS. DUKE ENERGY WAS NOTIFIED PRIOR TO THIS TEST TO ALLOW THEM TO OBSERVE THE TEST.
- ☐ THE ENTIRE CONDUIT SYSTEM HAS BEEN INSPECTED AND ALL INSTANCES OF NON-COMPLIANCE WITH THIS DOCUMENT HAVE BEEN CORRECTED.

DATE OF INSPECTION: _____

INSPECTOR FOR CUSTOMER (NAME & CELL PHONE): _____

DUKE ENERGY INSPECTOR (NAME & CELL PHONE): _____

DATE OF FOLLOW-UP INSPECTION (IF APPLICABLE): _____

LIST OF ISSUES/CONCERNS: (DOCUMENT ALL ISSUES THAT MUST BE RESOLVED AND THE OWNER OF EACH ISSUE.)



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REVISED	BY	CHK'D	APPR.	

CUSTOMER GUIDE FOR INSTALLING CONDUIT- CHECKLIST

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22.08-101S

END OF PROJECT MANUAL