



CITY OF SOUTH SALT LAKE

700 EAST WELL CATHODIC PROTECTION SYSTEM

SPECIFICATIONS

CITY OF SOUTH SALT LAKE
South Salt Lake City, Utah

SPECIFICATIONS

FOR

SOUTH SALT LAKE CITY 700 EAST WELL – CATHODIC PROTECTION SYSTEM



PREPARED BY

HANSEN, ALLEN & LUCE, INC.
&
INFINITY CORROSION GROUP INC.
for
The City of South Salt Lake

August 2024

CITY OF SOUTH SALT LAKE
South Salt Lake City, Utah

SPECIFICATIONS

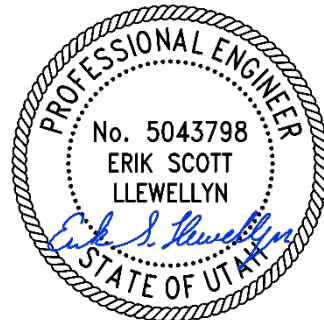
FOR

**SOUTH SALT LAKE CITY 700 EAST WELL – CATHODIC PROTECTION
SYSTEM**

Certification:

I hereby certify that I prepared the Project Plans and Specifications in the Contract Document or under my direct supervision and that I am a duly registered Engineer under the laws of the State of Utah.


Erik S. Llewellyn P.E.



August 22, 2024

PREPARED BY

HANSEN, ALLEN & LUCE, INC.
&
INFINITY CORROSION GROUP INC.
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The City of South Salt Lake

August 2024

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REFERENCE DRAWINGS

1. City of South Salt Lake, 700 East Well, Cathodic Protection System Design Project, Sheets 1 through 5. Infinity Corrosion Group (August 2024)

END OF DRAWING LIST

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BIDDING REQUIREMENTS

DOCUMENT 00 10 00

INVITATION TO BID

PART 1 GENERAL

1.1 CONSTRUCTION CONTRACT

A. Bidders are invited to bid on Construction Contract known as South Salt Lake City 700 East Well – Cathodic Protection System.

B. The location of the work is:

Bid Schedule – covers work on SSLC 700 East Well mobilization, Cathodic Protection System - deep well anode system, rectifier, and associated equipment, and demobilization.

C. The work to be performed consists of furnishing and installing the equipment, facilities, services and appurtenances thereto as included in the Contract Documents. The Work generally includes, but is not limited to, the following: mobilization, Cathodic Protection System SSLC 700 East Well – deep well anode system, rectifier, and associated equipment, and demobilization

D. For information about the award of this Construction Contract, contact Jason Taylor at 801-657-1595.

1.2 BID LOCATION AND OPENING

A. Bids must be submitted through the Utah Public Procurement Place website (SciQuest) by 2:00 PM on 09/12/2024. Bids received after 2:00 PM. will not be accepted. Bids will be publicly opened and read by the OWNER at 2:30PM at the City Council Chambers located on the second floor of 220 East Morris Ave. South Salt Lake City, Utah 84115 The apparent low bidder will be notified by 5 p.m. on 09/20/2024.

1.3 BID SECURITY

A. Bid security in the amount of 5.0 percent of the Bid must accompany each Bid in accordance with the Instructions to Bidders. Bid Security will be returned to each unsuccessful Bidder after tabulation and award of the Construction Contract.

1.4 PRE-BID CONFERENCE

[No pre-bid conference will be held for this project.]

1.5 BASIS OF BIDS

- A. Bids shall be on a unit price basis. Unsealed or segregated Bids will not be accepted.

1.6 CONTRACT TIME

- A. The CONTRACTOR shall begin work on a date mutually agreed upon by the CONTRACTOR, and the Owner, but no later than the dates shown below for each bid schedule. One construction work is started on a bid schedule/segment, the CONTRACTOR shall complete all work related to that bid schedule within the number of calendar days shown.
- B. **Bid Schedule A** – covers work on SSLC 700 East Well mobilization, Cathodic Protection System - deep well anode system, rectifier, and associated equipment, and demobilization.
 - 1. Begin work no later than 10/01/2024, and complete work within 60 calendar days of the first day of construction for work on this bid schedule.

1.7 EXAMINATION AND PROCUREMENT OF DOCUMENTS

- A. Complete sets of Contract Documents may be available at Sciquest.

1.8 RIGHT TO REJECT BIDS

- A. The OWNER reserves the right to reject any or all bids or to waive any informality or technicality in any bid if deemed to be in the best interest of the OWNER.

1.9 VALIDITY PERIOD FOR BIDS

- A. Bids shall remain valid for 45 days after the day of Bid opening. Bidders, who withdraw their bid after Bid opening, but before expiration of said period, shall forfeit their bid security if Notice of Intent to Award to the successful Bidder is made by OWNER.

1.10 GOVERNING LAWS AND REGULATIONS

- A. This project is not federally funded and does not require the payment of specific wage rates. Payroll submittal will not be required.
- B. Bidders on this Work will be subject to the applicable provisions of all federal rules, laws and regulations or orders.
- C. In compliance with Americans with Disabilities Act, (ADA) the following information is provided: FAX Number 801-483-6060, TDD Number 801-657-1595, Contact person: Jason Taylor.

END OF DOCUMENT

DOCUMENT 00 20 00

INSTRUCTIONS TO BIDDERS

PART 1 GENERAL

1.1 DESCRIPTION OF THE WORK

- A. The Work to be performed consists of furnishing and installing the equipment, facilities, services, and appurtenances thereto as included in the Contract Documents. A general description of the Work is set forth in the Invitation to Bid (Document 00 10 00).

1.2 COPIES OF BID DOCUMENTS

- A. Bidders must use complete sets of Bid Documents in preparing Bids. OWNER maintains a complete set on file at the address set forth in the Notice to Bidders, and bidders may review the file copy upon request during regular business hours. Bidders are solely responsible to verify whether their sets of Bid Documents are complete.
- B. Bid Documents are made available to bidders only for the purpose of obtaining Bids on the Work. No license or grant for any other use is given.
- C. Bidding Document copyrights shall remain with the OWNER.

1.3 PRE-BID CONFERENCE

- A. If a pre-bid conference is held, the time, place and nature of the conference will be stated in the Invitation to Bid (Document 00 10 00). Representatives of OWNER and ENGINEER will be present to discuss the Project. The OWNER shall not be bound by any statements, representations, conclusions, or assumptions made by any party, whether oral or written, except for written statements that are issued in an Addendum or through SciQuest by the ENGINEER to all prospective bidders.

1.4 PHYSICAL CONDITIONS

- A. **In General:** Prior to submitting a Bid, each Bidder is responsible to review all available explorations, tests and data concerning surface conditions, subsurface conditions and Underground Facilities at or contiguous to the site, or otherwise, which may affect cost, progress, performance or furnishing of the Work in accordance with the time, price and other terms and conditions of the Contract Documents.
- B. **Underground Facilities:** Information and data indicated in the Contract Documents regarding Underground Facilities at or contiguous to the site is based upon information and data furnished to OWNER and ENGINEER by owners of such Underground

Facilities. The OWNER does not assume responsibility for the accuracy or completeness thereof other than as provided in paragraph 4.3A.2 of the General Conditions or unless expressly provided in the Modifications to General Conditions (Document 00 72 00).

- C. **Additional Explorations and Tests:** If feasible as determined by OWNER, the OWNER will provide each Bidder access to the site to conduct any explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall obtain all required permits, fill all holes, clean up and restore the site to its former condition upon completion of such explorations. By requesting such an exploration or test, Bidder agrees to release, indemnify, defend, and save the OWNER harmless from all costs damages and liabilities of any kind whatsoever, including reasonable attorneys' fees, which may arise in connection with or as a result of the performance of such explorations or tests.

1.5 COMPENSATION AND QUANTITIES

- A. **In General:** The bid price for any lump sum or unit price contract includes all labor, materials, and incidental work to fully complete the Work in a satisfactory manner under the terms of the Contract Documents. Bidders are responsible to inform themselves of the character of the Work to be performed.
- B. **Lump Sum Work:** If the Work is to be paid for on a lump sum basis, the lump sum will be the only sum paid.
- C. **Unit Price Work:** If any portion of the Work is to be paid for on a unit price basis, payment will cover only work actually performed and materials actually supplied at the unit prices bid and on the terms set forth in the Contract Documents, irrespective of any quantity approximations in the Bid Documents. Any quantity approximations in the Bid Documents are stated as a basis for determining bids, and do not fix the amount of Work to be done or materials to be furnished. Stated quantities are estimates for the purpose of doing the class of work required. Actual quantities will vary. The OWNER may deviate in either direction from any indicated quantities. The Bidder shall have no claim for any variation in quantity, except to the extent permitted in the General Conditions.

1.6 EXAMINATION OF SITE AND CONTRACT DOCUMENTS

- A. **In General:** The OWNER shall not be bound by any statements, representations, conclusions, or assumptions made by any party, whether oral or written, except for written statements that are issued in an Addendum.
- B. **Access:** The Contract Documents designate the site for performance of the Work. Bidder is responsible to investigate the site and understand all access requirements. All additional off site lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Bidder.

C. **Bidder's Obligations:** In addition to Bidder's other responsibilities and obligations in connection with submitting a Bid, it is the responsibility of the Bidder before submitting a Bid, to:

1. Examine the Contract Documents thoroughly;
2. Visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the Work;
3. Investigate all applicable construction and labor conditions, quantities, and the character of the Work as they affect cost, progress, performance, or furnishing of the Work;
4. Consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work;
5. Study and carefully correlate Bidder's observations with the Contract Documents;
6. Attend any pre-bid conference, which shall be mandatory if so designated in the Notice to Bidders;
7. Review all available explorations and data concerning surface and subsurface conditions as set forth in Section 1.4 above; and
8. Identify and notify ENGINEER in writing in the manner set forth in article 2.1 below of all specific conflicts, omissions, errors, or discrepancies in the Contract Documents, or if Bidder doubts their meanings.

The failure or omission of any Bidder to take any of the foregoing actions shall not in any way relieve Bidder of its Bid, or its obligation to furnish all material, equipment, labor and services necessary to carry out the provisions of the Contract Documents and to complete the contemplated Work for the consideration set forth in its Bid. Submission of a Bid shall constitute prima facie evidence of compliance with these instructions.

D. **Deviations from the Terms of the Contract Documents:** OWNER will not accept any deviations whatsoever from the printed terms of the Agreement and the Contract Documents, except by Addendum or Change Order.

1.7 EFFECT OF SUBMITTING A BID.

A. Bidders are responsible to carefully examine the Contract Documents, visit the site, and fully inform themselves so as to include in the Bid a sum to cover the cost of all items. Bidder's failure or omission to receive or examine any form, instrument, addendum or other document, visit the site and become acquainted with existing conditions, or attend

any pre-Bid Conference, shall in no way relieve Bidder from any obligations with respect to Bidder's Bid or the Construction Contract.

- B. By submitting a Bid, Bidder represents that Bidder has complied with all requirements of the Bid Documents; that the Bid is premised on properly performing and furnishing the Work required by the Contract Documents within the times specified; that the Bidder is informed of the conditions to be encountered and the character, quality and quantities of the Work; and that the Bidder believes the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- C. Submission of a Bid constitutes a promise that the Bidder will enter the Contract Documents in the form presented in the Contract Documents. Bidders should carefully examine all Contract Documents, including the required Bonds and insurance to be provided by the Bidder.
 - 1. The Performance Bond is a guarantee of faithful performance of the requirements of the Contract Documents, including all applicable warranties. The Payment Bond is a guarantee of payment of all labor, materials, or supplies used directly or indirectly in the prosecution of the Work provided in the Construction Documents.
 - 2. The sum of the Performance Bond and the Payment Bond shall be increased or decreased during the course of the Work in the event that Contract Modifications, Change Orders or Addenda increase or decrease the total contract price. The sum of each bond shall be in an amount equal to the completed contract price at the completion of the Work.
 - 3. OWNER does not provide any release of Performance Bonds or Payment Bonds. The bonds are in effect throughout all periods during which a suit may be brought under the provisions of applicable law.
- D. By submitting a Bid, Bidder represents that the matters stated therein are true and correct.

PART 2 BIDDING PROCEDURES

2.1 INTERPRETATIONS AND ADDENDA

- A. All requests for interpretation of the Contract Documents shall be made in writing and delivered to the ENGINEER no later than four (4) calendar days prior to opening of Bids. In the ENGINEER's discretion, ENGINEER will send the written interpretation to all persons receiving a set of Bid Documents in the form of an Addendum. If the ENGINEER does not respond to a Bidder's request for interpretation the Bidder shall comply with the intent and terms of the Contract Documents.

- B. No oral interpretations shall be made to any Bidder. The OWNER shall not be responsible for or bound by any statements, interpretations, explanations, representations, conclusions or assumptions made by any party, whether oral or written, except for written statements that are issued in an Addendum by the ENGINEER to all prospective bidders.
- C. Each statement made in an Addendum is part of the Contract Documents at the location designated in the Addendum. A statement issued in an Addendum shall have the effect of modifying a portion of the Bid Documents when the statement in the Addendum specifies a particular section, paragraph or text and states that it is to be so modified. Only the specified section, paragraph or text shall be so modified, and all other portions of the Bid Documents shall remain in effect.
- D. Bidders shall sign to acknowledge their receipt of all Addenda issued. Bidders shall also acknowledge receipt of all Addenda in the space provided in the Bid (Document 00 40 00).
- E. Except to postpone the Bid opening, no Addenda shall be issued within 48 hours of the Bid opening.

2.2 EQUIPMENT AND MATERIAL OPTIONS PRIOR TO BID OPENING

- A. If a Bidder or Supplier wishes to supply a product other than that identified in the Contract Documents, said Bidder or Supplier shall submit a written request for approval to the ENGINEER at least ten (10) calendar days prior to the date set for opening of bids.
- B. The procedure for submission of any such product option shall be as set forth in Article 6.4 of the General Conditions. It is the sole responsibility of the Bidder or Supplier to submit complete descriptive and technical information so that ENGINEER can make a proper appraisal.
- C. ENGINEER's failure to act upon such a request within five (5) days after receipt shall be deemed a denial thereof.
- D. Any such approval is at the sole discretion of the ENGINEER and will be in the form of an Addendum issued to all Bidder's holding Bid Documents indicating that the additional equipment or materials are approved as equal to those specified for the Project.
- E. The Construction Contract, if awarded, will be on the basis of materials and equipment specified in the Drawings and Specifications and any changes permitted in any Addenda.

2.3 BID SECURITY

- A. **Amount of Bid Security:** A Bid Security must accompany each Bid. The total amount of the Bid on which Bid security is to be based shall be the sum of all items of the Bid constituting the maximum amount of the possible award to the Bidder. The Bid Security

amount must equal at least five (5) percent of the total amount of the Bid.

- B. **Form of Bid Security:** The Bid Security may be in the form of a certified check, cashier's check, cash, or Bid Bond. No other form of Bid Security will be accepted. A Bid Bond must be issued by a licensed Utah agency on behalf of a surety company licensed to do business in the State of Utah. A cashier's check must be drawn on a bank doing business in the State of Utah and made payable to OWNER. If a cashier's check is used in lieu of a Bid Bond, or if the Bid Bond does not specifically so provide, a certificate from an approved surety company guaranteeing execution of performance and payment bonds in the full amount of the bid must accompany the bid.
- C. **Purpose of Submission.** By submitting a Bid Security Bidder assures OWNER it will take all steps necessary to properly execute the Contract Documents.
- D. **Return of Bid Security:** OWNER will return Bid securities to Bidder after award of the Construction Contract. Bid Bonds of all Bidders will be held until the Construction Contract is awarded or all bids have been rejected. The liability of OWNER in regards to the checks shall be limited only to the return of the checks.
- E. **Default:** In the event of failure or refusal of the Bidder to enter into the Construction Contract and the delivery to the OWNER a Performance Bond, Payment Bond and any other Bonds or documents required by the Contract Documents after Notice of Intent to Award by the OWNER, the Bidder forfeits the sum of the Bid Bond or cashier's check as liquidated damages to the OWNER.

2.4 COMPLETING BID DOCUMENTS

- A. The General Conditions identify all forms comprising the Bid Documents. Additional copies may be obtained from the ENGINEER. The Bidder shall make no stipulations or alterations on the Bid forms. The Bidder must use and execute only the Bid form and Bid Schedules bound in the Contract Documents. Bidder shall complete and submit all forms included in the Bid Form Documents as the Bidder's Bid.
- B. The Bidder must fill in all items in the Bid Form Documents in ink or print. Furnish both the unit and total costs for each item in Bid Schedule (Document 00 41 00). The total Bid price is the full price for the performance of all work under the Contract Documents. Bidder shall initial in ink any corrections, interlineations, alterations, or erasures made by the Bidder on Bidder's entries in the Bid Documents.
- C. Any work or material which is specified in the Contract Documents or which is necessary because of the nature of the Work, but which is not listed separately in the Bid Schedule shall not be measured or paid for separately. The cost of such work or material shall be considered as included in the Contract Price.
- D. Bids by corporations must be executed in the corporate name by a corporate officer authorized to sign, and must be properly attested to as an official act of the corporation. At the OWNER's request, authority to sign shall be submitted.

- E. Bids by partnerships or joint ventures must be executed in the partnership or joint venture name and signed by a partner or joint venture whose title and official address must be shown. If a partnership or joint venture is the low bidder, the partnership or joint venture must also submit evidence to the OWNER of the responsibility of the partnership or joint venture as a bidder in the manner directed by the ENGINEER.
- F. Where the Bidder is wholly owned subsidiary of another company, the Bid must so state, and the owner or parent corporation also must agree to sign and be bound with the Bidder.
- G. All names must be typed or printed under or near the signature. Signatures shall be in longhand.
- H. The Bid shall contain an acknowledgment of receipt of all Addenda. The Addenda numbers must be filled in on the Bid form.
- I. The Bidder's address, telephone number, facsimile number, and email address for communications regarding the Bid must be shown on the first page of the Bid form.
- J. The divisions and sections of the specifications, and the identifications of any Drawings, shall not control Bidder in dividing the Work among subcontractors or suppliers, or delineating the Work to be performed by any specific trade.
- K. The base Bid and alternates shall include all Work required to be performed by the Contract Documents.

2.5 CONFLICT OF INTEREST, SUBCONTRACTORS

- A. Conflict of interest pertaining to Subcontractors is described in paragraph 6.5H of the General Conditions.
- B. Bidder shall not subcontract more than 75 percent of the dollar value of the total contemplated Work (exclusive of the supply of materials and equipment to be incorporated in the Work) without OWNER's prior written approval.

2.6 SUBMISSION OF BIDS

- A. Bids shall be submitted at the time and place indicated in the Invitation to Bid and should be enclosed in an opaque sealed envelope, marked with the Construction Contract name and number, the name and address of the Bidder, and the date and the opening time for Bids. If the Bid is sent through the mail or other delivery system the sealed envelope should be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it. It is the sole responsibility of the Bidder to deliver the Bid before the scheduled time.

- B. Bidder will make no recapitulations, stipulations, alterations, alternate submissions, or modifications in any manner to any of the Contract Documents.
- C. Bidder must submit a Bid by completing all of the Bid Form Documents and Bid Attachments, which are:
 - 1. Bid Security amount and Bidder's information in Bid (Document 00 40 00).
 - 2. The Bid portion of the Bid Schedule which is included in these Contract Documents, which shall be in the form of a lump sum, or in the form of unit pricing pursuant to the Bid Schedule (Document 00 41 00).
 - 3. The Bid Security (Document 00 42 00)
 - 4. Bidder Status Report (Document 00 45 20)
 - 5. Subcontractor and Supplier Report (Document 00 45 30)
 - 6. Preference System Checklist (Form 00 22 01) when required
- D. Alternate bids, other than those called for in the Bid Schedule, will not be considered.
- E. No oral, telegraphic, telephonic, facsimile or modified bids will be considered.
- F. Bids may be submitted directly to the City Recorder via email when indicated in the Invitation to Bid. Bidder shall combine all Bid submittal documents to ONE PDF document when required to do so.

2.7 MODIFICATION AND WITHDRAWAL OF BIDS

- A. At any time prior to the opening of Bids, Bids may be modified or withdrawn if a written notice of modification or withdrawal is signed by Bidder and delivered to the place where Bids are to be submitted. Bid Security will be returned upon proper withdrawal of a Bid prior to the time for Bid opening.
- B. Within 24 hours after Bids are opened, any Bidder may file written notice with OWNER that there was a substantial mistake made in the preparation of its Bid. Bidder must thereafter promptly demonstrate Bidder's mistake. The OWNER has sole discretion to determine whether to permit any modification or withdrawal or the return of any Bid Security.
- C. When it appears a mistake has been made, or when the OWNER desires an assurance of any matter, the OWNER may request a Bidder to confirm the Bid in writing.

2.8 OPENING OF BIDS

- A. Bids will be opened and read aloud publicly unless obviously non-responsive. An abstract of the amounts of the base schedule of prices and any alternate schedules will be made available for review after the opening of Bids.
- B. Any Bids received after the time specified in the Invitation to Bid will be returned unopened.
- C. Bids may be opened internally when indicated in the Invitation to Bid.

2.9 BIDS SUBJECT TO ACCEPTANCE FOR 45 DAYS

- A. All bids remain subject to acceptance for 45 days after the day of the Bid opening. OWNER may, in its sole discretion, release any Bid and return the Bid security prior to that date.

PART 3 EVALUATION AND AWARD

3.1 EVALUATION OF BIDDER'S QUALIFICATIONS

- A. Within seven (7) calendar days of ENGINEER's request, a Bidder, whose Bid is under consideration for award shall submit to the ENGINEER the following information for the Bidder. ENGINEER may request like information on Bidder's Subcontractors, Bidder's Suppliers or any other information the ENGINEER may require.
 - 1. A current financial statement for the Work (as provided to bonding company);
 - 2. A chronological list of "in progress" and "completed" construction work done by Bidder during the last 3 years; including project name, address, owner, contract name, and current telephone number;
 - 3. Present construction commitments other than items listed in paragraph 2 above;
 - 4. Proposed organizational structure such as firm ownership, project manager, progress scheduler, and superintendent for the Work of this Project;
 - 5. Owned and rented equipment which is to be used to do the Work;
 - 6. Investigations, arbitration, litigation or claims which are pending, threatened, settled or otherwise disposed of within the last three (3) years;
 - 7. Evidence of ability to perform and complete the Work in a manner and within the time limit specified. As a minimum, identify specific experience on projects similar to the Work in physical size, cost, and commercial nature. If the work experiences of the project manager and superintendent designated to construct this project are

different than that of the company, provide resumes of their work history. Include their actual project titles and indicate their actual responsibilities on each given project;

8. All matters consistent with federal, state and local Laws and Regulations; and
 9. Such other data as may be called by the ENGINEER.
- B. If Bidder believes any information should be held confidential for business reasons, Bidder must submit a written claim of business confidentiality for that particular information and include a specific statement of the reasons supporting the claim pursuant to Utah Code Ann. ↓ 63-2-308.
- C. Untimely response or failure to provide the requested information by Bidder will release OWNER of any obligation to further consider the Bidder's Bid.

3.2 EVALUATION OF BIDS

- A. OWNER reserves the right: to reject any and all Bids or any part thereof; to waive any informalities in the Bid Schedule and elsewhere; to negotiate and agree to contract terms with the successful Bidder; to disregard non-conforming, non-responsive, unbalanced or conditional Bids; and to withhold the award for any reason deemed in the best interests of the OWNER.
- B. OWNER reserves the right to reject any Bid if OWNER believes that it would not be in the best interest of the Project or the OWNER. Without limitation, such rejection may be because the Bid is not responsive, or the Bidder is unqualified or of doubtful ability or the Bid or Bidder fails to meet any other pertinent standard or criteria established by OWNER.
- C. If the OWNER intends to make an award to a Bidder, a Notice of Intent to Award will be issued.
- D. OWNER may consider all information which OWNER believes is relevant when evaluating a Bid, including, without limitation:
1. The qualifications and experience of the Bidder and of the Subcontractors, Suppliers, and other persons and organizations proposed (whether or not the Bid otherwise complies with the prescribed requirements).
 2. Such alternates, unit prices and other data, as may be requested in the Bid Form, Bid Schedule, or written requests issued prior to OWNER's Notice of Intent to Award the Construction Contract.
 3. Operating costs, maintenance requirements, performance data, and guarantees of

ability to provide the required materials and equipment.

4. Corporate organization and capacity for any party.
 5. Ability to perform and complete the Work in the manner and within the time specified.
 6. Pending litigation.
 7. The amount of the Bid.
 8. Proper licensing to do the Work in compliance with licensing laws of the State of Utah for contractors and subcontractors.
 9. All other relevant matters, consistent with OWNER's procurement code and administrative rules, OWNER's ordinances and program policies.
- E. To establish qualifications of Bidder, OWNER may request such data indicated in the Bid Documents, conduct such investigations as OWNER deems appropriate, and consider any other information (whether obtained from the Bid, the Bidder, or any other source).
- F. If the Construction Contract is to be awarded, it will be awarded to the lowest bid, most responsive qualified, and responsible Bidder as determined by the OWNER. Alternates may be accepted depending upon availability of OWNER's funds and as determined by the OWNER. Accepted alternates will be considered in determining the most responsive, qualified, and responsible Bidder.
- G. Bid Schedules will be evaluated as follows:
1. Discrepancies in the multiplication of quantities of Work items and unit prices will be resolved in favor of the unit prices. OWNER may correct Bid Schedule calculation errors accordingly.
 2. Prices written out in words shall govern over prices written out in numbers.
 3. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
 4. Bids shall not contain any recapitulations of or changes in the work to be done.
- H. The OWNER, in the OWNER's sole discretion, shall make determinations as to disqualification of Bidders or rejection of Bids. Such matters may include, without limitation, submission of more than one Bid by the Bidder (whether under the same or different names); evidence of collusion among Bidders; other commitments of Bidder which, in the OWNER's sole judgment, might hinder the Work; previous defaults, Bid irregularities when not waived in the best interests of the OWNER, delays or poor

performance by Bidder on any project; official action against Bidder; and any other cause which, in the OWNER's sole discretion and judgment, is sufficient to justify disqualification of a Bidder or rejection of a Bid.

3.3 **ADJUSTMENTS TO THE COST OF THE WORK AFTER OPENING OF BIDS**

- A. The Contract Price identified in the Agreement represents the cost of the work which is to be paid by the OWNER to the CONTRACTOR.
- B. Adjustments to the Contract Price which are agreed to between the OWNER and the successful Bidder shall be effected by signing an Agreement Supplement.

3.4 **SUBSTITUTIONS**

- A. The Construction Contract, if awarded, will be on the basis of materials and equipment described in the Drawings, Specifications and any Addenda.
- B. After the Effective Date of the Construction Contract, the procedure for submitting an application for substitution is set forth in Article 6.4 of the General Conditions.

3.5 **SUBMITTALS REQUIRED FOR AWARD OF CONTRACT**

- A. **Agreement Attachments:** The Agreement Attachments shall be submitted within 7 days after OWNER gives Notice of Intent to Award the Construction Contract, or Agreement (Document 00 50 00)
 - 1. The Attachments include: Certificate(s) of Insurance (Document 00 65 00).
 - 2. The Attachments shall be carefully examined by the Bidder.
 - 3. The successful Bidder shall deliver the required Agreement Attachments prior to the execution of the Construction Contract to OWNER.
 - 4. Refer to Certificate(s) of Insurance (Document 00 65 00) for requirements.
- B. **Other Information:** When a determination has been made to award the Construction Contract, Bidder is required, prior to the award or after the award, or both, to furnish such other information as the ENGINEER requests.

3.6 **SIGNING OF AGREEMENT**

- A. OWNER furnishes the Construction Contract within 14 days after receiving the required Agreement Attachments. The Bidder shall pick up, sign and return to OWNER within 3 days the required number of copies of the Construction Contract. A minimum of three (3) originals will be signed and returned to the OWNER. One executed original will be

returned to the Bidder. Bidder shall comply with all execution requirements.

- B. All of Bidder's executions and submittals must be delivered to the OWNER before OWNER will furnish the Construction Contract. The Construction Contract will not be deemed awarded and shall not be binding on the OWNER until it has been approved and executed by the OWNER, and a fully executed copy is formally delivered to the CONTRACTOR. The OWNER reserves the right to rescind its Notice of Intent to Award without liability, except for the return of Bidder's Bid Security, at any time before the Construction Contract has been fully executed by all parties and delivered to the CONTRACTOR.
- C. Transfers, delegations or assignments of interests in the Contract Documents are prohibited, unless prior written authorization is received from the OWNER.
- D. At the time of Bidding, and the signing of the Agreement, and at all times during the Work, Bidder shall be properly licensed to do the Work and shall be in compliance with the license laws of the State of Utah, South Salt Lake City, and Salt Lake County. The Bidder shall also require all Subcontractors to do the same.
- E. If a Bidder fails to fully and properly execute the Construction Contract and provide all submittals required therewith within five (5) days after the date of the Construction Contract, the OWNER may elect to rescind the Notice of Intent to Award, and the OWNER shall be entitled to the full amount of Bidder's Bid Security, not as a penalty, but in liquidation of and compensation for damages sustained. In the OWNER's sole discretion, a Notice of Intent to Award may then be provided to another bidder whose Bid is most advantageous to the OWNER, price and other factors considered.

END OF DOCUMENT

DOCUMENT 00 20 01

MODIFICATIONS TO INSTRUCTIONS TO BIDDERS

This document changes provisions in the Instructions to Bidders. All other provisions of the Instructions to Bidders document remain in full force and effect.

Add the following paragraph to article 1.1

1.1 DESCRIPTION OF WORK

- B. General Conditions: as published in Document 00 70 00 in the 2018 Edition of the Manual of Standard Specifications by the Utah Chapter of the American Public Works Association.

Add the following paragraph to article 1.2

1.2 COPIES OF BID DOCUMENTS

- D. All provisions of the 2018 Edition of the Manual of Standard Specifications and Manual of Standard Plans published by the Utah Chapter of the American Public Works Association that are applicable to the Work are hereby made a part of the Contract Documents by reference. The publications may be purchased separately from the Utah technology Transfer Center, Utah State University 8205 Old Main Hill, Logan UT 84322-8205.

Remove paragraph A. of article 2.2 and replace with the following.

2.2 EQUIPMENT AND MATERIAL OPTIONS PRIOR TO BID OPENING

- A. If a Bidder or Supplier wishes to supply a product other than that identified in the Contract Documents, said Bidder or Supplier shall submit a written request for approval to the ENGINEER at least five (5) calendar days prior to the date set for opening of bids.

Remove paragraph C. of article 2.2 and replace with the following.

2.2 EQUIPMENT AND MATERIAL OPTIONS PRIOR TO BID OPENING

- C. ENGINEER's failure to act upon such a request within three (3) days after receipt shall be deemed a denial thereof.

Remove paragraph A. of article 3.1 and replace with the following.

3.1 EVALUATION OF BIDDER'S QUALIFICATIONS

A. Within five (5) calendar days of ENGINEER's request, a Bidder, whose Bid is under consideration for award shall submit to the ENGINEER the following information for the Bidder. ENGINEER may request like information on Bidder's Subcontractors, Bidder's Suppliers or any other information the ENGINEER may require.

1. A current financial statement for the Work (as provided to bonding company);
2. A chronological list of "in progress" and "completed" construction work done by Bidder during the last 3 years; including project name, address, owner, contract name, and current telephone number;
3. Present construction commitments other than items listed in paragraph 2 above;
4. Proposed organizational structure such as firm ownership, project manager, progress scheduler, and superintendent for the Work of this Project;
5. Owned and rented equipment that is to be used to do the Work;
6. Investigations, arbitration, litigation or claims which are pending, threatened, settled or otherwise disposed of within the last three (3) years;
7. Evidence of ability to perform and complete the Work in a manner and within the time limit specified. As a minimum, identify specific experience on projects similar to the Work in physical size, cost, and commercial nature. If the work experiences of the project manager and superintendent designated to construct this project are different than that of the company, provide resumes of their work history. Include their actual project titles and indicate their actual responsibilities on each given project;
8. All matters consistent with federal, state and local Laws and Regulations; and
9. Such other data as may be called by the ENGINEER.

Add the following paragraph to article 3.2.

3.2 EVALUATION OF BIDS

- I. The following firms have been under contract to the OWNER in the design phase of the Work. They shall not be used as subcontractors by the CONTRACTOR.

1. Design Consultant: None.
 2. Geotechnical Consultant: None.
 3. Surveying Consultant: None.
 4. Other: None.
 5. Other: None.
- J. The contractor and every subcontractor, if any, shall certify to the Purchasing Agent and provide appropriate documentation whether they have and will maintain the following preference criteria:
1. An offer of qualified health insurance available to a contractor's and subcontractor's covered employees and the employee's dependents;
 2. A drug and alcohol testing policy during the period of the contract that:
 - i. Applies to all covered employees of the contractor and any subcontractor; and
 - ii. Requires covered employees to submit to random testing under the drug and alcohol testing policy;
 3. A program to actively recruit and employ veterans;
 4. A federal or state recognized job training program or a city-approved job training program;
 5. A safety program; and
 6. A formal policy of nondiscrimination consistent with federal, state, and local law.

This paragraph refers to South Salt Lake City Ordinances section 3.12.130, and the shall be used for OWNER's evaluation.

Remove paragraph A. of article 3.6 and replace with the following.

3.6 SIGNING OF AGREEMENT

- A. After OWNER gives Notice of Intent to Award the Construction Contract to the successful Bidder, the Bidder shall pick up, sign and return to OWNER, the required number of copies of the Construction Contract, bonds and insurance. A minimum of three (3) originals will be signed and returned to the OWNER. One executed original will be returned to the Bidder. Bidder shall comply with all execution requirements.

Remove paragraph E. of article 3.6 and replace with the following.

3.6 SIGNING OF AGREEMENT

- E. If a Bidder fails to fully and properly execute the Construction Contract and provide all submittals required therewith within five (5) days after the date of the Notice of Intent to Award, the OWNER may elect to rescind the Notice of Intent to Award, and the OWNER shall be entitled to the full amount of Bidder's Bid Security, not as a penalty, but in liquidation of and compensation for damages sustained. In the OWNER's sole discretion, a Notice of Intent to Award may then be provided to another bidder whose Bid is most advantageous to the OWNER, price and other factors considered.

The Contractor and every subcontractor, if any, shall certify and provide appropriate documentation whether they have and will maintain the following preference criteria:

Yes No

- | | | |
|-----|-----|--|
| ___ | ___ | An offer of qualified health insurance available to the contractor's and subcontractor's covered employees and the employee's dependents |
| ___ | ___ | A drug and alcohol testing policy during the period of the contract that: |
| ___ | ___ | applies to all covered employees of the contractor and any subcontractor; and |
| ___ | ___ | requires covered employees to submit to random testing under the drug and alcohol testing policy |
| ___ | ___ | A program to actively recruit and employ veterans |
| ___ | ___ | A federal or state recognized job training program or a city-approved job training program |
| ___ | ___ | A safety program |
| ___ | ___ | A formal policy of nondiscrimination consistent with federal, state, and local law |

END OF DOCUMENT

DOCUMENT 00 40 00
BID

PART 1 GENERAL

1.1 BID PROPOSAL

- A. After having personally and carefully examined all conditions surrounding the Work and the Contract Documents, the undersigned proposes to furnish all labor, equipment, tools and machinery and to furnish and deliver all materials not specifically mentioned as being furnished by the OWNER, which is required in and about the construction of the Construction Contract known as

South Salt Lake City 700 East Well – Cathodic Protection System .

- B. The undersigned proposes to complete the Work for the price or prices listed in the Bid Schedule (Document 00 41 00) and understands that quantities for Unit Price Work are not guaranteed.
- C. The undersigned proposes to furnish bonds with the Contract, signed by a surety company satisfactory to the OWNER, in an amount equal to the Contract amount conditioned to insure compliance with all requirements of the Contract Documents.
- D. The undersigned encloses a certified check, cashier's check, cash, or a Bid Bond for _____ Dollars (\$ _____) which is (five (5) percent of the Bid amount) payable to the OWNER, as a guarantee of good faith, and which it is agreed will be forfeited to the OWNER as liquidated damages in the event of the failure of the undersigned to enter into a contract and furnish satisfactory bonds to the OWNER.
- E. The undersigned proposes to execute the attached contract within five (5) days after the Notice of Intention to Award, and to begin work within ten (10) days after being notified to do so by the OWNER.
- F. If OWNER finds it necessary to further define the Work, Contract Price, Contract Time or some other portion of the Construction Contract, after Bid opening, the Bidder promises to execute an Agreement Supplement prior to or concurrent with the execution of the Agreement, if the Agreement Supplement is acceptable to the Bidder.
- G. It is understood that the OWNER has the right to reject this proposal or to accept it at the prices listed in the Bid Schedule.

PART 2 EXECUTION

2.1 BIDDER

A. The Bidder is as follows

Name: _____

Address: _____

Telephone number: _____

Facsimile number: _____

Tax identification number: _____

B. Bidder holds license number _____, issued on the ____ day of _____, _____, by the Utah State Department of Commerce, Division of Occupational and Professional Licensing. Bidder is licensed to practice as a _____ Contractor. License renewal date is the _____ day of _____, _____.

C. The undersigned hereby acknowledges receipt of the following Addenda.

(list Addenda numbers here)

2.2 BIDDER'S SUBSCRIPTION

A. Date: _____

B. Bidder's Signature: _____

C. Please print Bidder's name here: _____

D. Title: _____

END OF DOCUMENT

DOCUMENT 00 41 00

BID SCHEDULE

PART 1 GENERAL

1.1 DOCUMENT INCLUDES

- A. Price schedules.
- B. Measurement and payment provisions.

1.2 CONSTRUCTION CONTRACT

- A. The Construction Contract is known as South Salt Lake City 700 East Well – Cathodic Protection System.

1.3 REFERENCES

- A. APWA 01 29 00: Payment Procedures.
- B. Document 00 50 00: Agreement.

1.4 SCHEDULE TO BE ADDED TO THE AGREEMENT

- A. This document will be added to the Agreement by reference.

PART 2 PRICE SCHEDULES

2.1 BASE BID and ADDITIVE ALTERNATES

- A. Location: 3198 S 700 E, South Salt Lake, UT 84106

Bid Schedule – covers mobilization, Cathodic Protection System SSLC 700 East Well – deep well anode system, rectifier, and associated equipment, and demobilization.

BID SCHEDULE

BID TO: SOUTH SALT LAKE CITY

The undersigned Bidder hereby proposes to furnish all plant machinery, labor, services, materials, equipment, tools, supplies, transportation, utilities, and all other items and facilities necessary to perform all work required under the Bidding Schedules of the Owner's Contract Documents titled "**SOUTH SALT LAKE CITY 700 EAST WELL – CATHODIC PROTECTION SYSTEM**" drawings and all addenda issued by said Owner prior to opening of the bids.

The undersigned bidder acknowledges receipt of the following addenda:

No.	Date Received	No.	Date Received
_____	_____	_____	_____
_____	_____	_____	_____

Bidder agrees that, within 10 calendar days after receipt of Notice of Award from Owner, he will execute the Agreement in the required form, of which the Notice Inviting Bids, Instructions to Bidders, Bid, Information Required of Bidder, Technical Specifications, Drawings, and all addenda issued by Owner prior to the opening of bids, are a part, and will secure the required insurance and bonds and furnish the required insurance certificates; and that upon failure to do so within said time, then the bid guarantee furnished by Bidder shall be forfeited to Owner as liquidated damages for such failure; provided, that if Bidder shall execute the Agreement, secure the required insurance and bonds, and furnish the required insurance certificates within said time, his check, if furnished, shall be returned to him within five days thereafter, and the bid bond, if furnished, shall become void. It is further understood that this bid may not be withdrawn for a period of 45 days after the date set for the opening thereof, unless otherwise required by law.

Bidder further agrees to complete all work required under the contract within the time stipulated in the Contract Documents, and to accept in full payment therefore the price(s) named in the above-mentioned Bidding Schedule(s).

Dated: _____

Bidder: _____

By: _____

(Signature)

Title: _____

**BID SCHEDULE
FOR
SOUTH SALT LAKE CITY 700 EAST WELL – CATHODIC PROTECTION PROJECT**

Item No.	Description	Quantity Unit	Unit Price	Extended Amount
1	Mobilization	Lump Sum		
2	Cathodic Protection System SSLC 700 East Well – Deep Well Anode System, Rectifier, and Associated Equipment	Lump Sum		
3	Demobilization	Lump sum		
Total Project Bid for Schedule				\$

TOTAL PROJECT BID FOR SCHEDULE IN WORDS:

DOCUMENT 00 42 00
BID SECURITY

The Bid Security may be in the form of Bid Bond, Certified Check, Cashier Check, or Cash. If a Bid Bond is used, CONTRACTOR to provide its own form.

END OF DOCUMENT

CONTRACTING REQUIREMENTS

DOCUMENT 00 50 00

AGREEMENT

ON this ____ day of _____, 2024, this Agreement (“Agreement”) is entered into between the City of South Salt Lake (“CITY” or “OWNER” or “ENGINEER”) and _____ (“CONTRACTOR”) regarding the “_____” (“Project”). CITY and CONTRACTOR agree as follows:

PART 1 GENERAL

1.1 THE PROJECT.

CONTRACTOR shall complete the Project that is generally described as: South Salt Lake City 700 East Well – Cathodic Protection Project.

The CONTRACTOR responded to an Invitation to Bid (00 10 00) with a Bid Schedule (00 41 00), both of which are incorporated into this Agreement by this reference.

1.2 CITY REPRESENTATIVE.

CITY will assign a project supervisor to oversee the daily progress of the Project. CONTRACTOR may communicate with CITY through the assigned project supervisor; however, only the City Mayor shall have authority to approve a Change Order.

The OWNER assumes all duties and responsibilities of ENGINEER, and have the rights and authority assigned to ENGINEER in the Contract.

PART 2 TIME AND MONEY CONSIDERATIONS

2.1 TIME TO COMPLETION OF AGREEMENT

The Project shall be completed by November 29, 2024. The Project shall begin upon execution of this Agreement.

2.2 TIME OF THE ESSENCE/LIQUIDATED DAMAGES.

Time is of the essence to complete the Project. CITY will suffer financially if the Project is not completed on time. Due to the difficulty to quantify the damage to CITY if the Project is not completed on schedule, CONTRACTOR agrees to pay CITY **\$2,000.00** as liquidated damages for each day the Project continues beyond the date set forth in paragraph 2 without substantial completion (unless the date is extended by amendment to this Agreement).

2.3 CONTRACT PRICE/PAYMENT.

The contract price is \$_____. CITY reserves the right, pursuant to Utah Code Ann. § 13-8-5 to hold as retainage up to five percent (5%) of the contract price until all work is completed to its satisfaction. The Contractor agrees to receive payment only upon completion of the Project.

2.4 CONTRACTOR’S AWARENESS OF CONTRACT TERMS AND SITE CONDITIONS.

CONTRACTOR acknowledges the following: (1) it has reviewed this Agreement with all its addenda and agrees that it is generally sufficient to furnish understanding of all terms and conditions necessary to perform the Project; (2) it understands the rising and falling price of goods

and materials, and by accepting the contract price above, it accepts the risk or the benefit of such market shifts; (3) it has visited the Project site, is familiar with it and is satisfied with site conditions and weather conditions that may affect the cost, progress or performance of the Project; (4) it is familiar with all local, state and federal laws and regulations that may affect the cost, progress or performance of the Project; (5) it has performed any explorations or tests necessary to become familiar with the subsurface conditions at the site that may affect the cost, progress or performance of the Project; and (6) it is familiar with all physical conditions relating to existing surface and subsurface conditions, including utilities, which are at or contiguous to the site that may affect the cost, progress or performance of the Project and assumes all responsibility for timely and accurate location of all underground facilities.

2.5 INSURANCE & BONDS.

A. Before the Project is initiated CONTRACTOR shall deliver to CITY a certificate of insurance demonstrating that CONTRACTOR has in effect liability and other insurance appropriate to provide protection from claims arising from the Project resulting from the acts or omissions of CONTRACTOR, its agents or employees and all subcontractors or suppliers as well as their agents or employees, for whom CONTRACTOR may be liable. The certificate of insurance will demonstrate that CONTRACTOR has, at minimum the following types of insurance coverage:

- i. workers' compensation;
- ii. liability insurance providing protection for claims arising from bodily injury, sickness or disease, death, damage to property, damage from business interruption and motor vehicle accidents. CONTRACTOR shall maintain coverage in the minimum amount of one million dollars (\$1,000,000.00) per occurrence and two million dollars (\$2,000,000.00) in the aggregate, and must include a waiver of subrogation and name the City as an additional insured.

The insurance shall be provided by an insurance carrier with a rating of A- or better as rated by AM Best. The certificate(s) of insurance (00 60 00) shall be incorporated by this reference.

B. CONTRACTOR shall be required to post a Payment Bond and Performance Bond to cover this project, in the event of non-performance by CONTRACTOR, or non-payment by CONTRACTOR to a supplier or subcontractor. Performance Bond (00 61 00) and Payment Bond (00 62 00) are incorporated by this reference.

2.6 CITY'S DUTY TO PROVIDE THE SITE.

CITY shall furnish the site. CITY will notify CONTRACTOR of any encumbrances or restrictions specifically related to the use of the site with which CONTRACTOR must comply. CITY will obtain any necessary easements. CITY will obtain permission required for CONTRACTOR to have access to the site.

2.7 PROTECTION OF PERSON AND PROPERTY.

CONTRACTOR is solely responsible for safety measures in connection with the Project. CONTRACTOR shall take appropriate measures to prevent damage, injury or loss to: (1) all persons on the site or who may be affected by the Project; (2) all labor, materials and equipment to be incorporated into the Project; (3) other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities. CONTRACTOR shall comply with all applicable laws and regulations relating to the safety and protection of persons or property. CONTRACTOR shall erect and maintain all necessary safeguards for such safety and protection. If CONTRACTOR must enter a confined space, it shall have all personnel and monitoring equipment on site necessary to comply with all Federal, State, Local and any other applicable regulatory agency's safety guidelines (such as OSHA). A Confined Space Entry Permit shall be properly completed before entering a confined space. CONTRACTOR shall be responsible to erect and maintain all necessary traffic barricades and to provide all necessary traffic control. CONTRACTOR shall notify owners of adjacent property, including Blue Stakes notification to underground utility owners and shall cooperate with them in the

protection, removal, relocation or replacement of their property. Any damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by CONTRACTOR, any subcontractor, supplier, individual or entity performing the Project, shall be remedied by CONTRACTOR.

2.8 SUPERVISION/LABOR/SUBCONTRACTORS.

CONTRACTOR shall supervise the Project competently, devoting such attention and applying such skill and expertise as may be necessary to perform the Project in accordance with the Agreement. CONTRACTOR is responsible for the means, methods, techniques, sequences and procedures of performing the Project. CONTRACTOR shall assign a competent superintendent who will be its representative at the site and shall have the authority to act on its behalf. All communications given to or received from the superintendent shall be binding on CONTRACTOR. CONTRACTOR shall provide qualified and competent personnel to complete the Project. CONTRACTOR shall at all times maintain good discipline and order at the site. CONTRACTOR shall not employ any subcontractor or supplier if CITY reasonably objects. CONTRACTOR shall be fully responsible to CITY for its own acts and omissions as well as the acts and omissions of all subcontractors and suppliers performing the Project. This Agreement does not create a contractual relationship between CITY and any subcontractor or supplier. CITY's only payment obligation under this Agreement is to CONTRACTOR. CONTRACTOR shall require all subcontractors and suppliers to communicate with the CITY through CONTRACTOR.

2.9 MATERIAL AND EQUIPMENT/WARRANTY.

All materials and equipment incorporated into the Project shall be as specified or, if not specified, shall be of good quality and new, unless otherwise provided in this Agreement. CONTRACTOR warrants and guarantees to CITY that all workmanship, material and equipment will be in accordance with this Agreement and will not be defective. In recognition of the difficulties that may arise in proving the cause of a defect in materials or workmanship, CITY and CONTRACTOR agree that any such defect which manifests itself within one year of completion of this Agreement will have been caused by the improper workmanship, material or equipment of CONTRACTOR.

2.10 INDEMNIFICATION.

To the fullest extent permitted by law, CONTRACTOR agrees to indemnify and hold harmless CITY from and against all claims, costs, losses and damages, including attorney fees, arising out of the performance of this Agreement, provided that any such claim, cost, loss, or damage: (1) is attributable to bodily injury, sickness, disease, death, injury to tangible property, loss of use of property, including interruption of business; and (2) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any subcontractor or supplier for whom CONTRACTOR is responsible, regardless of whether caused in part by any negligent act or omission of CITY.

2.11 VARIATIONS IN THE PROJECT.

CITY's project supervisor may authorize minor variations in the Project from this Agreement that do not involve adjustment in the contract price or time and that are consistent with the intended design of the completed Project.

2.12 CHANGE ORDERS.

CITY may order additions, deletions, or revisions to the Project by a written amendment to this Agreement or by Change Order. Upon receipt of such document, CONTRACTOR shall promptly perform the work involved. There will be no increase in the contract price or time for any work performed that is not required by this Agreement, written modification to this Agreement, or Change Order. Change Orders shall be in writing, signed by CITY's Mayor and CONTRACTOR, specify the precise change and any adjustment in the contract price and/or time.

2.13 DELAYS.

CONTRACTOR shall not be responsible for delays due to neglect of utility owners, fire, floods, epidemics, abnormal weather conditions or acts of God. The contract time shall not be extended due to delays within the control of CONTRACTOR, subcontractors or suppliers. Where CONTRACTOR is prevented from completing any part of the Project within the contract time due to delay beyond the control of CONTRACTOR, an extension of the contract time in an amount equal to the time lost due to the delay shall be the sole remedy.

2.14 INSPECTIONS.

CITY's representatives shall have access to the site and the Project at all reasonable times. CONTRACTOR shall give CITY timely notice of readiness of the Project for all required tests and inspections. CITY will not charge CONTRACTOR a fee for tests and inspections it performs itself unless requested after normal work hours or on Saturdays or Sundays. If any work that is to be inspected, tested or approved is covered by CONTRACTOR without the approval of CITY it must, if requested, be uncovered for inspection at CONTRACTOR's expense.

PART 3 EXECUTION

3.1 STOPPING THE PROJECT.

CITY, at its sole discretion, may order CONTRACTOR to stop the Project if any of the following occur: (1) workmanship, material or equipment is defective; (2) CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment; or (3) CONTRACTOR fails to perform the Project in such a way that the completed Project will conform to this Agreement.

3.2 DEFECTIVE WORK.

CITY's representative will have authority to reject workmanship, material, or equipment which CITY reasonably concludes: (1) is defective; (2) will not produce a completed Project that conforms to this Agreement; or (3) will prejudice the integrity of the Project as a functioning whole. CONTRACTOR shall correct all defective workmanship or, if rejected by CITY, remove it from the project and replace it with workmanship, material or equipment that is not defective.

3.3 COMPLETION.

When CONTRACTOR considers the Project ready for its intended use, it shall notify CITY that the Project is substantially complete. Promptly upon receiving notice, CITY shall make an inspection. If CITY does not agree that the Project is substantially complete, it will notify CONTRACTOR giving the specific reasons. If CITY does consider the Project substantially complete, it will so certify in writing and provide a written list of items that remain to be corrected or completed. Upon notice from CONTRACTOR that the entire Project is complete, CITY will promptly make a final inspection with CONTRACTOR and will notify CONTRACTOR in writing of any aspect of the Project that remains incomplete or defective. CONTRACTOR shall immediately take such steps as are necessary to make such corrections.

3.4 STATUS VERIFICATION SYSTEM.

CONTRACTOR hereby certifies that it is registered and participates in a Status Verification System, as defined by Utah Code Ann. § 63G-12-301, in order to verify the work eligibility of its employees. CONTRACTOR is solely responsible for ensuring registration and participation in the Status Verification System. CONTRACTOR also certifies that any subcontractor employed by CONTRACTOR is also enrolled and participates in a Status Verification System. CONTRACTOR will provide, within five days of request by the CITY, proof of enrollment and participation in the system.

3.5 FINAL PAYMENT.

After CONTRACTOR has satisfactorily completed all corrections identified during the final inspection, it may make application for final payment. Upon receipt of the application for final payment, if CITY

verifies that all corrections identified in the final inspection have been completed, final payment will become due within thirty (30) days of the application.

3.6 ELECTRONIC COPIES.

The Parties agree that electronic copies of this Agreement, including the signature page, shall be sufficient evidence of the contents of this Agreement, without reference to the original, signed copy.

3.7 RESOLVING DISPUTES.

This Agreement shall be governed by the laws of the state of Utah.

3.8 THE AGREEMENT.

This Agreement shall consist of the following documents:

- (1) Agreement (00 50 00);
- (2) Bid Documents (00 10 00, 00 40 00, 00 41 00);
- (3) General Conditions (EJCDC 00 70 00);
- (4) Modifications to General Conditions (00 81 00);
- (5) Certificate(s) of Insurance (00 65 00);
- (6) Bonds (00 61 00, 00 62 00);
- (7) Instructions to Bidders (00 20 00);
- (8) Drawings;
- (9) 2017 Edition of the Manual of Standard Specifications and Manual of Standard Plans published by the Utah Chapter of the American Public Works Association; and
- (10) Addenda.

If there are any conflicting provisions between the Agreement and the Exhibits, then the Agreement controls.

[Signatures appear on next page]

WHEREFORE, CITY and CONTRACTOR, through their duly authorized representatives, execute this Agreement:

For CONTRACTOR:

Dated: _____

By: _____
(signature)

(type or print)

Title: _____

Witness: _____
(signature)

(type or print)

For CITY:

Dated: _____

By: _____
(signature)

Cherie Wood, Mayor

Attest: _____
(signature)

Ariel Andrus, City Recorder

Approved as to form:

Josh Collins, City Attorney

END OF DOCUMENT

DOCUMENT 00 60 00
CERTIFICATE(S) OF INSURANCE

PART 1 GENERAL

1.1 PROCEDURE

- A. For filing purposes, add Certificate(s) of Insurance to the Contract Documents following this page.

PART 2 REQUIREMENT

2.1 GENERAL

- A. Before the Project is initiated CONTRACTOR shall deliver to CITY a certificate of insurance demonstrating that CONTRACTOR has in effect liability and other insurance appropriate to provide protection from claims arising from the Project resulting from the acts or omissions of CONTRACTOR, its agents or employees and all subcontractors or suppliers as well as their agents or employees, for whom CONTRACTOR may be liable.
- B. CONTRACTOR shall maintain or cause to be maintained on its behalf insurance policies of the types required below with insurance companies authorized to do business in the State of Utah, (i) having a Best Insurance Reports rating of "A" or better and a financial size category of "X" or higher, or (ii) otherwise being acceptable to CITY with coverage limits and provisions at least sufficient to satisfy the requirements set forth below. All sureties shall be listed in the Department of the Treasury Circular 570, with bond amounts not exceeding those listed.

2.2 INSURANCE DETAIL

- A. Workers' Compensation Insurance: Statutory workers' compensation insurance (Part A). Such insurance shall also include employer's liability (Part B) insurance in a limit of not less than \$1,000,000 for each: accident, disease, and employee. No owner or officer may be excluded; or if any exclusions exist, no excluded proprietor, partner, executive officer, or member, may perform any work pursuant to this agreement.
- B. General Liability Insurance: Commercial general liability insurance on an occurrence basis arising out of claims for bodily injury (including death) and property damage. Such insurance shall provide coverage for ongoing operations and products-completed operations, blanket contractual, broad form property damage, personal and advertising injury, independent contractors and sudden and accidental pollution liability (pollution

liability arising out of a hostile fire) with not less than \$2,000,000 per occurrence limit combined bodily injury and property damage, with not less than \$3,000,000 aggregate limit, provided the general policy aggregate shall apply separately to the Contractor on a per project basis. Any aggregate limit that does not apply separately to the premises shall be at least double the required per occurrence limit.

- C. Automobile Liability Insurance: Automobile liability insurance for the CONTRACTOR's liability arising out of the use of owned (if any), leased (if any), non-owned and hired vehicles of the CONTRACTOR, with no less than \$3,000,000 limit per accident for combined bodily injury and property damage and containing appropriate no-fault insurance provisions wherever applicable. All owned and/or leased automobiles shall be covered using symbol "1" (any auto).
- D. Endorsements
- a) Additional Insured Endorsements: All policies of liability insurance required to be maintained by the CONSULTANT shall be endorsed to name the CITY as an additional insured for ongoing operations (ISO CG 20 10 or equivalent) and completed operations (ISO CG 20 37 or equivalent) (except for insurance policies required in Sections 12(A), and (C).
- b) Primary and Non-Contributory Endorsements: The CONSULTANT's insurance coverage shall be a primary insurance as respects to the CITY, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the CITY, its officers, officials, employees or volunteers shall be in excess of CONSULTANT's insurance and shall not contribute with it.
- c) Waiver of Subrogation Endorsements: The CONSULTANT hereby waives any and every claim for recovery from the CITY, Lenders and their respective officers and employees for any and all loss or damage covered by any of the insurance policies to be maintained under this Agreement to the extent that such loss or damage is recovered under any such policy. To the extent the foregoing waiver would preclude coverage under any insurance required by Agreement Section 12, the CONSULTANT shall give written notice of the terms of such waiver to each insurance company which has issued, or which may issue in the future, any such policy of insurance (if such notice is required by the insurance policy) and shall cause each such insurance policy to be properly endorsed, or to otherwise contain one or more provisions that prevent the invalidation of the insurance coverage by reason of such a waiver.

END OF DOCUMENT

DOCUMENT 00 61 00
PERFORMANCE BOND

PART 1 GENERAL

1.1 BOND

A. Number: _____.

B. Amount: _____

_____ dollars (\$ _____).

1.2 SURETY

A. Name: _____

B. Address: _____

C. Telephone number: _____.

D. Facsimile number: _____.

1.3 CONTRACTOR

A. Name: _____

B. Address: _____

C. Telephone number: _____.

D. Facsimile number: _____.

1.4 OWNER

A. The City of South Salt Lake.

1.5 CONSTRUCTION CONTRACT

A. The Construction Contract is known as South Salt Lake City 700 East – Cathodic

Protection System .

1.6 DEFINED TERMS

- A. Terms used in this Performance Bond which are defined in Article 1.1 of the General Conditions will have the meanings indicated in the General Conditions.

PART 2 COVENANTS

2.1 SURETY'S AND CONTRACTOR'S RELATIONSHIP

- A. Surety as surety, and CONTRACTOR as principal, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER as obligee, for the performance of the Construction Contract, whether awarded or about to be awarded.
- B. If CONTRACTOR performs the Construction Contract, the Surety and the CONTRACTOR shall have no obligation under this Bond, except to participate in conferences indicated in Article 2.3.

2.2 NOTICE

- A. Notice to the Surety, the OWNER or the CONTRACTOR shall be sent by certified mail, facsimile, or hand delivered to the address shown on this Bond agreement.
- B. Notices sent as required by paragraph 2.2A shall be effective on the date on which such notice was sent.
- C. Notice may be sent by facsimile. Facsimile notice shall be effective on the date of transmission provided that a confirmation establishing the successful transmission of the notice is sent by first-class mail, postage prepaid, along with a copy of the notice transmitted, no later than twenty-four (24) hours after the facsimile notice is transmitted.
- D. If any notice requires a period of less than seven (7) days for response, the notice shall be sent by facsimile.
- E. If the time for response to any notice expires on a Saturday, Sunday or a legal holiday in the State of Utah, the time shall be extended to the next working day.

2.3 PROCEDURE TO INVOKE SURETY'S OBLIGATION

- A. If the CONTRACTOR fails to perform or to comply with the terms of the Construction Contract, and such failure to perform or to comply has not been waived by the OWNER, the OWNER may notify the CONTRACTOR and the Surety, at their addresses described above, that the OWNER is considering declaring the CONTRACTOR in default.
- B. Before declaring the default, the OWNER shall request and attempt to arrange a

conference with the CONTRACTOR and the Surety to be held at a time and place required by the OWNER to discuss methods of performing the Work.

- C. If the CONTRACTOR does not attend the conference or agree to cure any deficiencies in the CONTRACTOR's performance of the Work to the satisfaction of the OWNER, the OWNER may declare the CONTRACTOR in default and formally terminate the CONTRACTOR's right to complete the Work. Such default shall not be declared earlier than 10 days after the CONTRACTOR and the Surety have received notice as provided in Article 2.2.
- D. If the Contract with the CONTRACTOR is terminated, the OWNER agrees to pay the unpaid Balance of the Contract Price to the Surety for completion of the Work in accordance with the terms of the Construction Contract or to a contractor selected by the Surety to perform the Work in accordance with the terms of the Construction Contract.

2.4 SURETY'S OPTIONS AT CONTRACTOR TERMINATION

- A. Surety Completes the Work: The Surety may undertake to perform and complete the Work itself, through its agents or through independent contractors.
- B. Surety Obtains Bids or Proposals: The Surety may obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Work.
 - 1. Such bids or proposals shall be prepared by the Surety for execution by the OWNER and the completion contractor selected.
 - 2. Surety shall secure the contract with Performance and Payment Bonds executed by a qualified surety equivalent to this Performance Bond and the payment Bond (Document 00 62 00); and
 - 3. Surety shall pay to the OWNER the amount of damages as described in paragraph 2.6 in excess of the balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR's default.
- C. Surety to Pay OWNER: Surety may determine the amount not to exceed the amount of this bond specified in paragraph 1.1B, for which Surety believes it may be liable to pay, and tender payment therefor to the OWNER. OWNER has sole discretion to accept payment. If the OWNER refuses the payment tendered, 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.

2.5 PROCEDURE FOR OWNER TO DECLARE SURETY IN DEFAULT

- A. The OWNER may declare the Surety to be in default upon the following procedures.
 - 1. The OWNER shall issue an additional written notice to the Surety, after declaring the CONTRACTOR in default as provided in Article 2.3, demanding that the Surety

perform its obligations under this Bond.

2. Surety shall respond to the OWNER within 15 days after receipt of the OWNER's additional notice, either denying the claim or accepting liability and exercising its' options under Article 2.4.

2.6 SURETY'S OBLIGATIONS

- A. After the OWNER has terminated the CONTRACTOR's right to complete the Construction Contract, and if the Surety elects to complete the Construction Contract as provided in Article 2.4, then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Construction Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the Construction Contract.
- B. To the limit of the amount of this Bond, but subject to commitment by the OWNER to pay all valid and proper payments made to or on behalf of the CONTRACTOR under the Construction Contract, the Surety is obligated, without duplication, for:
 1. the responsibilities of the CONTRACTOR for correction of Defective Work and completion of the Construction Contract;
 2. design professional and delay costs resulting from the CONTRACTOR's default, and resulting from the actions or failure to act of the Surety under Article 2.4; and
 3. liquidated damages which are or may become due for any reason.

2.7 UNRELATED OBLIGATIONS OF THE CONTRACTOR

- A. The Surety and the OWNER shall not be liable to others for obligations of the CONTRACTOR that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or changed on account of any such unrelated obligations.
- B. No right of action shall accrue on this Bond to any person or entity other than the OWNER or its heirs, executors, administrators, or successors.

2.8 SURETY WAIVES NOTICE OF ANY CHANGE

- A. Surety hereby waives notice of any change, including changes of Contract Time, Contract Price and scope of Work, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

2.9 VENUE

- A. Any suit or action commenced by OWNER under this Bond shall be for action in a court of competent jurisdiction in the State of Utah.

PART 3 EXECUTION

3.1 EFFECTIVE DATE

- A. Surety and CONTRACTOR execute this Bond agreement and declare it to be in effect as of the _____ day of _____, ____.

3.2 CONTRACTOR'S SUBSCRIPTION AND ACKNOWLEDGMENT

- A. Type of organization: _____
(corporation, partnership, individual, etc.)
- B. If CONTRACTOR is a corporation, attach a corporate resolution evidencing CONTRACTOR's authority to sign.
- C. CONTRACTOR's signature: _____
- D. Please print name here: _____
- E. Title: _____
- F. Notary Acknowledgement: In the County of _____,
State of _____, on the _____ day of _____, 20 ____,
the foregoing instrument was acknowledged before me

(person acknowledging and title or representative capacity, if any).

Notary's signature

Residing at

My commission expires:

Notary's seal

3.3 SURETY'S SUBSCRIPTION AND ACKNOWLEDGMENT

A. Attach evidence of Surety's corporate authority to sign.

B. Surety's signature: _____

C. Please print name here: _____

D. Title: _____

E. **Acknowledgment:** In the County of _____,
State of _____, on the _____ day of _____, _____,
before me, the undersigned notary, personally appeared _____,
who proved to me his/her identity through documentary evidence in the form of a
_____ to be the
person whose name is signed as the authorized Surety and acknowledged to me that this
document was signed voluntarily for its stated purpose.

Notary Public signature

Notary Public seal

END OF DOCUMENT

DOCUMENT 00 62 00
PAYMENT BOND

PART 1 GENERAL

1.1 BOND

- A. Number: _____.
- B. Amount: _____
_____ dollars (\$ _____).

1.2 SURETY

- A. Name: _____
- B. Address: _____

- C. Telephone number: _____.
- D. Facsimile number: _____.

1.3 CONTRACTOR

- A. Name: _____
- B. Address: _____

- C. Telephone number: _____.
- D. Facsimile number: _____.

1.4 OWNER

- A. The City of South Salt Lake_____.

1.5 CONSTRUCTION CONTRACT

- A. The Construction Contract is known as South Salt Lake City 700 East Well – Cathodic Protection System.

1.6 DEFINED TERMS

- A. Terms used in this Payment Bond, which are defined in article 1.1 of the General Conditions, will have the meanings indicated in the General Conditions.

PART 2 COVENANTS

2.1 SURETY'S AND CONTRACTOR'S RELATIONSHIP

- A. Surety as surety, and CONTRACTOR as principal, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER as obligee, for the performance of the Construction Contract, whether awarded or about to be awarded.
- B. If CONTRACTOR performs the Construction Contract, the Surety and the CONTRACTOR shall have no obligation under this Bond.

2.2 NOTICE

- A. Notice to the Surety, the OWNER or the CONTRACTOR shall be sent by certified mail, facsimile, or hand delivered to the address shown on this Bond agreement.
- B. Notices sent as required by paragraph 2.2A shall be effective on the date on which such notice was sent.
- C. Notice may be sent by facsimile. Facsimile notice shall be effective on the date of transmission provided that a confirmation establishing the successful transmission of the notice is sent by first-class mail, postage prepaid, along with a copy of the notice transmitted, no later than twenty-four (24) hours after the facsimile notice is transmitted.
- D. If any notice requires a period of less than seven (7) days for response, the notice shall be sent by facsimile.
- E. If the time for response to any notice expires on a Saturday, Sunday or a legal holiday in the State of Utah, the time shall be extended to the next working day.

2.3 CONDITIONS OF SURETY'S LIABILITY

- A. With respect to the OWNER, this Bond agreement shall be null and void if the CONTRACTOR promptly takes the following actions:
 - 1. promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2. defends, indemnifies and saves harmless the OWNER from all claims, demands, Liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Work, provided the OWNER has tendered defense of such claims, demands, liens or suits to the CONTRACTOR and the Surety.

2.4 PROCEDURE TO INVOKE SURETY'S OBLIGATION

- A. **Concerning Claimants who have a Direct Contract with the CONTRACTOR:** The Surety shall have no obligation to Claimants under this Bond who are employed by or have a direct contract with the CONTRACTOR until Claimants have given notice to the Surety at the address shown on this Bond agreement and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
- B. **Concerning Claimant who does not have a Direct Contract with the CONTRACTOR:** The Surety shall have no obligation to Claimant under this Bond who does not have a direct contract with the CONTRACTOR until Claimant takes the following actions.
1. The Claimant shall furnish written notice to the CONTRACTOR and send a copy, or notice thereof, to the OWNER, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed.
 2. The Claimant shall have either received a rejection in whole or in part from the CONTRACTOR, or not received within 15 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR has indicated the claim will be paid directly or indirectly.
 3. Not having been paid within the above 15 days, the Claimant shall have sent a written notice to the Surety at the address described on this Bond agreement and sent a copy, or notice thereof, to the OWNER stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR.

2.5 SURETY'S OPTION TO SETTLE CLAIMS

- A. When the Claimant has satisfied the conditions of Article 2.4, the Surety shall promptly and at the Surety's expense take the following actions.
1. Send an answer to the Claimant, with a copy to the OWNER, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 2. Pay or arrange for payment of any undisputed amounts.

2.6 SURETY'S OBLIGATION

- A. Surety's total obligations under this bond shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

2.7 USE OF FUNDS

A. Amounts owed by OWNER to CONTRACTOR under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, against the Performance Bond (Document 00 61 00). By the CONTRACTOR furnishing and the OWNER accepting this Bond, they agree that all funds earned by the CONTRACTOR in the performance of the Work are dedicated as follows:

1. The OWNER has first priority to use the funds for the completion of the Work.
2. The CONTRACTOR and the Surety have second priority to use the funds to satisfy the obligations of the CONTRACTOR and the Surety under this Bond.

2.8 UNRELATED OBLIGATIONS OF THE CONTRACTOR

- A. The Surety and the OWNER shall not be liable to Claimants or others for obligations of the CONTRACTOR that are unrelated to the Construction Contract.
- B. The OWNER shall not be liable for payment of any damages, costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

2.9 SURETY WAIVES NOTICE OF ANY CHANGE

- A. Surety hereby waives notice of any change to the Construction Contract including changes of Contract Time, Contract Price, and scope of Work, or to related subcontracts, purchase orders or other obligations.

2.10 VENUE

- A. Any suit or action commenced by a Claimant under this Bond shall be for action in a court of competent jurisdiction in the State of Utah.

2.11 COPIES OF THIS BOND

- A. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the CONTRACTOR or OWNER shall promptly furnish a copy of this Bond or shall permit a copy to be made.

PART 3 EXECUTION

3.1 EFFECTIVE DATE

- A. Surety and CONTRACTOR executed this Bond agreement and declared it to be in effect as of the _____ day of _____, ____.

3.2 CONTRACTOR'S SUBSCRIPTION AND ACKNOWLEDGMENT

- A. Type of organization: _____
(corporation, partnership, individual, etc.)
- B. If CONTRACTOR is a corporation, attach a corporate resolution evidencing CONTRACTOR's authority to sign.
- C. CONTRACTOR's signature: _____
- D. Please print name here: _____
- E. Title: _____
- F. Notary Acknowledgement: In the County of _____,
State of _____, on the _____ day of _____, 20 ____,
the foregoing instrument was acknowledged before me

(person acknowledging and title or representative capacity, if any).

Notary's signature

Residing at

My commission expires:

Notary's seal

3.3 SURETY'S SUBSCRIPTION AND ACKNOWLEDGMENT

- A. Attach evidence of Surety's corporate authority to sign.
- B. Surety's signature: _____
- C. Please print name here: _____
- D. Title: _____
- E. Notary Acknowledgment: In the County of _____,
State of _____, on the _____ day of _____, 20 ____,
before me, the undersigned notary, personally appeared _____,
who proved to me his/her identity through documentary evidence in the form of a
_____ to be the
person whose name is signed as the authorized Surety and acknowledged to me that this
document was signed voluntarily for its stated purpose.

Notary's signature

Residing at

My commission expires:

Notary's seal

END OF DOCUMENT

SECTION 00 70 00
GENERAL CONDITIONS

The General Conditions to be used for the Project are the Standard General Conditions of the Construction Contract prepared by Engineers Joint Contract Documents Council (No. EJCDC C-700, 2018 Edition) as included in this Section.

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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.

SECTION 00 71 00
SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. EJCDC C-700, 2018 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

SC-1 DEFINITIONS AND TERMINOLOGY

The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract (EJCDC C-700, 2018 Edition) have the meanings assigned to them in the General Conditions.

SC-2.02 COPIES OF DOCUMENTS

Delete Paragraph 2.02 A of the General Conditions and insert the following in its place:

OWNER shall furnish to CONTRACTOR up to 5 copies of the contract Documents which may include bound reduced drawings. Additional quantities of the Contract Documents will be furnished at reproduction cost.

Add the following new paragraphs immediately after paragraph 2.02.B:

C. OWNER shall not furnish to CONTRACTOR published Contract Documents which include the Manual of Standard Plans and the Manual of Standard Specifications. Such documents shall be purchased separately by the CONTRACTOR.

D. Copies of all Contract Documents including the Manual of Standard Plans and the Manual of Standard Specifications shall be provided on site by the CONTRACTOR.

SC-2.03 BEFORE STARTING CONSTRUCTION

Add the following new paragraph immediately after paragraph 2.03.A:

B. Field Office: An on-site field office is not required; however, CONTRACTOR shall provide and maintain a telephone in the field during performance of the Work such that ENGINEER may always contact CONTRACTOR for transmittal of plans, instructions and dissemination of project information.

SC-3.03 REPORTING AND RESOLVING DISCREPANCIES

Add the following new paragraph immediately after paragraph 3.03.B:

3.03.C. In the event of an inconsistency between provisions in any of the Contract Documents, the order of precedence shall be established by the most stringent of the criteria and conditions.

SC-4.01 COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED

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

The Contract Times will commence to run on the date indicated in the Notice to Proceed. Any Work undertaken by CONTRACTOR prior to the date indicated in the Notice to Proceed will be entirely at his own risk.

SC-4.05 DELAY'S IN CONTRACTORS PROGRESS

Delete in its entirety 4.05.C.2 and add the following paragraph:

2. Delays related to weather;

a. A rain, windstorm, high water or other natural phenomenon which might reasonably have been anticipated from historical records of the general locality shall not be construed as abnormal. It is hereby agreed that all disruptive weather events with an average interval of five years or more between their occurrence and the occurrence of a similar event of equal or greater magnitude cannot be reasonably anticipated. For the purposes of this contract, weather information and historical data for an area in question shall be assumed to be the same as that measured at the nearest or most applicable record station of the Environmental Data Service of the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

SC-5.03 SUBSURFACE AND PHYSICAL CONDITIONS

Add the following new paragraph(s) within paragraph 5.03.A:

4. No geotechnical report was prepared for this project.

SC-6.01 PERFORMANCE, PAYMENT, AND OTHER BONDS

SC-6.01. Delete section 6.01 of the General Conditions in its entirety and insert the following in its place:

- A. Prior to OWNER executing the Agreement, CONTRACTOR shall file with the OWNER a good and sufficient performance Bond and a payment Bond, each in the sum of not less than 100 percent of the Contract Price.
- B. The Bonds shall be executed by the CONTRACTOR and secured by a company duly and regularly authorized to do a general surety business in the State of Utah and either (i) named in the current U.S. Treasury Department's listing of approved sureties (Department Circular 570) (as amended) with an underwriting limitation equal to or greater than the Contract Price which the Bond guarantees, or (ii) with a current "A-" rating or better in A.M. Best Co., Inc's. Best Insurance Reports, Property and Casualty Edition.
- C. The Performance Bond shall guarantee the faithful performance of the Construction Contract by the CONTRACTOR and the payment Bond shall guarantee the payment of labor and materials. The Bonds shall inure by their terms to the benefit of the OWNER. Neither this nor any other provision requiring a performance Bond shall be construed to create any rights in any third-party Claimant as against the OWNER for performance of the Work under the Construction Contract.
- D. If the surety on any Bond furnished by CONTRACTOR is subject to any proceeding under the Bankruptcy Code (Title 11, United States Code) or becomes insolvent or its right to do business is terminated in the State of Utah or it ceases to meet the requirements of this Article, CONTRACTOR shall, within 15 days thereafter, substitute another Bond and surety, both of which must be acceptable to OWNER.

SC-6.03 CONTRACTOR'S INSURANCE

The requirements of General Conditions paragraph 6.03 for contractor's insurance are modified and supplemented as follows:

- A. In General: All policies of insurance provided shall be issued by insurance companies qualified to do business in the State of Utah and listed on the U.S. Treasury Department's current listing of approved sureties (Department of Circular 570) (as amended), or having a general policy holder's rating of not less than "A-" in the most current available A.M. Best Co, Inc.'s, Best Insurance Report. Except in the case of worker's compensation insurance, the OWNER shall be included as an additional named insured in all insurance policies. CONTRACTOR shall furnish copies of certificates of insurance concurrent with or prior to the signing of the Agreement. The certificates shall name the OWNER as the certificate holder and as an additional insured (except in the case of workers compensation insurance). If requested, CONTRACTOR shall also furnish copies of the insurance policies secured for the Work.
- B. Worker's Compensation Insurance: Statutory workers' compensation insurance (Part A). Such insurance shall also include employer's liability (Part B) insurance in a limit of not less than \$1,000,000 for each: accident, disease, employee. No owner or officer may be excluded.
- C. Public Liability and Property Damage Insurance: CONTRACTOR shall secure and maintain during the life of the Construction Contract and at all times thereafter when CONTRACTOR may be correcting, removing or replacing Defective Work, a comprehensive general public liability and property damage insurance policy. The policy shall protect the CONTRACTOR, the OWNER, the ENGINEER, and any Subcontractor performing work covered by the Construction Contract from claims for damages for personal injury, including accidental death, and from claims for property damage which may arise from CONTRACTOR's operations under this Construction Contract, whether such operations be by the CONTRACTOR itself or by any Subcontractor or by anyone directly or indirectly employed by either of them.

Commercial general liability insurance on an occurrence basis arising out of claims for bodily injury (including death) and property damage. Such insurance shall provide coverage for ongoing operations and products-completed operations, blanket contractual, broad form property damage, personal and advertising injury, independent contractors and sudden and accidental pollution liability [pollution liability arising out of a hostile fire] with not less than \$3,000,000 per occurrence limit combined bodily injury and property damage, with not less than \$5,000,000 aggregate limit, provided the general policy aggregate shall apply separately to the CONTRACTOR on a per project basis. Any aggregate limit that does not apply separately to the premises shall be at least double the required per occurrence limit.

- D. Automotive Public Liability Insurance: Automobile liability insurance for the CONTRACTOR's or any Subcontractor's liability arising out of the use of owned (if any), leased (if any), non-owned and hired vehicles of the CONTRACTOR, with no less than \$3,000,000 limit per accident for combined bodily injury and property damage and containing appropriate no-fault insurance provisions wherever applicable. All owned and/or leased automobiles shall be covered using symbol "1" (any auto).

- E. Excess Liability Insurance: The amounts of insurance required in the foregoing subsections B, C and D this subsection may be satisfied by the CONTRACTOR purchasing coverage in the amounts specified or by any combination of primary and excess insurance, so long as the total amount of insurance meets the required limits specified above.
- F. Environmental (Pollution) Liability Insurance: Environmental liability insurance for the CONTRACTOR's liability arising out of their operations in an amount not less than \$2,000,000 each claim, \$2,000,000 aggregate. Coverage shall apply to all operations undertaken by the CONTRACTOR.
- G. Builder's Risk: The Project involves construction which does not require the CONTRACTOR to provide builder's risk insurance.
- H. Insurance Provisions
1. Additional Insured Endorsements: All policies of liability insurance required to be maintained by the CONTRACTOR shall be endorsed to name the OWNER as additional insured for ongoing operations (ISO CG 20 10 or equivalent) and completed operations (ISO CG 20 37 or equivalent) (except for insurance policies required in this Section B, D and F).
 2. Primary and Non-Contributory Endorsements: The CONTRACTOR's insurance coverage shall be a primary insurance as respects to the OWNER, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the OWNER, its officers, officials, employees or volunteers shall be in excess of the contracting party's insurance and shall not contribute with it.
 3. Waiver of Subrogation Endorsements: The CONTRACTOR hereby waives any and every claim for recovery from the OWNER, Lenders and their respective offices and employees for any and all loss or damage covered by any of the insurance policies to be maintained under this CONTRACTOR agreement to the extent that such loss or damage is recovered under any such policy. To the extent the foregoing waiver would preclude coverage under any insurance required by this Section, the CONTRACTOR shall give written notice of the terms of such waiver to each insurance company which has issued, or which may issue in the future, any such policy of insurance (if such notice is required by the insurance policy) and shall cause each such insurance policy to be properly endorsed, or to otherwise contain one or more provisions that prevent the invalidation of the insurance coverage by reason of such a waiver.
 4. Severability of Interests: The contracting party's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respects to the limits of the insurer's liability.
 5. Deductibles and Self-Insured Retentions: Any deductibles or self-insured retention, exceeding 5-percent limit of policy, must be declared to and approved by the OWNER. At the option of the OWNER, either; the insurer may be required to reduce or eliminate such deductibles or self-insured retention as respects the OWNER, its officers, officials and employees; or the contracting party may be required to procure a bond guaranteeing payment of losses and related investigations, claim distribution and defense expenses.

6. Notice of Incident or Accident: Contracting party shall agree to disclose to the OWNER, all incidents or occurrences of accident, injury, and/or property damage, regardless of whether such incidents are submitted as claims under the CONTRACTOR's insurance policies.
7. Evidence and Verification of Insurance: On or before the effective date of each policy and on an annual basis at least 10 days prior to each policy anniversary, the CONTRACTOR shall furnish the OWNER with (1) certificates of insurance or binders, in a form acceptable to the OWNER, evidencing all of the insurance required by the provisions of this Section. CONTRACTOR shall provide a certificate of insurance verifying completed operations coverage for a period of not less than two years after project completion. Certificates and endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be furnished to and accepted by the OWNER before work commences. The OWNER reserves the right to require complete, certified copies of all required insurance policies, with all endorsements, at any time.
8. Claims-Made Policies: If any policy is a claims-made policy, the policy shall provide the CONTRACTOR the right to purchase, upon cancellation or termination by refusal to renew the policy, an extended reporting period of not less than two years. The CONTRACTOR agrees to purchase such an extended reporting period if needed to ensure continuity of coverage. The CONTRACTOR's failure to purchase such an extended reporting period as required by this paragraph shall not relieve it of any liability under this Contract. If the policy is a claims-made policy, the retroactive date of any such policy shall be not later than the date this Contract is executed by the parties hereto. If the CONTRACTOR purchases a subsequent claims-made policy in place of any prior claims-made policy, the retroactive date of such subsequent policy shall be no later than the date this Contract is executed by the parties hereto.
9. Policy Cancellation and Change: All insurance policies shall be endorsed so that if at any time they are canceled, such cancellation shall not be effective for the OWNER for 30 days, except for non-payment of premium which shall be for 10 days. If any material change in coverage should occur, the CONTRACTOR shall provide notice of any material change in coverage to the OWNER immediately.
10. Liability Limits: The liability limits shown in this Section are minimum requirements. To the extent the CONTRACTOR maintains, or causes to be maintained on its behalf, liability limits which are higher than the minimum limits stated in this Section, the higher liability limits shall be required of the CONTRACTOR.
11. Failure to Maintain Insurance: In the event the CONTRACTOR fails, or fails to cause others on their behalf, to take out or maintain the full insurance coverage required by this Section, the OWNER, upon 30 days' prior notice (unless the required insurance would lapse within such period, in which event notice will be given as soon as reasonably possible) to the CONTRACTOR of any such failure, may (but shall not be obligated to) take out the required policies of insurance and pay the premiums on the same. All amounts so advanced thereof by the OWNER shall become an additional obligation of the CONTRACTOR to the OWNER, and the CONTRACTOR shall pay such amounts to the OWNER, together with interest

thereon from the date so advanced. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the OWNER, its officers, officials, employees or volunteers.

12. No Duty to Verify or Review: No provision of this Section or any provision of any Document related to this agreement shall impose on the OWNER any duty or obligation to verify the existence or adequacy of the insurance coverage maintained by the CONTRACTOR, nor shall OWNER be responsible for any representations or warranties made by or on behalf of the CONTRACTOR to any insurance company or underwriter. Any failure on the part of the OWNER to pursue or obtain the evidence of insurance required by this agreement from the CONTRACTOR and/or failure of the OWNER to point out any non-compliance of such evidence of insurance shall not constitute a waiver of any of the insurance requirements in this agreement.
13. Subcontractors: CONTRACTOR shall include all subcontractors as an insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.
14. Indemnification / Liability: CONTRACTOR shall indemnify and hold harmless the OWNER, its officers, agents, employees and volunteers from all damages, costs or expenses in law or equity, including attorney's fees, that may at any time arise or be set up because of damages to property, bodily injury or personal injury received by reason of or in the course of providing services to the OWNER but only to the extent caused by any willful, negligent or wrongful act or omission of the contracting party, any of their employees or any subcontractors.

SC-6.04 PROPERTY INSURANCE

SC-6.04. A. Delete paragraph 6.04.A of the General Conditions in its entirety and insert the following in its place:

- A. CONTRACTOR shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. This insurance shall:
 1. Include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
 2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework, and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work. Provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER; and
 5. allow for partial utilization of the Work by OWNER;
 6. include testing and startup; and
 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.
- B. CONTRACTOR shall be responsible for any deductible or self-insured retention.
- C. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with this paragraph SC-6.04 shall comply with the requirements of paragraph 6.04.C of the General Conditions.

SC-6.04. E. Delete paragraph 6.04 .E of the General Conditions in its entirety.

SC - 7.07 CONCERNING SUBCONTRACTORS AND SUPPLIERS

Add the following paragraphs at the end 7.07 of the General Conditions:

N. Subcontractor Agreements: Subcontractors will not be recognized as having a direct relationship with the Owner. The persons engaged in the work, including employees of subcontractors and suppliers, will be considered employees of the CONTRACTOR and their work shall be subject to the provisions of the contract. References in the project manual to actions required of subcontractors, manufacturers, suppliers, or any person other than the CONTRACTOR, the Owner or the Engineer shall be interpreted as requiring that the CONTRACTOR shall require such subcontractor, manufacturer, supplier or person to perform the specified action.

The CONTRACTOR shall be responsible for the adequacy, efficiency and sufficiency of subcontractors, manufacturers, suppliers and their employees, employed by the CONTRACTOR.

SC - 7.13 SAFETY AND PROTECTION

Add the following language at the end of the first sentence of the first paragraph of 7.13 of the General Conditions:

In particular the CONTRACTOR shall be responsible for observing and supervising all safety precautions in accordance with regulations established by the Occupational Safety and Health Administration (OSHA).

SC-7.18 INDEMNIFICATION

Paragraphs 7.18.A, & B of the General Conditions shall be deleted in their entirety and replaced with the following:

- A. To the fullest extent permitted by law, the CONTRACTOR shall indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses and expense including but not limited to attorney's fees arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and (b) is caused in whole or in part by any negligent act, errors or omission of the CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused by a party indemnified hereunder.
- B. In any and all claims against the OWNER or the ENGINEER or any of their agents or employees by an employee of the CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under worker's compensation acts, disability benefit acts or other employee benefit acts.
- C. The obligations of the CONTRACTOR under subparagraph SC-7.18.A above, shall not extend to the liability of the ENGINEER, his agents or employees arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications.
- D. Governmental Immunity: OWNER advises that it is a governmental entity in the State of Utah and is bound by the provisions of the Utah Governmental Immunity Act (Title 63G, Chapter 7, Utah Code Annotated, 1953, as amended) and does not waive any procedural or substantive defense or benefit provided or to be provided by the Governmental Immunity Act or comparable legislative enactment, including without limitation, the provisions of Section 63-G-7-604 regarding limitation of judgments. Any indemnity and insurance obligations incurred by OWNER under this contract are expressly limited to the amounts identified in the Act.

SC-8.02 COORDINATION

Add a new paragraph immediately after paragraph 8.02 of the General Conditions which is to read as follows:

- B. Should CONTRACTOR cause damage to the work or property of any separate contractor at the site, or should any claim arising out of CONTRACTOR's performance of the Work at the site be made by any separate contractor against CONTRACTOR, OWNER, ENGINEER, ENGINEER's Consultants, the Construction Coordinator or any other person, CONTRACTOR shall promptly attempt to settle with such other contractor by agreement, or otherwise resolve the dispute by arbitration or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold OWNER, ENGINEER, ENGINEER's Consultants and the Construction Coordinator harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any separate contractor against OWNER, ENGINEER, ENGINEER's Consultants or the Construction Coordinator to the extent based on a claim arising out of CONTRACTOR's performance of the Work. Should a separate contractor cause damage to the Work or property of CONTRACTOR or should the performance of Work by any separate contractor at the site give rise to any other claim,

CONTRACTOR shall not institute any action, legal or equitable, against OWNER, ENGINEER, ENGINEER's Consultants or the Construction Coordinator or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from OWNER, ENGINEER, ENGINEER's Consultants or the Construction Coordinator on account of any such damage or claim. If CONTRACTOR is delayed at any time in performing or furnishing Work by any act or neglect of a separate contractor and OWNER and CONTRACTOR are unable to agree as to the extent of any adjustment in Contract Times attributable thereto, CONTRACTOR may make a claim for an extension of times in accordance with Article 12. An extension of the Contract Times shall be CONTRACTOR's exclusive remedy with respect to OWNER, ENGINEER, ENGINEER's Consultants and Construction Coordinator for any delay, disruption, interference or hinderance caused by any separate contractor. This paragraph does not prevent recovery from OWNER, ENGINEER, ENGINEER's Consultant or Construction Coordinator for activities that are their respective responsibilities.

SC-9.01 COMMUNICATIONS TO CONTRACTOR

SC-9.01. Delete section 9.01.A of the General Conditions in its entirety and insert the following in its place:

- A. Plan or method of work suggested by the OWNER or the ENGINEER to the CONTRACTOR but not specified or required, if adopted or followed by the CONTRACTOR in whole or in part, shall be used at the risk and responsibility of the CONTRACTOR. The OWNER and the ENGINEER assume no responsibility therefore and in no way will be held liable for any defects in the work which may result from or be caused by use of such plan or method of work.

SC-10.03 RESIDENT PROJECT REPRESENTATIVE

Add the following language to section 10.03 of the General Conditions.

1. ENGINEER may furnish a full time Resident Project Representative (RPR) to represent ENGINEER at the project site. The duties and responsibilities of the RPR are limited to those of ENGINEER in ENGINEER's agreement with OWNER and in the construction Contract documents, and are further limited and described as follows:

A. General

RPR is ENGINEER's agent at the site, will act as directed by and under the supervision of ENGINEER, and will confer with ENGINEER regarding RPR's actions. RPR's dealings in matters pertaining to the on-site work shall in general be with ENGINEER and CONTRACTOR keeping OWNER advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR. RPR shall generally communicate with OWNER with the knowledge of and under the direction of ENGINEER.

B. Duties and Responsibilities of RPR

1. Schedules: Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by CONTRACTOR and consult with ENGINEER concerning acceptability.

2. Conferences and Meetings: Attend meetings with CONTRACTOR, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
3. Liaison:
 - a. Serve as ENGINEER's liaison with CONTRACTOR, working principally through CONTRACTOR's superintendent and assist in understanding the intent of the Contract Documents; and assist ENGINEER in serving as OWNER's liaison with CONTRACTOR when CONTRACTOR's operations affect OWNER's on-site operations.
 - b. Assist in obtaining from OWNER additional details or information, when required for proper execution of the Work.
4. Shop Drawings and Samples:
 - a. Record date of receipt of Shop Drawings and samples.
 - b. Receive samples which are furnished at the site by CONTRACTOR, and notify ENGINEER of availability of samples for examination.
 - c. Advise ENGINEER and CONTRACTOR of the commencement of any Work requiring a Shop Drawing or sample if the submittal has not been approved by ENGINEER.
5. Review of Work, Rejection of Defective Work, Inspections and Tests:
 - a. Conduct on-site observations of the work in progress to assist ENGINEER in determining if the Work is in general proceeding in accordance with the Contract Document.
 - b. Report to ENGINEER whenever RPR believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise ENGINEER of Work that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
 - c. Verify that tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate personnel, and that CONTRACTOR maintains adequate records thereof; and observe, record and report to ENGINEER appropriate details relative to the test procedures and startups.
 - d. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to ENGINEER.
6. Interpretation of Contract Documents: Report to ENGINEER when clarifications and interpretations of the Contract Documents are needed and transmit to CONTRACTOR clarifications and interpretations as issued by ENGINEER.

7. Modifications: Consider and evaluate CONTRACTOR's suggestions for modifications in Drawings or Specifications and report with RPR's recommendations to ENGINEER. Transmit to CONTRACTOR decisions as issued by ENGINEER.
8. Records:
 - a. Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, ENGINEER's clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.
 - b. Keep a diary or log book, recording CONTRACTOR hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to ENGINEER.
 - c. Record names, addresses and telephone numbers of all CONTRACTORS, subcontractors and major suppliers of materials and equipment.
9. Reports:
 - a. Furnish ENGINEER periodic reports as required of progress of the Work and of CONTRACTOR's compliance with the progress schedule and schedule of Shop Drawing and sample submittals.
 - b. Consult with ENGINEER in advance of scheduled major tests, inspections or start of important phases of the Work.
 - c. Draft proposed Change Orders and Work Directive Changes, obtaining backup material from CONTRACTOR and recommend to ENGINEER Change Orders, Work Directive Changes, and Field Orders.
 - d. Report immediately to ENGINEER and OWNER upon the occurrence of any accident.
10. Payment Requests: Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and forward with recommendations to ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.
11. Certificates, Maintenance and Operation Manuals: During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to ENGINEER for review and forwarding to OWNER prior to final payment for the Work.
12. Completion:

- a. Before ENGINEER issues a Certificate of Substantial Completion, submit to CONTRACTOR a list of observed items requiring completion or correction.
- b. Conduct final inspection in the company of ENGINEER, OWNER, and CONTRACTOR and prepare a final list of items to be completed or corrected.
- c. Observe that all items on final list have been completed or corrected and make recommendations to ENGINEER concerning acceptance.

SC-10.07 Limitations on Engineer's Authority and Responsibilities

Add the following language to section 10.07 of the General Conditions.

Resident Project Representative:

1. Shall not authorize any deviation from the Contract Documents or substitution of materials or equipment, unless authorized by ENGINEER.
2. Shall not exceed limitations of ENGINEER's authority as set forth in the Agreement or the Contract Documents.
3. Shall not undertake any of the responsibilities of CONTRACTOR, subcontractors or CONTRACTOR's superintendent.
4. Shall not advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.
5. Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.
6. Shall not accept Shop Drawings or sample submittals from anyone other than CONTRACTOR.
7. Shall not authorize OWNER to occupy the Project in whole or in part.
8. Shall not participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by ENGINEER.

SC-13.03 UNIT PRICE WORK

Paragraph 13.03.E of the General Conditions is hereby deleted in its entirety and the following is substituted in lieu thereof:

- E. The unit price of an item of Unit Price Work shall be subject to re-evaluation and adjustment under the following conditions:
1. If the total cost of a particular item of Unit Price Work amounts to 25% or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by CONTRACTOR differs by more than 25% from the estimated quantity of such item indicated in the Agreement; and
 2. If there is no corresponding adjustment with respect to any other item of Work; and
 3. If CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof; or if OWNER believes that the quantity variation entitles OWNER to an adjustment in the unit price, either OWNER or CONTRACTOR may make a claim for an adjustment in the Contract Price in accordance with Article 10 if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.

SC-15.01.B APPLICATIONS FOR PAYMENT

The first sentence of Paragraph 15.01.B.1 of the General Conditions is hereby deleted in its entirety and the following is substituted in lieu thereof:

1. At least thirty (30) days before the date established 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. All applications for payment shall be accompanied by partial lien releases on the project from all Subcontractors, Employees, Suppliers, and Contractors who have pre-liened the work.

Modify Paragraph 15.01.B.4 to read as follows:

4. A retainage in the amount of five percent (5%) will be applied to the CONTRACTOR's progress payments. The retainage is not payable by the OWNER to the CONTRACTOR until all requirements for final payment have been satisfied.

SC-15.01.D PAYMENT BECOMES DUE

Paragraph 15.01.D of the General Conditions is hereby deleted in its entirety and the following is substituted in lieu thereof:

ENGINEER will, within ten days after receipt of each Application for Payment, 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. Twenty days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, but not prior to the day indicated in Section 5.1 of

the "Agreement", the amount recommended will (subject to the provisions of the last sentence of paragraph 14.07) become due and when due will be paid by OWNER to CONTRACTOR.

SC-18.01. GIVING NOTICE

Paragraph 18.01 of the General Conditions is hereby deleted in its entirety and the following is substituted in lieu thereof:

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly received if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or it is received by registered or certified mail postage prepaid, or by facsimile or email.

SC-18.03. PUBLIC CONTRACT BOYCOTT RESTRICTIONS COMPLIANCE

- A. In accordance with Section 63G-27-101 et seq., Utah Code Ann., by signing the Contract Agreement CONTRACTOR hereby certifies that it is not currently engaged in a boycott of the State of Israel, or companies or individuals doing business in or with the State of Israel, or companies authorized by, licensed by, or organized under the laws of the State of Israel to do business, and that it agrees not to engage in a boycott of the State of Israel for the duration of the Contract Agreement. CONTRACTOR understands that this provision does not apply to it if its contract has a value less than \$100,000, or if CONTRACTOR has fewer than 10 full-time employees."

- END OF SECTION -

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DOCUMENT 00 72 00
MODIFICATIONS TO GENERAL CONDITIONS
(Supplementary Conditions)

This document changes provisions specified in the General Conditions in the Manual of Standard Specifications published by the Utah Chapter of the American Public Works Association.

Add the following paragraphs to Article 2.2 (page 20).

2.2 COPIES OF DOCUMENTS

- B. OWNER shall not furnish to CONTRACTOR published Contract Documents which include the Manual of Standard Plans and the Manual of Standard Specifications. Such documents shall be purchased separately by the CONTRACTOR.
- C. Copies of all Contract Documents including the Manual of Standard Plans and the Manual of Standard Specifications shall be provided on site by the CONTRACTOR.

Modify paragraph 2.5C of the General Conditions (page 21) to read as follows.

2.5 BEFORE STARTING CONSTRUCTION

- C. Field Office: An on-site field office is not required, however, CONTRACTOR shall provide and maintain a telephone in the field during performance of the Work such that ENGINEER may always contact CONTRACTOR for transmittal of plans, instructions and dissemination of project information.

Modify Article 5.1 (page 28) to read as follows.

5.1 PERFORMANCE, PAYMENT AND OTHER BONDS

- A. Prior to OWNER executing the Agreement, CONTRACTOR shall file with the OWNER a good and sufficient performance Bond and a payment Bond, each in the sum of not less than 100 percent of the Contract Price.
- B. The Bonds shall be executed by the CONTRACTOR and secured by a company duly and regularly authorized to do a general surety business in the State of Utah and either (i) named in the current U.S. Treasury Department's listing of approved sureties (Department Circular 570) (as amended) with an underwriting limitation equal to or greater than the Contract Price which the Bond guarantees, or (ii) with a current "A-" rating or better in A.M. Best Co., Inc's. Best Insurance Reports, Property and Casualty Edition.

- C. The Performance Bond shall guarantee the faithful performance of the Construction Contract by the CONTRACTOR and the payment Bond shall guarantee the payment of labor and materials. The Bonds shall inure by their terms to the benefit of the OWNER. Neither this nor any other provision requiring a performance Bond shall be construed to create any rights in any third party Claimant as against the OWNER for performance of the Work under the Construction Contract.
- D. If the surety on any Bond furnished by CONTRACTOR is subject to any proceeding under the Bankruptcy Code (Title 11, United States Code) or becomes insolvent or its right to do business is terminated in the State of Utah or it ceases to meet the requirements of this Article, CONTRACTOR shall, within 15 days thereafter, substitute another Bond and surety, both of which must be acceptable to OWNER.

Modify Article 5.2 (page 28) to read as follows.

5.2 INSURANCE

- A. In General: All policies of insurance provided shall be issued by insurance companies qualified to do business in the State of Utah and listed on the U.S. Treasury Department's current listing of approved sureties (Department of Circular 570) (as amended), or having a general policy holder's rating of not less than "A-" in the most current available A.M. Best Co, Inc.'s, Best Insurance Report. Except in the case of worker's compensation insurance, the City shall be included as an additional named insured in all insurance policies. Both the Worker's Compensation and Public Liability and Property Damage policies shall include a Waiver of Subrogation. CONTRACTOR shall furnish copies of certificates of insurance concurrent with or prior to the signing of the Agreement. The certificates shall name the OWNER as the certificate holder and as an additional insured (except in the case of workers compensation insurance). If requested, CONTRACTOR shall also furnish copies of the insurance policies secured for the Work.
- B. Worker's Compensation Insurance: In addition to other required insurance, the CONTRACTOR shall obtain and maintain during the life of the Construction Contract worker's compensation insurance as required by Laws and Regulations for all of CONTRACTOR's employees employed at the site of the Work, and in case any Work is subcontracted, the CONTRACTOR shall require the Subcontractor similarly to provide worker's compensation insurance for all of the latter's employees, unless such employees are covered by protection as required by Laws and Regulations.
- C. Public Liability and Property Damage Insurance: CONTRACTOR shall secure and maintain during the life of the Construction Contract and at all times thereafter when CONTRACTOR may be correcting, removing or replacing Defective Work, a comprehensive general public liability and property damage insurance policy. The policy shall protect the CONTRACTOR, the OWNER, the ENGINEER, and any Subcontractor performing work covered by the Construction Contract from claims for damages for personal injury, including accidental death, and from claims for property damage which may arise from CONTRACTOR's operations under this Construction

Contract, whether such operations be by the CONTRACTOR itself or by any Subcontractor or by anyone directly or indirectly employed by either of them. Unless specified otherwise in the Supplementary Conditions, the minimum amounts of such insurance shall be \$5,000,000 for each occurrence, and \$10,000,000 general aggregate and \$10,000,000 products/completed operations aggregate. **The insurance for this Project is not required to include specific insurance for environmental liabilities.**

- D. Automotive Public Liability Insurance: Whenever CONTRACTOR or any Subcontractor shall use and operate owned, hired, or non-owned automobiles, trucks or other vehicles on public streets and highways in complying with the terms and conditions of the Construction Contract, CONTRACTOR or each Subcontractor shall carry automobile public liability insurance with limits not less than \$1,000,000.00 per occurrence.
- E. Insurance Non-cancelable for 30 Days: Each policy of insurance provided pursuant to the Contract Documents shall be absolutely non-cancelable for a period of not less than 30 days after notice of cancellation and shall contain the following provision or one substantially the same as the following:

"This policy shall not be subject to cancellation, change, or reduction of coverage by the other party or parties hereto, unless notice, as defined herein, is sent to the OWNER, with a copy to the ENGINEER and the OWNER's attorney."

- F. Builder's Risk: CONTRACTOR agrees to and assumes the risk of loss for any damage or loss to the Work and Project by any means or occurrence until Substantial Completion. CONTRACTOR further agrees to obtain builder's risk or course of construction insurance in the total amount of the Contract Price.

END OF DOCUMENT

DIVISION 1

GENERAL REQUIREMENTS

**SECTION 01 11 00
GENERAL REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This section describes the project and the work to be performed under this contract. Detailed requirements and extent of work are stated in the applicable Specification sections and shown on the Drawings.
- B. Construct work as described in the Contract Documents and as specified herein.
 - 1. Provide the materials, equipment, and incidentals required to make the project fully functional and operational.
 - 2. Provide the labor, equipment, tools, and consumable supplies required for a complete project.
 - 3. Test and place the completed project in operation.
 - 4. Provide the special tools, spare parts, lubricants, supplies, or other materials as required.
 - 5. Drawings and specifications do not indicate or describe all of the work required to complete the project. Any additional details required for the correct installation of selected products are to be provided by the Contractor and coordinated with the Engineer.

1.02 ORGANIZATION AND INTERPRETATION OF CONTRACT DOCUMENTS

- A. Specifications included in these Contract Documents establish the performance, quality requirements, location and general arrangement of materials and equipment, and establish the minimum standards of quality of workmanship and appearance.
- B. Specification sections have not been divided into groups for work of subcontractors or various trades.
- C. A part of the work that is necessary or required to make each installation satisfactory and operable for its intended purpose, even though it is not specifically included in the Specifications or shown on the Drawings, shall be performed as incidental work as if it were described in the Contract Documents.
- D. Whenever in the Technical Specifications, requirements are expressed with active verbs and no subjects, the words, "The Contractor shall," have been omitted as a matter of style, and it is intended that the Contractor is the party responsible for taking the action required.

1.03 DESCRIPTION OF PROJECT

- A. Work under this contract document consists of the following primary tasks:
 - 1. Installation of one (1) fully operational impressed current deep anode groundbed, new well casing negative lead, new well casing test lead, and new electrical power equipment as shown on the Drawings and provided in the specifications.

2. Site and surface restoration for Work activities in all areas including, but not limited to asphalt, sidewalks, lawns, and unimproved areas.
- B. Contractor shall be responsible for providing all materials and equipment to route and connect electrical power service between the existing breaker panel to the new rectifier.
- C. All electrical work shall be performed in accordance with the project specifications, Drawings, and Rocky Mountain Power requirements. Contractor shall coordinate electrical inspections with power company and local agencies as required to provide a fully functional system, meeting all applicable requirements.

1.04 SPECIFIC WORK REQUIRED

- A. CONTRACTOR shall provide labor, equipment, and materials to complete the installations and work as defined in the Contract Documents and shown on the Drawings.
- B. CONTRACTOR shall obtain all permits from local, county, and State entities, as required, before beginning work. Submit all permits at least 10 business days in advance of beginning work.
- C. CONTRACTOR shall coordinate with the Engineer and South Salt Lake City (SSLC) personnel before beginning work to identify temporary work easements and permanent easements.
- D. Where required, Contractor shall coordinate with local Power Company.
- E. Completion of all work shall result in fully functioning equipment and systems.
- F. The following specific work is included in the project:
 1. Installation of one (1) impressed current deep anode groundbed at SSLC 700 East Well Facility, located near S 700 East and Springview Drive, South Salt Lake, Utah at GPS Lat. 40.701618°, Long. -111.871687°, as shown on the Drawings,
 - a. Deep well anode system.
 - b. Equipment includes, but is not limited to, anode junction boxes, electrical conduit, and associated wire/cables.
 - c. New Negative lead to well casing.
 - d. New Positive lead to new deep well anode system
 - e. New test lead to well casing.
 - f. Ancillary equipment and materials associated with well drilling and not specifically identified as provided by SSLC.

1.05 SCHEDULE OF WORK

- A. Work will be performed under the following schedule:
 - 1. Anticipated Notice to Proceed: October 14, 2024
 - 2. Substantial Completion: 60 days from Notice to Proceed
 - 3. Final Completion: 30 days from Substantial Completion.
- B. Contractor shall prepare and submit a project schedule along with a list of proposed personnel and equipment which indicate the ability to meet the project schedule.

1.06 ACTUAL DAMAGES

- A. Actual damages will be assessed in accordance with the Agreement, General Conditions, and Supplemental Conditions of Owner's Contract Document.

1.07 PROJECT MEETINGS

- A. Preconstruction Conference:
 - 1. Prior to the commencement of WORK at the site, a preconstruction conference will be held at a mutually agreed time and place and shall be attended by the CONTRACTOR's Project Manager, CONTRACTOR's superintendent, and Subcontractors as the CONTRACTOR deems appropriate. Other attendees will be:
 - a. ENGINEER and the Project Representative.
 - b. Representatives of the OWNER.
 - c. Government representatives as appropriate.
 - d. Others as requested by CONTRACTOR, OWNER, or ENGINEER.
 - 2. The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The complete agenda will be furnished to the CONTRACTOR prior to the meeting date. The CONTRACTOR should be prepared to discuss all of the items listed below.
 - a. CONTRACTOR's tentative schedules.
 - b. Discussion of CONTRACTOR's submittals provided prior to meeting.
 - c. Maintaining record drawings.
 - d. Field decisions and change orders.
 - e. Use of project site, office and storage areas, security, housekeeping, and OWNER's needs.
 - f. Major equipment deliveries and priorities.
 - g. CONTRACTOR's assignments for safety and first aid. Progress Meetings
 - 3. The OWNER's REPRESENTATIVE shall schedule weekly on-site progress meetings with the CONTRACTOR and OWNER as requested or as required by progress of the WORK. The CONTRACTOR, ENGINEER, and all Subcontractors active on the site must attend each meeting. CONTRACTOR may at its discretion request attendance by representatives of its Suppliers, manufacturers, and other Subcontractors.
 - 4. The OWNER's REPRESENTATIVE shall conduct the meetings and will arrange for keeping and distributing the minutes. The purpose of the meetings will be to review the

progress of the WORK, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop. During each meeting, the CONTRACTOR is required to present any issues which may impact his work, with a view to resolve these issues expeditiously.

PART 2 PRODUCTS - (Not Used)

PART 3 EXECUTION - (Not Used)

END OF SECTION

**SECTION 01 25 00
MEASUREMENT AND PAYMENT**

PART 1 GENERAL

1.01 ADMINISTRATIVE SUBMITTALS

- A. Application for Payment: In accordance with the General Conditions and as specified herein.
- B. Final Application for Payment: As specified herein.

1.02 APPLICATION FOR PAYMENT

- A. Reference applicable paragraphs in General Conditions.
- B. Preparation:
 - 1. Round values to nearest dollar.
 - 2. List each Change Order and Written Amendment executed prior to date of submission as separate line item. Totals to equal those shown on the Summary Sheet for each schedule as applicable.
 - 3. Submit Application for Payment, including a Transmittal Summary Form and detailed Application for Payment Form for each schedule as applicable, a listing of materials on hand for each schedule as applicable, and such supporting data as may be requested by ENGINEER.

1.03 MEASUREMENT - GENERAL

- A. Weighing, measuring, and metering devices used to measure quantity of materials for Work shall be suitable for purpose intended and conform to tolerances and specifications as specified in National Institute of Standards and Technology, Handbook 44.
- B. All materials which are specified for measurement by the cubic yard "measured in the vehicle" shall be hauled in vehicles of such type and size that the actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. All vehicles shall be loaded to at least their water level capacity. Loads hauled in vehicles not meeting the above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.
- C. Unit of measure shown on the Bid Form shall be as follows unless specified otherwise.

<u>Item</u>	<u>Method of Measurement</u>
CY	Cubic Yard-Field Measure by ENGINEER within the limits specified or shown
CY-VM	Cubic Yard-Measured in the Vehicle by Volume
EA	Each-Field Count by ENGINEER
GAL	Gallon-Field Measured by ENGINEER

<u>Item</u>	<u>Method of Measurement</u>
HR	Hour, Crew
HR-MAN	Hour, per Man
LB	Pound(s)-Weight Measure by Scale
LF	Linear Foot-Field Measure by ENGINEER
LS	Lump Sum-Unit is one; no measurement will be made
SF	Square Foot
SY	Square Yard
T	Ton-Weight Measure by Scale (2,000 pounds)

1.04 PAYMENT

- A. General: Progress payments will be made monthly on the date established at the preconstruction meeting.
- B. Following description of the Work included in the Payment of Unit Price items is not inclusive. When there is no separate Unit Price item in Bid Form for work necessary to complete a unit of Work shown or specified, such Work shall be furnished and installed. Full compensation for furnishing and installing such Work shall be considered as included in Contract Price and no additional compensation will be allowed, therefore.
- C. Payment for work performed will be based on bid costs from Bid Schedules.
- D. Bid Items:

1. Bid Schedule

No.	Bid Item	Description of Work Included
1	Mobilization	Includes all transportation, fuel, labor, and material costs for mobilization of equipment and materials to the project sites and as required for setup.
2	Cathodic Protection System SSLC 700 East Well – Deep Well Anode System, Rectifier, and Associated Equipment	Includes materials, equipment, and labor required for furnishing and installing a fully functional impressed current deep well anode cathodic protection system as shown on the Drawings, including all excavation, backfill, trenching, electrical connections, and surface restoration, complete.
3	Demobilization	Includes all transportation, fuel, labor, and material costs for demobilization of equipment and materials to the project sites and as required for setup.

1.05 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

- A. Payment will not be made for following:
 - 1. Loading, hauling, and disposing of rejected material.
 - 2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
 - 3. Rejected loads of material, including material rejected after it has been placed by reason of failure of CONTRACTOR to conform to provisions of Contract Documents.

4. Material not unloaded from transporting vehicle.
5. Defective Work not accepted by OWNER.
6. Material remaining on hand after completion of Work.

1.06 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Partial Payment: Reference the General Conditions. No partial payments will be made for materials and equipment delivered or stored unless Shop Drawings are acceptable to ENGINEER.
- B. Final Payment: Will be made only for materials incorporated in Work; remaining materials, for which partial payments have been made, shall revert to CONTRACTOR unless otherwise agreed, and partial payments made for those items will be deducted from final payment.

1.07 FINAL APPLICATION FOR PAYMENT

- A. Reference applicable paragraphs in the General Conditions, Section 01 70 00, CONTRACT CLOSEOUT, and as may otherwise be required in Contract Documents.
- B. Prior to submitting final application, make acceptable delivery of required documents, including but not limited to:
 1. Final Inventory of Materials Utilized at Each Project Site / Structure
 2. Contractor's Daily Quality Control and Inspection Reports
 - a. Organized by Site / Structure and Date

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01 26 00

CONTRACT MODIFICATION PROCEDURES

This specification changes a portion of Section 01 26 00 in the latest edition of Manual of Standard Specifications published by American Public Works Association. All other provisions of the Section remain in full force and effect.

Add the following articles to part 1.

1.9 CHANGE ORDER FORM

- A. Use the attached change order form (Form 01 26 01) when making any submittal to the ENGINEER.
- B. When a Change Order is more than 5% of the total Contract Amount or more than \$50,000.00, authorization from City Attorney's office is required.

SOUTH SALT LAKE CITY CONSTRUCTION CONTRACT CHANGE ORDER					Form 01 26 01	
Project Name:					Change Order #:	
Location:					Contract Date:	
Description:						
Time Extension		Contract Monies Allocated To Date (Information Only)				
CALENDAR		Original Contract		COs to Date		Current Contract Amount (Includes COs to date)
BASIS OF PAYMENT		Agreed Unit, DBE				
ITEM		ESTIMATED QTY. INCREASE/DECREASE		UNIT OF MEASUREMENT		UNIT PRICE
						AMOUNT INCREASE/DECREASE

TOTAL NET CHANGES (Dollar) =

CONTRACTOR		CITY PROJECT MANAGER		CITY ENGINEER	
Approved by Authorized Representative		Approved by Authorized Representative		Recommended for Approval>	
Signature:		Signature:		Approved <	
Title:		Title:		Signature:	
Date:		Date:		Date:	
MAYOR		CITY ATTORNEY'S OFFICE*		COMMENTS	
Recommended for Approval>		Approved by Authorized Representative			
Approved <		Signature:			
Signature:		Title:			
Date:		Date:			

*: Required when the Change Order is over 5% of the Contract Amount or over \$50,000.00

SECTION 01 30 00
SUBMITTALS

PART 1 GENERAL

1.01 GENERAL

- A. Reference applicable paragraphs of General Conditions.
- B. Inquiries: Direct to ENGINEER regarding procedure, purpose, or extent of Submittal.
- C. As provided in General Conditions, as specified herein, unless specified otherwise in Division 2 through Division 16, and as may otherwise be established during the preconstruction conference.
- D. OWNER's Authorization: At any time, OWNER may authorize changes to procedures and requirements for Submittals, as necessary to accomplish specific purpose of each Submittal. Such authorization will be by Field Order or Work Change Directive.
- E. Timeliness: Schedule and make submissions in accordance with requirements of individual Specification sections and in such sequence as to cause no delay in Work or in work of other contractors.
- F. Identification of Submittals:
 - 1. Complete, sign, and transmit with each Submittal package, one Transmittal of Contractor's Submittal Form attached at the end of this section.
 - 2. Identify each Submittal with numbering and tracking system approved by ENGINEER:
 - a. Sequentially number each Submittal.
 - b. Resubmission of a Submittal will have original number with sequential alphabetic suffix.
 - 3. Submittal Number Format: SSSSS_NN_V.
 - a. SSSSS: Representing section number.
 - b. NN: Submittal number (01 through 99).
 - c. V: Resubmission version with sequential alphabetic suffix.
 - 4. Show date of submission and dates of previous submissions.
 - 5. Show Project title and OWNER's contract identification and contract number.
 - 6. Show names of CONTRACTOR, Subcontractor or Supplier, and manufacturer as appropriate.

- G. Identify, as applicable, Contract Document section and paragraph to which Submittal applies.
- H. Incomplete Submittal Submissions:
1. At Engineer's sole discretion, ENGINEER will either (i) return the entire Submittal for CONTRACTOR's revision/correction and resubmission, or (ii) retain portions of the Submittal and request submission/resubmission of specified items or as noted thereon.
 2. Submittals which do not clearly bear CONTRACTOR's specific written indication of CONTRACTOR review and approval of Submittal or which are transmitted with an unsigned or uncertified submission form or as may otherwise be required under Contract Documents, will be returned to CONTRACTOR without reviewed for resubmission in accordance with Contract Documents.
 3. Delays, resequencing, or other impact to Work resulting from CONTRACTOR's submission of unchecked or unreviewed, incomplete, inaccurate or erroneous, or nonconforming Submittals, which will require CONTRACTOR's resubmission of a Submittal for Engineer's review, shall not constitute a basis of claim for adjustment in Contract Price or Contract Times.
- I. Nonspecified Submissions: Submissions not required under these Contract Documents and not shown on submissions will not be reviewed and will be returned to CONTRACTOR.
- J. Submittals to ENGINEER:
- Infinity Corrosion Group, Inc.
Attn: Erik Llewellyn, P.E., Corrosion Engineer
1987 Kidd Circle
Park City, UT 84098
ellewellyn@infinitycorrosion.com
- K. Disposition of Submittals, Except Shop Drawings and Samples: ENGINEER will review, stamp, and indicate requirements for resubmission or acceptance on Submittal as follows:
1. No Exceptions Taken:
 - a. Reference General Conditions for intent regarding schedules. Acceptance of other Submittals will indicate that Submittal conforms to intent of Contract Documents as to form and substance.
 - b. CONTRACTOR may proceed to perform Submittal related Work.
 - c. One copy furnished OWNER.
 - d. Two copies for Engineer's file.
 - e. Two copies returned to CONTRACTOR, one for onsite records.
 2. Rejected as Noted (Revise/Correct or Develop Replacement and Resubmit):
 - a. Revise/correct in accordance with Engineer's comments and resubmit.
 - b. One copy to Engineer's file.
 - c. One copy returned to CONTRACTOR appropriately annotated.
 - d. Remaining copy will be destroyed.
- L. Engineer's Review: ENGINEER will act upon CONTRACTOR's Submittal and transmit response to CONTRACTOR not later than 10 days after receipt, unless: (i) specified otherwise or (ii) accepted by ENGINEER as set forth in Paragraph Engineer's Duties below and identified on current

accepted submissions. Resubmittals will be subject to the same review time.

M. Engineer's Duties:

1. Review Submittals with reasonable promptness and in accordance with current accepted submissions.
 - a. No adjustment of Contract Times or Price will be allowed due to Engineer's review of Submittals, unless all of following criteria are met:
 - (1) CONTRACTOR has notified ENGINEER in writing that timely review of Submittal in question is critical to progress of Work, and has received Engineer's written acceptance to reflect such on current accepted submissions and progress schedule. Written agreement by the ENGINEER to reduce the above Submittal review time will be made only for unusual and CONTRACTOR-justified reasons. Acceptance of a progress schedule containing Submittal review times less than specified above or less than agreed to in writing by ENGINEER will not constitute Engineer's acceptance of the review times.
 - (2) ENGINEER has failed to review and return first submission of a Submittal within agreed time indicated on current accepted schedule of submissions or, if no time is indicated thereon, within 30 days.
 - (3) CONTRACTOR demonstrates that delay in progress of Work is directly attributable to Engineer's failure to return Submittal within time indicated and accepted by ENGINEER.
 - b. No adjustment of Contract Times or Price will be allowed due to delays in progress of Work caused by rejection and subsequent resubmission of Submittals, including multiple resubmissions.
2. Review, return for correction, reject, or accept or approve Submittals submissions only as set forth in applicable paragraphs of General Conditions.
3. Stamp and indicate requirements for resubmission and acceptance or approval of Submittal submission.
4. Return Submittals to CONTRACTOR for distribution or revision and resubmission.
5. Transmit to CONTRACTOR without review Submittal submissions received directly from Subcontractors, Suppliers, manufacturers, and nonrequired submissions from CONTRACTOR.

1.02 ADMINISTRATIVE SUBMITTALS

- A. Description: Submittals required by Contract Documents that are not Shop Drawings or Samples, or that do not reflect quality of product or method of construction. Administrative Submittals may include, but will not be limited to those Submittals identified below.
- B. Copies: Submit 1 digital copy as PDF.
- C. Applications for Payment (and Cash Allowance Data and Values): Meet requirements of Section 01 25 00, MEASUREMENT AND PAYMENT.
- D. Schedules :
 1. General: Meet the requirements of applicable paragraphs of the General Conditions.

2. Submissions:
 - a. Prepare and submit, preliminary list of submissions grouped by Contract Document article/paragraph number or Specification section number, with identification, numbering and tracking system as specified under Paragraph Identification of Submittals and as approved by ENGINEER.
 - b. Include only the following required submissions:
 - (1) Shop Drawings and Samples.
 - (2) Training plans.
 - (3) Test procedures.
 - (4) Record documents.
 - (5) Specifically required certificates, warranties, and service agreements.

1.03 SHOP DRAWINGS

- A. Copies: Submit 1 digital copy as PDF.
- B. Submit Shop Drawings to ENGINEER in accordance with the General Conditions and as specifically required by individual Specification sections for equipment and materials to be furnished under these Contract Documents.
- C. Identify and Indicate:
 1. Pertinent Drawing sheet(s) and detail number(s), products, units and assemblies, and system or equipment identification or tag numbers.
 2. Critical field dimensions and relationships to other critical features of Work.
- D. Resubmissions: Clearly identify each correction or change made.
- E. Preparation:
 1. Present in a clear and thorough manner and of sufficient detail to show kind, size, arrangement, and function of components, materials, and devices and compliance with Contract Documents. Identify details by reference to sheet and detail, and schedule or room numbers shown on Drawings.
 2. Product Data: Clearly mark each copy to identify pertinent products or models and show performance characteristics and capacities, dimensions and clearances required, wiring or piping diagrams and controls, and external connections, anchorages, and supports required.
- F. Design Data:
 1. Provide an appropriately licensed professional engineer to perform design, oversee preparation of Shop Drawings, manufacturing, and installation, as appropriate, and to stamp and certify Shop Drawings conform to design requirements and requirements of Laws and Regulations and governing agencies.
 2. When specified, provide Project-specific information as required and as necessary to clearly show calculations, dimensions, logic and assumptions, and referenced standards and codes upon which design is based.

- G. Disposition: ENGINEER will review, mark, and stamp Shop Drawings as appropriate and distribute marked-up copies as noted.
1. No Exceptions Taken (for incorporation in Work):
 - a. One copy furnished OWNER.
 - b. Two copies retained in Engineer's file.
 - c. Remaining copies will be returned to CONTRACTOR appropriately annotated.
 - (1) One copy to be kept on file as record document at CONTRACTOR's office at site.
 - (2) Remaining copies for CONTRACTOR's office file, Subcontractors, or Suppliers.
 - d. CONTRACTOR may begin to implement (i) activities to incorporate specific product(s) or (ii) Work covered by Shop Drawing as shown on approved Shop Drawing.
 2. Make corrections Noted (for incorporation in Work):
 - a. One copy furnished OWNER.
 - b. Two copies retained in Engineer's file.
 - c. Remaining copies will be returned to CONTRACTOR appropriately annotated.
 - (1) One copy to be kept on file as a record document at CONTRACTOR's office at the site.
 - (2) Remaining copies for CONTRACTOR's office file, Subcontractors, or Suppliers.
 - d. CONTRACTOR may begin to implement (i) activities to incorporate product(s) or (ii) Work covered by Shop Drawing and in accordance with Engineer's notations on Shop Drawing.
 - e. Revise copies of Submittal data in operation and maintenance manuals according to exceptions as noted.
 3. Revise/Correct and Resubmit or Develop Replacement and Submit:
 - a. One copy retained in Engineer's file.
 - b. One copy will be returned to CONTRACTOR appropriately annotated.
 - c. Remaining copies, if any, will be destroyed.
 - d. CONTRACTOR is responsible to revise, correct, and to resubmit Shop Drawing (in same manner and quantity as specified for original submission).
 - e. Shop Drawing is not approved.
 4. Rejected/Incomplete:
 - a. Complete and Submit or Resubmit Missing Portion(s):
 - (1) ENGINEER will retain copies of incomplete Submittal and transmit a written list of deficiencies.
 - (2) CONTRACTOR shall submit specified item(s) to correct the incomplete Submittal.
 - b. Shop Drawing is not approved.

1.04 QUALITY CONTROL SUBMITTALS

A. Certificates:

1. Manufacturer's Certificate of Compliance:
 - a. When specified in individual Specification sections or where products are specified to a recognized standard or code, submit prior to shipment of product or material to the site.
 - b. ENGINEER may permit use of certain materials or assemblies prior to sampling and testing if accompanied by accepted certification of compliance.
 - c. Signed by product manufacturer certifying that materials, manufacture, and product specified conforms to or exceeds specified requirements and intent for which product

will be used. Submit supporting reference data, affidavits, and certifications as appropriate.

- d. May reflect recent or previous test results on material or product, but must be acceptable to ENGINEER.
 - 2. Certificates of Successful Testing or Inspection: Submit when testing or inspection is required by Laws and Regulations or governing agency or specified in the individual Specification sections.
- B. Field Samples: Provide as required by individual Specifications and as may be required by ENGINEER during progress of Work.
- C. Written Test Reports of Each Test and Inspection : As a minimum, include the following:
- 1. Date of test and date issued, Project title and number, testing laboratory name, address, and telephone number, and name and signature of laboratory inspector.
 - 2. Date and time of sampling or inspection and record of temperature and weather conditions.
 - 3. Identification of product and Specification section, location of Sample, test or inspection in the Project, type of inspection or test with referenced standard or code, certified results of test.
 - 4. Compliance with Contract Documents and identifying corrective action necessary to bring materials and equipment into compliance.
 - 5. Provide an interpretation of test results, when requested by ENGINEER.

1.05 CONTRACT CLOSEOUT SUBMITTALS

- A. In accordance with Section 01 70 00, CONTRACT CLOSEOUT.

PART 2 PRODUCTS - (Not Used)

PART 3 EXECUTION - (Not Used)

END OF SECTION



TRANSMITTAL OF CONTRACTOR'S SUBMITTAL
(ATTACH TO EACH SUBMITTAL)

Date: _____

TO: _____

Submittal No.: _____

☐ New Submittal

☐ Resubmittal

Previous Submittal No.: _____

Project: _____

Project No.: _____

Specification Section No.: _____

FROM: _____

(Cover only one section with each transmittal)

Contractor

Schedule Date of Submittal:

SUBMITTAL TYPE:

☐ Shop Drawing

☐ Sample

☐ Informational

The following items are hereby submitted:

Number of Copies	Description of Item Submitted (Type, Size, Model Number, Etc.)	Spec. and Para. No.	Drawing or Brochure Number	Contains Variation to Contract	
				No	Yes

CONTRACTOR hereby certifies that (i) CONTRACTOR has complied with the requirements of Contract Documents in preparation, review, and submission of designated Submittal and (ii) the Submittal is complete and in accordance with the Contract Documents and requirements of laws and regulations and governing agencies.

By: _____

CONTRACTOR (Authorized Signature)

SECTION 01 40 00
COORDINATION AND SITE CONDITIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for coordinating and sequencing the work under the Contract, and requirements regarding existing site conditions.

1.02 JOB SITE COORDINATION

- A. The project shall be coordinated with the normal Operation and Maintenance of the water reclamation facilities per the Owner's direction.
- B. CONTRACTOR shall coordinate and schedule project work to be completed on or before the specified completion date as to not adversely impact operations or cause damage to completed work.
- C. CONTRACTOR shall coordinate and schedule project work and implement required project controls to maintain safe and efficient traffic flow during Work.

1.03 SUBMITTALS

- A. CONTRACTOR shall submit the following information as applicable to coordinate activities:
 - 1. Work Plan and Schedule for completing all Work,
 - 2. Work Plan for installation of anode groundbeds

1.04 SITE CONDITIONS

- A. Information of Site Conditions: Available information regarding site conditions, topography, existing construction of site facilities as applicable, and similar data are not available.
- B. CONTRACTOR is encouraged to inspect the project site to acquire such information as needed to complete the work under this Contract.
- C. Existing Utilities:
 - 1. CONTRACTOR shall exercise reasonable care to verify locations of utilities and facilities that may be affected by the work.
 - 4. Contractor Responsibilities:
 - a. Where CONTRACTOR's operations could cause damage or inconvenience to railway, telephone, television, power, oil, gas, water, sewer, storm drains, or irrigation systems, the CONTRACTOR shall make arrangements necessary for the protection of these utilities and services. Replace existing utilities removed or damaged during construction, unless otherwise provided for in these Contract Documents.
 - b. CONTRACTOR shall be solely and directly responsible to owner and operator of such properties for damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of injuries or damage which may result from construction operations under this Contract.

- c. Neither OWNER nor its officers or agents shall be responsible to CONTRACTOR for damages as a result of CONTRACTOR's failure to protect utilities encountered in the work.

C. Interfering Structures:

1. Take necessary precautions to prevent damage to existing structures whether on the surface, aboveground, or underground.
2. CONTRACTOR may remove and replace in equal or better than original condition, small structures such as fences that interfere with CONTRACTOR's operations only after approval by the OWNER.

D. Salvage of Materials:

1. Materials and equipment removed as part of the Work under this Contract shall become the property of the CONTRACTOR, unless specifically stated otherwise.
2. CONTRACTOR will remove materials and equipment with extreme care so as not to damage adjacent equipment or surfaces.
3. Salvaged material and equipment shall be removed from the project site by the CONTRACTOR in a timely manner and before final completion of the project.

1.05 PROJECT MEETINGS

- A. Preconstruction Conference: A preconstruction conference will be held at the site of work or where requested by the OWNER or ENGINEER following award of a construction contract.
- B. Progress Meetings: OWNER or ENGINEER will schedule regular progress meetings at least weekly to review work progress, schedules, and other matters needing discussion and resolution.

1.06 SEQUENCE OF WORK

A. Operation and Shutdown of Existing Facilities:

1. Schedule and conduct activities to enable other facilities on the project site to operate continuously, unless otherwise specified.
2. Conduct work outside normal work hours as may be necessary to meet project schedule and avoid undesirable conditions as approved by the OWNER.
3. Provide 7 days advance notice to Project Representative of need to shut down a process or facility. Do not proceed with work affecting a facility's operation without obtaining OWNER's advance approval of the need for, and duration of, such work.

B. Time of Work:

1. Normal working hours are between 7:00 AM and 5:00 PM, five days per week.
2. No work will be done between 8:00 PM and 7:00 AM, without prior approval.
3. Requests to work outside specified periods must be submitted at least 72 hours in advance and are subject to Owner approval.
4. Work may be allowed on Sundays or legal holidays, upon request by Contractor and with the written permission of the OWNER.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 CUTTING AND FITTING

A. General:

1. Execute cutting and fitting of work, required to:
 - a. Removal of equipment or materials as required under this Contract.
2. CONTRACTOR shall not, without written consent of OWNER:
 - a. Cut or alter work of another Contractor.
 - b. Cut structural or reinforcing steel.
 - c. Endanger existing or new structures or facilities.
 - d. Shut down or disrupt existing operations.
3. Materials for replacement of work removed shall comply with applicable sections of these Specifications for corresponding type of work to be done.
4. Provide all tools and equipment required to accomplish cutting and patching.

B. Inspection and Preparation

1. Inspect existing conditions of work, including elements subject to movement or damage during disassembly and reassembly.
2. Provide appropriate safety protection before all Work.

C. Procedures:

1. Restore work, which has been cut or removed; install new products to provide completed work in accordance with specified requirements.
2. Refinish entire surfaces as necessary to provide an even finish.
 - a. Refinish continuous surfaces to nearest intersection.
 - b. Refinish entire assemblies.
3. Restore structures and surfaces damaged that are to remain in the completed work including piping, conduit, and other utilities.
4. Make restorations with new materials and appropriate methods as specified for new work of similar nature; if not specified, use best recommended practice of manufacturer or appropriate trade association.
5. Restore damaged work so there is a secure and intimate bond or fastening between new and old work. Finish restored surfaces to such planes, shapes, and textures that no transition between new and old work is evident in finished surfaces.

END OF SECTION

SECTION 01 45 00
QUALITY CONTROL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Contractor's quality control program procedures in executing the work.
- B. Applicable dates of reference standards.
- C. Product standardization and installation.
- D. Protection of finished work.
- E. Cleaning during construction.

1.02 SUBMITTALS

- A. Submit the following information associated with the quality control:
- B. Statement and description of Contractor's overall quality control (QC) program, which shall include field supervision, inspection hold points, inspection process, inspection documentation, shop drawing coordination and checking, and equipment installation procedures.
- C. Name, qualifications, and prior experience of Contractor's designated Quality Control person responsible for the Work for the proposes for OWNER's consideration.
- D. Name, qualifications, and prior experience of inspection and testing laboratories that Contractor proposes for OWNER's consideration.

1.03 QUALITY CONTROL (QC) PROGRAM

- A. Contractor's QC program shall include the following activities, as a minimum:
 - 1. Field supervision and inspection practices.
 - 2. Quality control over subcontractors, suppliers and other services engaged in the project.
 - 3. Procedures for correcting non-compliant work.
 - 4. Shop drawing coordination and checking procedures, including submittals from product manufacturers and subcontractors.

1.04 REFERENCE STANDARDS

- A. Where referenced to an industry standard does not include a date of issue, conform to issue current as of Contract execution date.
- B. Where reference to an industry standard includes a date of issue, conform to issue current as of the date specified.

1.05 PRODUCT STANDARDIZATION AND INSTALLATION

- A. Like items of products furnished and installed throughout the project shall be end products of one manufacturer to achieve standardization for appearance, operation and maintenance, spare parts and replacement, and manufacturers services.
- B. Installation of materials and equipment: In conformance with manufacturer's written instructions.

1.06 PROTECTION OF WORK

- A. Included in Section 01 50 00 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS.

PART 2 PRODUCTS - (Not Used)

PART 3 EXECUTION

3.01 QUALITY CONTROL FOR SPECIFIC WORK ACTIVITIES

- A. Contractor shall provide quality control as specified in this section and as specified in the sections related to specific work activities.
- B. CLEANING DURING CONSTRUCTION
 - 1. Contractor shall keep Owner's property clean at all times and maintain a clean work site. Contractor shall properly dispose of waste materials, debris, and rubbish (i.e., cigarettes, wrappers, drink containers, etc.) in approved containers to assure that buildings, grounds, roads, and public properties are maintained free from accumulations of waste materials on a daily basis and as identified by Owner or Owner's representative. Contractor shall assure that site is free of all uncontained garbage at the end of each workday.
 - 2. Provide appropriate containment of dust, debris, and over spray.
 - 3. Remove grease, dust, stains, labels, fingerprints, and other foreign materials from exposed and partially exposed surfaces.
 - 4. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.
 - 5. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.

6. Use only cleaning materials recommended by manufacturer of surfaces to be cleaned.
Use cleaning material only on surfaces recommended by cleaning manufacturer.

C. COMPLETION INSPECTION

1. Contractor shall conduct an inspection of their work near the end of the work, or any increment of the work established by Owner, Engineer, Completion of Work, or by the specifications. Document a punch list of items which do not conform to the approved drawings and specification. Include within the list of deficiencies the estimated date by which the deficiencies will be corrected.
2. Final Acceptance Inspection shall be scheduled upon Contractor's assurance that all specific items previously identified as being unacceptable, along with all remaining work performed under the Contract, will be complete and acceptable by the date scheduled for the final acceptance inspection.
3. Final Acceptance Inspection shall include the Contractor's Quality Control Inspection personnel, superintendent or other primary management person, Owner, and Engineer. Failure of the Contractor to have all contract work acceptably complete for the Final Acceptance Inspection may be cause for the Owner to bill the Contractor for the additional inspection costs.

D. NOTIFICATION OF NONCOMPLIANCE

1. The Owner / Engineer will notify the Contractor of any detected noncompliance with the foregoing requirements. Take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, will be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Owner or engineer can issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders will be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

END OF SECTION

SECTION 01 50 00
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.01 SUBMITTALS

- A. Meet requirements of Section 01 30 00, SUBMITTALS, as applicable. Provide Submittals required below before starting Work at the site or in accordance with accepted schedule of Submittals submissions.
- B. Shop Drawings:
 - 1. Temporary Construction Submittals:
 - a. Equipment and Materials Staging area location plan.
 - b. Work Schedule for the following:
 - (1) Deep Well Anode Groundbed Installation
 - (2) Electrical Power Service Connection
 - (3) Cathodic Protection Station Site Restoration
 - c. Contractor Coordination Plan.
 - d. Well Drill Plan.
 - e. Waste Collection, Storage, and Disposal Plan.
 - f. Electrical Work Plan.

1.02 MOBILIZATION

- A. Reference applicable paragraphs of the General Conditions.
- B. Mobilization shall include, but not be limited to, these principal items:
 - 1. Obtaining required permits.
 - 2. Moving CONTRACTOR's equipment required for first month operations onto site.
 - 3. Installing temporary construction power, wiring, and lighting facilities.
 - 4. Providing onsite sanitary facilities and potable water facilities as specified and as required by Laws and Regulations, and governing agencies.
 - 5. Arranging for and erection of CONTRACTOR's work and storage yard.
 - 6. Posting OSHA required notices and establishing safety programs and procedures.
 - 7. Having the CONTRACTOR's superintendent at the site full time.
 - 8. Submitting of initially acceptable schedules as required in Section 01 00 00, General Requirements.

1.03 CONTRACTOR'S USE OF PREMISES

- A. Reference applicable paragraphs of the General Conditions.
- B. Should additional lands and access thereto for temporary construction facilities or storage of materials and equipment be required, reference requirements provided in the General Conditions.

1.04 PERMITS

- A. Permits, Licenses, or Approvals: Obtain in accordance with the General Conditions and as otherwise may be provided in the Supplementary Conditions and retain onsite.

1.05 PROTECTION OF WORK AND PROPERTY

- A. Reference the General Conditions.
- B. Comply with OWNER's safety rules while on OWNER's property.
- C. Keep OWNER informed of accidents on the site and related claims.
- D. Use of Explosives: No blasting or use of explosives will be allowed on the site.
- E. During the performance of the Work, CONTRACTOR is responsible for adapting its means, methods, techniques, sequences and procedures of construction to allow OWNER to maintain operation as described in Section 01 00 00, General Requirements, at the existing level of facility production and consistent with applicable permit requirements, and Laws and Regulations. In performing such Work and in cooperating with the OWNER to maintain operations, it may be necessary for the CONTRACTOR to plan, design, and provide various temporary services, utilities, connections, temporary piping and heating, access, and similar items which will be included within the Contract Price.

PART 2 PRODUCTS - (Not Used)

PART 3 EXECUTION

3.01 TEMPORARY UTILITIES

- A. Power: Electric power is not available at the site(s) for use by Contractor. Determine the type and amount available and make arrangements for obtaining temporary electric power service.
- B. Lighting: Provide temporary lighting to meet all applicable safety requirements to allow erection, application or installation of materials and equipment, and observation or inspection of the Work.
- C. Water: Construction water is not available from the Owner at the project site(s). Contractor to provide a separate drinking water source at Contractor's own expense.
- D. Sanitary and Personnel Facilities: Provide and maintain facilities for CONTRACTOR's employees, Subcontractors, and all other onsite employer's employees. Service, clean, and maintain facilities and enclosures.
- E. Telephone Service: Telephone Service is not available from the Owner at the project site(s).
- F. Fire Protection: Furnish and maintain on the site adequate firefighting equipment capable of extinguishing incipient fires. Comply with applicable parts of the National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241).

3.02 PROTECTION OF WORK AND PROPERTY

A. General:

1. Perform Work within rights-of-way and easements in a systematic manner that minimizes inconvenience to property owners and the public.
2. No residence or business shall be cut off from vehicular traffic for a period exceeding 4 hours unless special arrangements have been made.
3. Maintain in continuous service all existing oil and gas pipelines, underground power, telephone or communication cable, water mains, irrigation lines, sewers, poles and overhead power, and all other utilities encountered along the line of work, unless other arrangements satisfactory to owners of said utilities have been made.
4. Where completion of Work requires temporary or permanent removal and/or relocation of an existing utility, coordinate all activities with owner of said utility and perform all work to their satisfaction.
5. Keep fire hydrants and water control valves free from obstruction and available for use at all times.
6. In areas where the CONTRACTOR's operations are adjacent to or near a utility such as gas, telephone, television, electric power, water, or sewer and such operations may cause damage or inconvenience, suspend operations until arrangements necessary for protection thereof have been made by the CONTRACTOR.
7. Notify property owners and utility offices that may be affected by the construction operation at least 2 days in advance.
8. Before exposing a utility, obtain utility owner's permission. Should service of utility be interrupted due to the CONTRACTOR's operation, notify proper authority immediately. Cooperate with said authority in restoring service as promptly as possible and bear costs incurred.
9. Do not impair operation of existing sewer systems. Prevent construction material, pavement, concrete, earth, volatile and corrosive wastes, and other debris from entering sewers, pump stations, or other sewer structures. Maintain original site drainage wherever possible.

B. Site Security: Not Used.

C. Barricades and Lights:

1. Provide as necessary to prevent unauthorized entry to construction areas and affected roads, streets, and alleyways, inside and outside of fenced area, and as required to ensure public safety and the safety of CONTRACTOR's employees, other employer's employees, and others who may be affected by the Work.
2. Provide to protect existing facilities and adjacent properties from potential damage.
3. Locate to enable access by facility operators and property owners.
4. Protect streets, roads, highways, and other public thoroughfares that are closed to traffic by effective barricades with acceptable warning signs.
5. Locate barricades at the nearest intersecting public thoroughfare on each side of the blocked section.

D. Existing Structures: Where CONTRACTOR considers removal of small structures such as fences, mailboxes, signposts, and culverts that interfere with CONTRACTOR's operations, obtain

approval of property owner and ENGINEER. Replace those removed in a condition equal to or better than original.

E. Waterways:

1. Keep ditches, culverts, and natural drainages continuously free of construction materials and debris.

F. Dewatering: Construct, maintain, and operate channels, sumps, pumps, or other temporary diversion and protection works. Furnish materials required, install, maintain, and operate necessary pumping and other equipment for the environmentally safe removal and disposal of water from the various parts of the Work. Maintain the foundations and parts of the Work free from water.

3.03 TEMPORARY CONTROLS

A. Air Pollution Control:

1. Minimize air pollution from construction operations.
2. Burning of waste materials, rubbish, or other debris will not be permitted on or adjacent to the site.
3. Provide and maintain temporary dust-tight partitions, bulkheads, or other protective devices during construction to permit normal operation of existing facilities. Construct partitions of plywood, insulating board, plastic sheets, or similar material. Construct partitions in such a manner that dust and dirt from demolition and cutting will not enter other parts of existing building or facilities. Remove temporary partitions as soon as the need no longer exists.

B. Noise Control:

1. Provide acoustical barriers so noise emanating from tools or equipment will not exceed legal noise levels.
2. Noise Control Plans: Proposed plan to mitigate construction noise impacts and to comply with noise control ordinances including method of construction, equipment to be used, and acoustical treatments.
3. The project site is located near businesses; unnecessary loud noises such as radios, foul or objectionable language, yelling, etc. will not be permitted. Contractor's employees shall employ only orderly and competent people and upon notice from the OWNER that any of the Contractor's employees are, in the opinion of the OWNER, objectionable or disorderly, such employees shall be dismissed.

C. Water Pollution Control:

1. Do not dispose of volatile wastes such as mineral spirits, oil, chemicals, or solvents on the project site or in storm or sanitary drains. Disposal of wastes into streams or waterways is prohibited.
2. Provide acceptable containers for onsite collection and storage and offsite disposal of waste materials, debris, and rubbish.
3. Waste solvents are the property of the CONTRACTOR and as such, the CONTRACTOR shall be responsible for recycling or proper disposal at an approved facility.

D. Traffic Control:

1. Provide barriers and protective measures necessary to protect the public and Work areas in or adjacent to roadways and prevent unauthorized access to Work areas in or adjacent to roadways.
2. Provide barriers and protective measures necessary to prevent unauthorized access to Work areas in or adjacent to roadways.

E. Construction hoists, elevators, scaffolds, stages, shoring, and similar temporary facilities shall be of ample size and capacity to adequately support and move the loads to which they will be subjected. Railings, enclosures, safety devices, and controls required by law or for adequate protection of life and property shall be provided. All facilities shall meet OSHA requirements and all applicable federal, state, county, and local requirements.

3.04 STORAGE YARDS AND BUILDINGS

A. Temporary Storage Yards: Construct temporary storage yards for storage of products that are not subject to damage by weather conditions.

B. Temporary Storage Buildings:

1. Provide environmental control systems that meet recommendations of manufacturers of equipment and materials stored.
2. Arrange or partition to provide security of contents and ready access for inspection and inventory.
3. Store combustible materials (paints, solvents, fuels, etc.) in a well-ventilated and remote building, meeting safety standards.

3.05 PARKING AREAS

A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, OWNER's operations, or construction operations.

B. Provide parking facilities for personnel working on the Project. No employee or equipment parking will be permitted on OWNER's existing paved areas, except as specifically designated for CONTRACTOR's use.

3.06 VEHICULAR TRAFFIC

- A. Comply with Laws and Regulations regarding closing or restricting the use of public streets or highways. No public or private road shall be closed, except by written permission of the proper authority. Assure the least possible obstruction to traffic and normal commercial pursuits.
- B. Conduct Work to interfere as little as possible with public travel, whether vehicular or pedestrian.
- C. Contractor shall not obstruct, block, or impede the flow of traffic along the fire lane along the north or east sides of the parking garage without prior approval of the OWNER.

3.07 SAFETY

- A. Safety Responsibilities:
 - 1. CONTRACTOR shall do whatever is necessary of safety and be solely and completely responsible for conditions of the jobsite, including safety of all persons (including employees) and property during the Contract period. This requirement shall apply continuously and not be limited to normal working hours.
 - 2. ENGINEER's duty to conduct construction review of the CONTRACTOR's performance is not intended to include a review or approval of the adequacy of CONTRACTOR's safety supervisor, safety program, or safety measures taken in, on, or near the construction site.
- B. Safety Requirements:
 - 1. Safety provisions shall conform to Federal and State Department of Labor Occupational Safety and Health Act (OSHA), and other applicable federal, state, county, and local laws, ordinances, codes, requirements set forth herein, and regulations that may be specified in other parts of these Contract Documents. Where these are in conflict, the more stringent requirement shall be followed.

3.08 CLEANING DURING CONSTRUCTION

- A. General:
 - 1. In accordance with the General Conditions and as may be specified in specific Specification sections, and as required herein.
 - 2. Wet down exterior surfaces prior to sweeping to prevent blowing of dust and debris. Daily, sweep all floors, and pick up all debris and dispose.
 - 3. Provide approved containers for collection and disposal of waste materials, debris, and rubbish. At least at weekly intervals, dispose of such waste materials, debris, and rubbish offsite.
 - 4. Daily, brush sweep the entry drive and roadways, and all other streets and walkways affected by Work and where adjacent to Work.
 - 5. Remove snow and ice from access roads and construction areas as necessary to maintain access by OWNER and ENGINEER and to maintain progress of work.

END OF SECTION

**SECTION 01 70 00
CONTRACT CLOSEOUT**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedure to be followed in closing out the Contract, including final cleaning, preparation, and submittal of closeout documents, warranties and bonds, and final completion certification.

1.02 CONTRACT CLOSEOUT SUBMITTALS

- A. Reference: In accordance with the General Conditions and as may be otherwise required in the Contract Documents.
- B. Contractor's daily inspection logs.
- C. All hazardous and non-hazardous waste transport and waste disposal manifests, laboratory reports, associated receipts, and all applicable records documenting compliance with applicable State and Federal waste disposal rules and regulations.
- D. Approved Shop Drawings and Samples: As required in the General Conditions.
- E. Certificates of Testing and Inspection: As required in the General Conditions, these General Requirements sections, and the individual Specification sections.
- F. As-built Drawings: Record drawings of the Contractor's representation of as-built conditions, including all revisions made necessary by addenda and change orders shall be maintained up-to-date during the progress of the Work and submitted upon completion of Work.
- G. Certificate of Substantial Completion.
- H. Certificates or Evidence of Insurance: As required in the General Conditions.
- I. Releases or Waivers of Liens and Claims: As required in the General Conditions.
- J. Written Releases from Agreements with Others:
 - 1. Before final payment will be authorized, CONTRACTOR shall furnish the OWNER written releases from property owners or public agencies where side agreements or special easements have been made, or where CONTRACTOR's operations have not been kept within the OWNER's construction right-of-way.
 - 2. In the event CONTRACTOR is unable to secure written releases, inform the OWNER of the reasons.
 - a. OWNER or its representatives will examine the site, and OWNER will direct CONTRACTOR to complete Work that may be necessary to satisfy terms of the easement.
 - b. Should CONTRACTOR refuse to perform this Work, OWNER reserves the right to have it done by separate contract and deduct the cost of same from the Contract Price, or

require the CONTRACTOR to furnish a satisfactory Bond in a sum to cover legal claims for damages.

- c. When OWNER is satisfied that Work has been completed in agreement with the Contract Documents and terms of easements, the right is reserved to waive the requirement for written release if: (i) CONTRACTOR's failure to obtain such statement is due to the grantor's refusal to sign, and this refusal is not based upon any legitimate claims that CONTRACTOR has failed to fulfill the terms of the easement, or (ii) CONTRACTOR is unable to contact or has had undue hardship in contacting the grantor.

1.03 FINAL APPLICATION FOR PAYMENT

- A. Submit the final Application for Payment in accordance with procedures and requirements stated in the General Conditions, Section 01 25 00, MEASUREMENT AND PAYMENT, and as may otherwise be specified herein.
- B. No Contract will be finalized until satisfactory evidence of release of liens has been submitted to OWNER.

1.04 FINAL INSPECTION

- A. Reference applicable paragraphs of the General Conditions and Supplementary Conditions.

PART 2 PRODUCTS - (Not Used)

PART 3 EXECUTION

3.01 FINAL CLEANING

- A. Reference applicable paragraphs of the General Conditions. At completion of Work or of a part thereof and immediately prior to CONTRACTOR's request for certificate of Substantial Completion; or if no certificate is issued, immediately prior to CONTRACTOR's notice of completion, clean entire site or parts thereof, as applicable.
 - 1. Leave the Work and adjacent areas affected in a cleaned condition satisfactory to OWNER.
 - 2. Remove grease, dirt, dust, paint or plaster splatter, stains, labels, fingerprints, and other foreign materials from exposed surfaces.
 - 3. Repair, patch, and touch up marred surfaces to match adjacent surfaces.
 - 4. Broom clean exterior paved driveways and parking areas.
 - 5. Hose clean sidewalks, loading areas, and others contiguous with principal structures.
 - 6. Rake clean all other surfaces.
 - 7. Remove snow and ice from access to buildings.

8. Leave water courses, gutters, and ditches open and in condition satisfactory to ENGINEER.
 9. Return sites to original or better condition.
- B. Should CONTRACTOR not remove rubbish or debris or not clean the facilities and site as specified, the OWNER reserves the right to have the final cleaning done at the sole expense of the CONTRACTOR.
 - C. Abrasive blast debris classified as hazardous waste shall be packaged in EPA approved containers for disposal by the CONTRACTOR.
 - D. Non-hazardous debris shall be disposed of by the CONTRACTOR.
 - E. No hazardous or non-hazardous waste generated from the work site shall be permitted to be transported offsite without notification and approval by Owner.
 - F. Remove from the OWNER's property temporary structures and materials, equipment, and appurtenances not required as part of or appurtenant to, the completed work. See Section 01 50 00 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS.
 - G. Leave water courses, gutters, catch basins, and ditches open and in a condition satisfactory to ENGINEER.

3.02 TOUCH-UP AND REPAIR

- A. Touch up or repair finished surfaces on structures, equipment, fixtures, and installations that have been damaged prior to inspection for final acceptance.
- B. Refinish or replace entire surfaces that cannot be touched-up or repaired satisfactorily.

3.03 DEMOBILIZATION

- A. Demobilization shall include moving materials and equipment, field trailers, construction materials, debris, and so forth from the Site as well as performing final cleanup.
 1. Disturbed areas shall be restored to their original state or better.
 2. Permanent improvements damaged during construction operations shall be repaired or replaced at no additional cost to Owner.
 3. Remove all equipment, materials, waste, and debris from the site and restore site to original condition upon completion of construction.
 4. The work area shall be restored to its original or better condition and shall be inspected and approved by Engineer.

END OF SECTION

DIVISION 26

ELECTRICAL

SECTION 26 42 00
IMPRESSED CURRENT CATHODIC PROTECTION

PART 1 GENERAL

1.01 WORK INCLUDED:

- A. This Section covers the work necessary to furnish all equipment, labor, and materials to construct a fully operational impressed current, deep well anode groundbed system at the South Salt Lake City (SSLC) 700 East Well, located near S 700 East and Springview Drive, South Salt Lake, Utah at GPS Lat. 40.701618°, Long. -111.871687°, as shown on the Drawings and specified herein, complete.
- B. This section covers the work necessary to furnish all equipment, labor, and materials to a new impressed cathodic protection deep well, new anode and well casing header cables inside rigid PVC conduit, new well casing test wire, and new associated electrical equipment (rectifier and junction box).
- C. Ancillary Work to be completed by the Contractor includes leveling of site as needed for equipment access, removal, and disposal of drill cuttings per state regulations, construction of reinforced concrete equipment pad, general site cleanup, and connecting electrical equipment.
- D. It is the Contractor's responsibility to determine the best construction method for the site conditions and to meet the project requirements. The Owner shall not be liable for any additional costs the Contractor may incur associated with constructing the anode groundbed specified.

1.02 PROJECT REFERENCES

- A. It is the Contractor's responsibility to confirm the information provided and conduct an independent investigation of subsurface soil conditions in the area.

1.03 STANDARDS

- A. The following standards are included by reference:
 - 1. NACE SP-0169
 - 2. NACE SP-0177

1.04 SUBMITTALS PRIOR TO CONSTRUCTION:

- A. Submittals prior to construction shall be made in accordance with SSLC requirements and as follows:
 - 1. Project Controls
 - a. Project Schedule
 - b. Containment Plan
 - c. Overall System Wiring Diagram: Identify location of connections, label marking, wire size, color, and products.
 - d. Procedures and equipment to be utilized for electrical logging of deep anode groundbeds.

- e. Traffic Control Plan, if applicable
 - f. Well Drilling Start Card from State of Utah
2. Product Data catalog cuts for the following items, if applicable:
- a. Anodes and Lead Wires
 - b. Anode Header Cable
 - c. Anode Centralizers
 - d. Coke Breeze
 - e. Anode Junction Box
 - f. Rectifier
 - g. Test Wire
 - h. Stand Pipe
 - i. Slotted Vent Pipe
 - j. UV Resistant PVC Deep Well Vent Pipe
3. Quality Assurance Submittals
- a. Corrosion Control Person-In-Charge credentials.
 - b. Driller's experience statement. Include name of individual(s) who will operate the drilling equipment and a copy of their current driller's license.
 - c. Description of similar jobs completed by the Contractor in the past five years.
 - d. A copy of the Driller's logs used for deep anode installations.
- B. Manufacturer information shall be submitted for all cathodic protection system equipment to be used and shall include manufacturer's name, Model No., and rated electrical capacity of equipment, installation instructions, and detailed descriptions of the construction.

1.05 PROJECT CONTROLS:

- A. Within 30 days of the receipt of the SSLC Notice to Proceed a detailed project schedule must be submitted to the Engineer for approval. Once the schedule has been approved by the Engineer, any additional changes to the schedule must be submitted in writing for approval.
- B. All project scope changes must be approved prior to the work being performed. Written requests for changes must be received prior to the performance of any work not previously authorized by the Owner.

1.06 SUBMITTALS FOLLOWING CONSTRUCTION:

- A. Submittals following construction shall include the following items:

- Material Submittals
- AMPP (formerly NACE) Cathodic Protection Credentials
- Subcontractor Submittals
- Current Driller's License
- Driller's Start Card/Well Permit
- Copies of any type of permit required during the work period
- Daily work reports including daily safety meeting documentation
- Completed job hazard analysis form
- Job site safety plan
- Well logs, consistent with State requirements must be kept and submitted to the Owner. Information that must be included in the log are date, depth, and thickness of

all formations penetrated, tools used, depth to water in water bearing zones, and cause for any delays.

- Documentation of any disposed material
- Photos of the work site
 - Prior to commencement of work
 - During the work phase including drilling/digging and installation of anodes
 - At completion of work and site has been restored to original condition
- Copy of all testing performed by contractor with accompanying photos
- Detailed construction as-built drawing
- Photographs with a detailed diagram of all pertinent information including the location of (example included):
 - Rectifier and power supply breaker
 - Ground bed (deep well)
 - Header cable
 - Junction Boxes
 - Other pipeline(s) or utilities close by (within 100')
 - GPS coordinates

1.07 DEFINITIONS:

- A. Ferrous Metal Pipe: Ferrous metal pipe shall be defined as any pipe made of steel or iron alloys and pipe containing steel or iron as a principle structural material, except ASTM C361 reinforced concrete pipe.
- B. Foreign-Owned: Any buried pipe or cable not specifically owned or operated by the Owner.
- C. Active column: Active column of a deep anode groundbed shall be that portion of the groundbed which discharges current and shall consist of the anodes and coke breeze.
- D. Inactive column: Inactive column of a deep anode groundbed shall be that portion of the groundbed which does not discharge current, and shall consist of the Bentonite fill, casing, and grout or concrete seal which is above the active column.
- E. Lead, Lead Wire, Joint Bond, Pipe Bond Wire, Cable: Insulated copper conductor; the same as wire.

1.08 QUALITY ASSURANCE

- A. Licensed State of Utah Well Driller: Qualifications and Relevant Work Experience on at least three (3) deep well cathodic protection projects in the last five years.
- B. Contractor's Superintendent Qualifications and Work Experience: Minimum of five (5) successfully completed deep well cathodic protection systems in the past five years.
- C. Corrosion Control Person-In-Charge.
 - 1. Provide the services of an AMPP Cathodic Protection Technician (CP2), minimum. The Corrosion Control Person-In-Charge must have overseen the installation of a minimum of five (5) cathodic protection systems in the past 5 years. The Corrosion Control Person-In-Charge shall provide field observation, start-up, and testing services during the installation of the deep anode groundbed and installation of cathodic protection system components.

2. The Corrosion Control Person-In-Charge can be the same person as designated to be the Contractor's Superintendent.
3. The Corrosion Control Person-In-Charge shall be on site during the installation of the anodes in the groundbed and will be required to:
 - a. Oversee installation of the deep anode groundbed.
 - b. Verify proper operation of the deep anode groundbed and anode junction box.
 - c. Determine compliance with these Specifications.
 - d. Provide cathodic protection testing as specified.
 - e. Resolve field problems.
 - f. Submit a field report documenting the cathodic protection system installation and daily reports.
- D. SSLC or their representative has full authority to stop work for non-conformance with these specifications.
- E. Perform work only in the presence of SSLC or their representative, unless SSLC or their representative grants prior approval to perform such work in their absence. Approval to perform work in SSLC's or their representative's absence is limited to the current day unless specifically noted to extend beyond the completion of the workday.
- F. Inspection by SSLC or their representative, or the waiver of inspection of any particular portion of the work, shall not be construed to relieve the Contractor of responsibility to perform the work in accordance with these specifications.

PART 2 MATERIALS

2.01 GENERAL:

- A. The use of a manufacturer's name and model or catalog number is for establishing the standard of quality and general configuration desired only. Products of other manufacturers will be considered at the discretion of SSLC and their Engineer.
- B. Like items of materials provided hereunder shall be the product of one manufacturer to achieve standardization for appearance, maintenance, and replacement.
- C. Unless otherwise stated, Contractor to provide all materials and equipment.

2.02 MATERIAL SUPPLIERS:

- A. Alternate suppliers will be considered, subject to approval of the Engineer. Address given is that of the general office; contact these offices for information regarding the location of their representative nearest the project site.
 1. MESA Products, Tulsa, OK
 2. Farwest Corrosion Control, Gardena, CA
 3. Corrpro, Inc., Medina, OH
 4. Or Equal.

2.03 DEEP ANODE CONSTRUCTION MATERIALS

A. IMPRESSED CURRENT ANODE

1. Impressed current anodes for deep well groundbeds shall be Chromium High Silicon Tubular Anodes (TA3), and have center tapped anode wire connections.
2. Chromium High Silicon Tubular Anode Specifications
 - a. Size 2.66 in x 84 in
 - b. Weight: 63 lb.
 - c. Surface Area 4.9 ft²
 - d. Center Connected
 - e. Urethane Cap Seals
3. Lead Wire:
 - a. Lead wire connections shall be made with a zinc connection hydraulically pressed into the core of the anode material.
 - b. The connection shall withstand a minimum pull-out strength of 300 lbs. with a wire connection resistance under 0.004 ohm.
 - c. No. 8 AWG stranded copper with insulation as specified under WIRE, this section. Connection of lead wire to the anode shall be by the manufacturer's standard center tapped connection. The anode connection shall be stronger than the wire.
 - d. Each lead wires shall be ordered with extra length, as required, to enable field positioning of anodes in well as specified and routed to above ground anode junction box splice-free.
 - e. Anode Lead Wire Make:
 - (1) Single-conductor, No. 8 AWG stranded copper.
 - (2) 20-mil thick cross-linked HALAR primary insulation and 65 mil HMWPE outer insulation.
 - (3) Acceptable anode wire is Permarad, as manufactured by Raychem Corp., Menlo Park, CA, or equal.
 - (4) Furnish with sufficient length to extend splice-free from the anode connection to the anode junction box terminals.
4. Packaging: Lead wire shall be coiled on spools and bound in such a manner as necessary to protect the insulation from damage during shipment. Anodes shall be protected from breakage. Damaged anodes or lead wire will be cause for replacement of the lead wire and anode.
5. Wire Labels: Label the end of each anode lead wire with the anode number and wire length stamped onto the brass tags. Number anodes sequentially from bottom to top.

B. ANODE CENTRALIZERS

1. Metal Assemblies that can be securely attached to the anodes to center them in the drilled hole.
2. No sharp edges or bolts will be permitted on the centralizers.
3. Centralizers shall not block the hole or impair installation of the anode, anode wires, or coke breeze.

C. INACTIVE ZONE WELL SEAL

1. Powdered Natural Sodium Bentonite Grout for bottom load pumping to seal well inactive zone

D. COKE BREEZE:

1. Coke breeze shall be lubricated calcined petroleum of the following composition:

Volatile Matter	0.7 to 1.8 percent
Ash	1.3 percent maximum
Sulfur	1.9 percent maximum
Fixed Carbon	95.0 percent minimum
Particle Size	100 percent less than 16-mesh
Density	74 pounds per cubic foot, minimum

2. Acceptable coke breeze shall be Loresco SC-3 as manufactured by Cathodic Protection Equipment Company, Hattiesburg, MS.

E. CASING SANITARY SEAL AND FILL MATERIAL

1. General
 - a. Sealing materials for wells shall conform to the State of Utah water well regulations.
2. Sanitary Seal (annulus area between the surface casing and soil):
 - a. Cement Grout:
 - (1) Mix shall be equal parts by weight of sand and cement with not more than 6 gallons of clean water (per 94-pound bag of cement).
 - (2) Quick setting cement, retardants to setting, and other additives, including hydrated lime (up to 10 percent of the volume of cement), and bentonite (up to 5 percent) to make the mix more fluid and/or to reduce shrinkage, may be used.
 - b. Bentonite Slurry:
 - (1) Mixture of bentonite and water in a ratio of not less than 8 pounds of bentonite or expansive clay per gallon of water.
 - (2) Slurry shall not be less than 50 percent expansive clay with the grain size of the remainder to be not greater than coarse sand.
 - (3) Bentonite shall be commercially produced product specifically designed for well sealing. Acceptable products are Aquaguard, Quick-Grout, Plug-Gel, Shur-Gel, Enviro-Plug, or equivalent material.
 - c. Bentonite Chips:
 - (1) Bentonite shall be commercially produced product specifically designed for well sealing.
 - (2) Size: $-3/8'' + 1/4''$
 - (3) Bulk Density: 68 lb./ft³
 - (4) Moisture Content: 15% \pm 2
 - (5) Permeability: 1 x 10⁻⁹ cm/sec
 - (6) Acceptable products are Aquaguard, Quick-Grout, Plug-Gel, Shur-Gel, EnviroPlug, or equivalent material.

F. SURFACE CASING

1. PVC well casing, conforming to ASTM F-480, Schedule 40 or required by State water well drilling regulations.

G. SURFACE CASING COVER

1. Schedule 40 PVC cap for 8" Casing
2. Traffic rated 20" diameter cover ring x 12" ID x 10" deep cast iron hatch

H. STAND PIPE

1. Use a 1-1/4-inch diameter steel standpipe with threaded connections capable of supporting the entire anode string during hole loading.
2. Equip the standpipe with a six-inch diameter, 1/4-inch thick steel end plate. Make vertical slots (2-inch x 1/4-inch) in a staggered pattern around the circumference on the lower 30 inches to facilitate pumping coke breeze through the standpipe. Alternatively, the Contractor can elect to use a Tee type fitting at the end of the standpipe to distribute the coke breeze slurry.
3. After the loading operation is complete, remove the standpipe located above the coke breeze column from the hole. Use a reverse threaded connection or non-welded joint connection for this purpose.

I. VENT PIPE

1. Active Column Vent
 - a. Loresco "Allvent," 1-inch diameter, solvent welded joints, slotted PVC vent pipe as manufactured by Cathodic Protection Equipment Company, Hattiesburg, MS.
 - b. Slotted vent pipe shall be installed in the active anode column area and extend 15 feet into the inactive column.
2. Inactive Column Vent
 - a. Inactive column vent pipe shall be 1-inch, schedule 40 PVC with solvent welded joints.
3. Surface Vent:
 - a. UV resistant schedule 40 PVC pipe with solvent welded joints.

J. TRAFFIC RATED CAST IRON HATCH

1. Traffic rated 20" diameter cover ring x 12" ID x 10" deep cast iron hatch

K. ANODE JUNCTION BOX

1. Terminal Box: NEMA 250-85, Type 4 or 4X, 11-gauge steel with minimum inside dimensions of 24 inches by 18 inches by 6 inches deep or as required to house and terminate the specified number of anodes lead wires. Hinged door to be provided with padlock hasp and one-piece oil-resistant gasket mounted inside the door to form oil tight and dust free seal.
2. Hardware: Secure door with stainless steel latches and hinges. Screw or bolt mounted or secured doors will not be acceptable.
3. Coating for Box: Hot dipped galvanized in accordance with ASTM A153.
4. Terminals and Connectors: Furnish a separate panel board, buss bar, and terminal strip or terminal block connectors, and necessary fasteners for connecting the anode lead terminals to the rectifier positive lead. Provide separate terminal for each anode lead. Quantity of anodes shall be 12 or as shown on the Drawings.
5. Shunts: Holloway Type RS or Type SW, 0.01 ohm.
6. Equipment Tags: Provide each junction box with original manufacturer's equipment tag that identifies the original equipment manufacturer, model number, serial number,

and any applicable electrical ratings. Equipment tags with vendor or distributor name will not be acceptable.

7. Manufacturer: Anode junction box shall be Universal Model ATB or ATB-S as manufactured by Universal Rectifiers Inc., Rosenberg, TX.

L. CONDUIT, LOCKNUTS, AND STRAPS:

1. Exposed Conduit
 - a. Rigid conduit shall be galvanized steel.
 - b. Fittings, junction boxes, pull boxes, and outlet bodies shall be hot-dipped galvanized iron.
 - c. Buried surfaces of metallic conduit shall be coated with two layers of corrosion protection tape.
 - d. Locknuts, two-hole straps, and other miscellaneous hardware shall be galvanized steel. Galvanized items shall be hot-dipped galvanized in accordance with ASTM A153.
2. Buried Conduit:
 - a. Conduit shall be rigid PVC.
 - b. Locknuts, two-hole straps, and other miscellaneous hardware shall be galvanized steel. Galvanized items shall be hot-dipped galvanized in accordance with ASTM A153.
 - c. Conduit Bushings shall be threaded plastic or plastic coated galvanized steel fittings.
3. Flexible conduit:
 - a. Flexible conduit for AC power from the entrance switch to the rectifier shall be PVC coated, waterproof flexible conduit.
4. Conduit Seal
 - a. Foam duct sealant shall be a two-part urethane foam with 98% closed cell content.
 - b. The foam duct sealant shall have a compressive strength of 300 pounds (ASTM D1691) and shall have a tensile strength of 250 pounds (ASTM D1623).
 - c. The foam duct sealant shall have a flexural strength of 450 pounds (ASTM D790), and shall withstand temperatures from -20° F to 200° F.
 - d. The foam duct sealant shall be chemically resistant to gasoline, oils, dilute acids, and bases.
 - e. The product shall foam and react in five to ten minutes at 70° F.
 - f. When installed, the sealant shall be capable of holding 10 psi water pressure continuously (equivalent of 22 feet water-head pressure)

M. WIRE:

1. Electrical 120/240 VAC Power Wire Subpanel to Rectifier):
 - a. No. 10 AWG, minimum stranded copper with 600-volt, TW, THHN, or HMWPE insulation wire from electrical breaker panel to rectifier.
2. Well Casing Test Lead Wire:
 - a. No. 10 AWG wire from well casing to rectifier shall be stranded copper wire with 600-volt, THHN insulation.
 - b. Furnish with sufficient length to extend splice-free from the well casing to the rectifier.

3. Anode Header Wire (Anode Junction Box to Rectifier):
 - a. No. 4 AWG wire from the rectifier to the anode junction box shall be stranded copper wire with 600-volt, high molecular weight polyethylene (HMWPE) insulation.
 - b. Furnish with sufficient length to extend splice-free from the anode junction box to the rectifier positive terminal.
4. Well Casing Negative Wire:
 - a. No. 4 AWG wire from the rectifier to the Well Casing shall be stranded copper wire with 600-volt, high molecular weight polyethylene (HMWPE) insulation.
 - b. Furnish with sufficient length to extend splice-free from the pipeline to the rectifier negative terminal.
5. Insulation Color/Identification: Wire insulation color shall indicate the function of each wire and shall be as follows:
 - a. Electrical Power cable: Black
 - b. Anodes/Header cable: Black

2.04 AC POWER SERVICE:

- A. Electrical power service will be provided to the new rectifier through the existing well building electrical panel and designated 30 amp breaker.
- B. Grounding
 1. Ground Rod: Copper-clad steel, 5/8-inch diameter, 8-feet long.
- C. Ground Wire and Clamp: No. 6 AWG solid copper wire with a high copper content alloy or bronze bolt-on ground rod clamp.

2.05 PANELBOARDS

- A. Branch circuit panelboards shall be NEMA 3R Service Entrance rated circuit breaker type. Circuit breakers shall be as specified under CIRCUIT BREAKERS, this section. Adjacent double-pole breakers shall be opposite potential.
- B. The panels shall be provided with door locks and two keys. The panels shall be provided with a typewritten sheet installed on door, identifying the use of each branch circuits. Panels shall be furnished with ground bus when bond wires are required.

2.06 DISCONNECT SWITCHES

- A. Disconnect switches shall be visible blade type, non-fusible, heavy-duty class in NEMA 3R enclosures for outdoor installations. Electrical rating of switches shall be 110 percent of the circuit ratings, minimum.

2.07 CIRCUIT BREAKERS

- A. Furnish indicating type circuit breakers providing ON/OFF and TRIPPED positions of the operating handle. Furnish bolt-on thermal-magnetic, quick-make, quick-break circuit breakers which are non-interchangeable in accordance with the NEC. Do not use tandem or dual circuit breakers in normal single-pole spaces. Do not use single-pole circuit breakers with handle ties where multipole circuit breakers are indicated. Use multipole circuit

breakers designed so that an overload on one-pole automatically causes all poles to open. Provide circuit breakers meeting requirements of UL and NEMA AB 1.

2.08 RECTIFIER:

- A. NEMA MR-20-1958 standards. The rectifier shall be designed to operate continuously at full rated output at an ambient temperature of 45 degrees C with an ac input of 115/230 volts, single phase, 60-Hz. The rectifier shall be capable of operation at 110 percent of rated input without damage to the rectifier components.
- B. The rectifying elements shall be a full wave bridge, silicon diode stack. The rectifier stack shall be protected from over voltage surge with selenium surge plates and over current with current-limiting devices. Lightning protection devices shall be provided on the ac input and dc output of rectifier. The stack shall provide a minimum continuous D.C. voltage and current output as shown on the Drawings. Output shall be controlled with a minimum of 24 evenly divided transformer tap settings.
- C. Supply the rectifier with separate D.C. voltage and current meters and external panel mounted shunt in series with the ammeter. The meters shall be accurate to within 2 percent of the actual voltage and current output and shall be either d'Arsonval jeweled movement or digital electronic meters. Meters shall be tested and calibrated at the factory. Meters will be tested in the field for accuracy. Inaccurate meters shall be replaced by the manufacturer.
- D. Transformer, ac circuit breaker, rectifier stacks, constant current control circuit boards, lightning arresters, D.C. output meters, and all wiring connections shall be housed in an 11-gauge, steel, hot-dipped galvanized cabinet suitable for pole mounting. The cabinet shall be provided with hinge doors on the front and both sides or the front and one side with tip-out rack assembly. Cabinet shall be provided with hasp for padlocking and shall be sealed to protect the interior components from weather, vandalism, and nest building insects.
- E. Supply rectifier with integrated 115 VAC convenience outlet.
- F. Supply rectifier with an operation and maintenance manual that includes an electrical schematic of the rectifier, parts list with replacement part numbers, and troubleshooting procedures. Provide two complete sets of spare fuses packaged in a sealed, waterproof bag in each rectifier. Other spares parts to be provided shall include:
 - 1. 1 ea. AC. Input lightning arrester
 - 2. 1 ea. DC. Output lightning arrester
- G. Rectifier will be labeled with the Manufacturers equipment tag. No vendor or distributor tags will be accepted.
- H. Rectifier manufacturer shall be Universal Rectifiers, Inc., Rosenberg, Texas. (www.universalrectifiers.com)

2.09 THERMITE WELD MATERIALS

- A. General:
 - 1. Thermite weld materials consist of wire sleeves, welders, and weld cartridges according to the weld manufacturer's recommendations for each wire size and pipe or fitting size and material.
 - 2. Welding materials and equipment shall be the product of a single manufacturer. Interchanging materials of different manufacturers is not acceptable.
- B. Molds: Graphite. Ceramic "One Shot" molds not acceptable.
- C. Adapter Sleeves:
 - 1. For No. 12 AWG and No. 2 AWG wires.
 - 2. Prefabricated factory sleeve joint bonds or bond wires with formed sleeves made in the field are acceptable. Attach field-formed joint bonds sleeves with the appropriate size and type of hammer die furnished by the thermite weld manufacturer.
 - 3. Extend wire conductor 1/8 inch beyond the end of the adapter sleeve.
- D. Cartridges:
 - 1. Steel: 32 grams, maximum.

2.10 COATING REPAIR MATERIAL FOR PIPE AND FITTINGS

- A. General:
 - 1. Spot repair damage at thermite weld connections on coated steel pipe with fast cure epoxy coating.
 - 2. Where connections to bare pipe are made, thermite welds shall be coated to protect the weld from corrosion.
- B. Epoxy Coating:
 - 1. 100 percent solids, fast curing epoxy suitable for submerged or buried conditions.
 - 2. Manufacturers and Products:
 - (1) Denso; Protal 7125 (low temperature) or Protal 7300.
 - (2) Tapecoat; TC 7010.
 - (3) 3M; ScotchKote 323.
 - (4) "Or-equal."

2.11 CONCRETE

- A. Mix:
 - 1. Cement: ASTM C150-89, type II with minimum cement content of 564 pounds per cubic yard.
 - 2. Coarse Aggregate Size: ¾ inches
 - 3. Minimum Compressive Strength: 3,000 psi at 28 days with maximum water-cement ratio of 0.45.
- B. Air Entrainment:
 - 1. ASTM C260, nontoxic after 30 days and containing no chlorides.
 - 2. Not less than 5 percent entrained air at the project site.

2.12 ANCILLARY MATERIALS

- A. Shunts: Shunts shall be 0.01-ohm Holloway Type RS.
- B. Compression Connectors:
 - (1) For in-line, tap, and multi-splice, furnish "C" taps made of conductive wrought copper, sized to fit the wires being spliced.
 - (2) Provide crimp tool and dies as recommended by the manufacturer for the wire and connector size.
 - (3) Manufacturer and Product:
 - (a) Burndy; Type YC.
 - (b) "Or-equal."
- C. Electrical Tape:
 - 1. Linerless rubber high-voltage splicing tape and vinyl electrical tape suitable for moist and wet environments.
 - 2. Manufacturer and Product: 3M Products; Scotch 130C and Scotch 88.

2.13 OTHER MISCELLANEOUS MATERIALS

- A. Rectifier and Anode Junction Box Support
 - 1. Material: Steel P-1000 Unistrut
 - 2. Coating: Hot-dip galvanized
- B. Deep Well Vent Pipe Support
 - 1. Material: 4" steel c-channel post, 6' long.
 - 2. Coating: Hot-dip galvanized after fabrication in accordance with ASTM A153.

PART 3 WORKMANSHIP

3.01 GENERAL:

- A. The installation of the facilities herein specified and described shall conform to the latest applicable rules as set forth herein and on the Drawings. The workmanship shall be of the highest grade and shall be in strict accordance with material manufacturer's instructions. Equipment or materials damaged in shipment or in the course of installation shall be replaced. The Drawings indicate the extent and general arrangement of the anode beds, rectifiers, generator, wires, conduits, and associated items. If departures from the Drawings are deemed necessary by the Contractor, details of such departures and the reasons therefore shall be submitted to the Engineer for review as soon as practical, but not later than 30 days before installation.
- B. The Contractor shall examine all Drawings and coordinate work to avoid conflicts, errors, delays, and unnecessary interference with the construction of the facilities and to avoid duplication of the work such as excavation, filling, etc. In the event of any conflicts in the Specifications, the Engineer shall be consulted.

3.02 STORAGE AND HANDLING:

- A. Contractor shall be responsible for all equipment and materials. The Contractor shall inspect the condition of the materials and immediately report items that are identified as defective,

or a condition that may affect the performance of the system, to SSLC or their Representative.

- B. Store all anodes off the ground and keep them dry at all times. Protect against weather, condensation, and mechanical damage.
- C. Immediately remove from the project site all damaged anodes. Anodes shall not be lifted or held by the lead wire.
- D. Anode backfill material that has become wet will not be acceptable.

3.03 DEEP ANODE GROUND BED INSTALLATION:

A. General:

1. The new anode deep well shall be connected to the positive terminal of the new rectifier. Drilling, electrical logging of hole, lowering of anodes, coke breeze placement, and backfilling shall be done in a continuous operation and shall be observed by the ENGINEER.
2. CONTRACTOR shall be a certified water well driller in current standing in the State of Utah and shall obtain all drilling permits, submit notification of work, and submit drilling logs in accordance with state regulations.
3. Driller will be solely responsible for all aspects of the drilling and well construction until the well completion.
4. Drilling of the ground bed shall be in accordance with the methods and procedures of the best recognized drilling practices and shall comply with the rules and regulations of the State, County, City, or other governing bodies having jurisdiction.
5. Deep anode ground bed holes shall be sealed as specified herein or as required by well drilling regulations. The most stringent requirements shall apply.
6. Take necessary precautions to avoid entrance of foreign matter, movement of soil strata, or collapsing of the hole during the progress of the work. Should movement of soil strata or collapse of the drilled hole interfere with proper completion of the ground bed, recover the wires and anode strings if necessary and ream or re-drill the well.
7. The driller shall maintain a log describing the depth and type of formations encountered during drilling. Copies of the log shall be submitted to the ENGINEER and appropriate authorities.
8. Wells not completed in accordance with the State of Utah well regulations and these specifications will be subject to rejection and replacement at the CONTRACTOR's sole expense.

B. Drilling:

1. Coordinate the actual location of the ground bed in the field with the ENGINEER before drilling begins. Verify and locate all buried utilities prior to beginning drilling operations.
2. Contractor shall collect and store all drilling fluids, water, muds, and spoils in a manner to avoid any releases. The storage vessel will be selected by the Contractor to be compatible with the drilling method and volume of materials generated by the Contractor's selected drilling method. All water, drilling muds, and spoils must be contained and collected. Release of water, drilling muds, and spoils is not allowed and

the Contractor shall bear all costs to contain and store, and for any penalties, cleanup costs, or fines, if released.

3. CONTRACTOR's containment system shall prevent mud from entering storm drains, gutters, streams, or leaving the project site.
4. CONTRACTOR shall be responsible for cleaning all spills and overflows and, if necessary, will clean storm drains and manholes impacted by uncontained drilling fluids.
5. **Excavation of a temporary mud pit on the project site will not be permitted.**
6. CONTRACTOR shall transport and dispose of all drilling fluids and cuttings to an approved disposal location.
7. Spillage or leakage of oil or hydraulic fluids shall be contained and controlled by the Driller. All oil contamination on the drilling site resulting from drilling equipment shall be contained, cleaned up, and properly disposed of off the project site.
8. Construct the well and set casing round, straight, and plumb.
9. Set surface casing prior to completion of the first 100 feet of the well. Casing, other than surface casing, shall not be installed or left in the well unless in the driller's estimation it is necessary for successful completion of the well. Plastic surface casing shall not extend into the active column.
10. If steel casing is installed into the active column, it shall be cut 100 feet below the surface and the top portion jacked up to provide a 25 foot, minimum, separation between the upper casing and the top of the active column. Complete cutting of the steel casing before the anodes are installed. Jacking operations may be completed before or after installation of the anode assembly at the CONTRACTOR's option.
11. Over drill the well to compensate for sloughing or heaving during anode installation.

C. Electrical Logging:

1. Flush the hole and electrically log the hole in the presence of the ENGINEER to determine the soil characteristic along the length of the well.
2. Electrical Logging Method: make a resistance to earth reading as the first anode is lowered into the hole. Test using suitable meters, connections to a low resistance ground, and a method to measure the down hole wire length or provide footage identification markings on the wire.
3. Record resistance readings and depth from the surface continuously or at 5-foot increments for the entire hole depth. Note depth of groundwater at time of electrical logging.

D. Lowering of Anodes:

1. Anode installation to be observed by the ENGINEER
2. Install anodes and coke breeze the same day as the completion of the drilling and electrical logging. If loading is delayed more than 8 hours after drilling is completed or if loading cannot be completed before sunset or end of working hours, whichever comes first, the drill stem and bit should be reinserted and run back to the bottom of the hole with sufficient rotation and circulation to ensure that the drilled hole is prepared for anode installation.
3. If the hole is drilled with mud, the hole shall be flushed out with clean water in a continuous process before or after the anodes are lowered, at the CONTRACTOR's option, until the return fluid is sufficiently clear to allow proper settlement of the coke. The ENGINEER shall inspect the return fluid before coke breeze pumping will be permitted to begin.
4. Attach anode centralizers to each of the anodes prior to lowering.

5. Prepare to load the groundbed by assembling the various components and attach them to the steel standpipe. Securely attach anodes to the standpipe using steel banding material or appropriately sized steel hose clamps. Care shall be taken to ensure that the anodes are not damaged during this process and that the anodes are secured in such a way that they do not move. Secure the vent pipe and anode lead wires to the standpipe using a minimum of five wraps of vinyl electrical tape. Carefully lower the standpipe, with the anode string attached, into the hole. Securely attach each successive anode and other down-hole materials to the standpipe as it is lowered into the hole. Add additional joints of standpipe to the top of the string to accommodate all anodes. Ensure that the weight of the anode string is born by the standpipe and not the vent pipe or anode lead wires.
6. Provide sufficient slack in the anode wires to prevent damage during the anode and coke breeze installation.
7. The bottom of the vent pipe shall be capped and each joint of pipe solvent welded in accordance with the manufacturer's recommendations. CONTRACTOR shall prevent foreign matter from entering the vent pipe during anode installation and grout sealing placement. The CONTRACTOR shall clear any blockage of the vent pipe. Failure to clear the vent pipe will result in rejection of the groundbed. Vent pipe shall be permitted to flow water during coke breeze pumping to flush any mud and cuttings from the vent.
8. Prior to installation, any damage to anodes or cut, gouged, or scraped wire insulation will result in rejection of the anode and lead wire. CONTRACTOR shall implement means to protect the anode lead wires during and following anode installation.
9. Fit the standpipe with a reverse-threaded coupling assembly above the top anode so the sections of standpipe above the top anode can be retrieved from the hole after the complete anode string is lowered into the hole and secured. Other methods of standpipe retrieval from the inactive column shall be preapproved by ENGINEER.

E. Backfilling of Anode Hole:

1. **Top-loading the coke breeze, by pouring coke breeze into the hole will not be permitted.**
2. Keep hole full of water during installation of the coke breeze.
3. Prepare coke breeze slurry with potable water in accordance with the manufacturer's written recommendations.
4. Using the standpipe as a pump pipe, begin pumping coke breeze at a steady, continuous rate. Mix and pump coke breeze and water in a continuous operation until the hole is filled to the correct level. Do not stop pumping until all coke breeze has been pumped into the hole.
5. Throughout coke breeze pumping, displaced water and mud shall be collected and stored for disposal. Discharge of mud and water into the storm drains or public right-of-way, or roadways will not be allowed. CONTRACTOR will be responsible to determine and provide the storage capacity required. Should the water and mud storage capacity be inadequate for the project, work will be terminated until adequate capacity is provided. Loss of materials or collapse of the hole due to termination of the loading operation will be at the CONTRACTOR's sole expense.
6. Care shall be taken during pumping of the coke breeze to avoid coke breeze bridging or collapse of the hole. If the hole collapses or coke breeze bridges, the Contractor shall take necessary steps to resolve the problem at CONTRACTOR sole expense.
7. Restrain anodes from settling during and following coke breeze installation for 12 hours, minimum, for coke breeze settlement and compaction. Maintain anode restraint until all anode settlement stops.

8. After the coke breeze is installed and has settled for 12 hours, the Engineer shall measure the depth to the top of the coke breeze column. If required, additional coke breeze shall be added by pumping or top loading to the specified elevation.
9. When the coke breeze has properly settled and has been placed to the proper depth, fill the inactive column with the bentonite grout sealing material to within 4 feet of ground surface. Use native material to fill the remainder of the hole to grade.
10. At all times during the progress of the work, the Contractor shall protect the groundbed in such a manner as to effectively prevent tampering or entrance of foreign matter.

F. Placement of Casing Seals:

1. Sanitary Casing Seal
 - a. Install sanitary seal between casing and soil.
 - b. The ENGINEER shall review the method of seal placement. If the sealing will be placed below ground water elevation, no method will be permitted that does not force the sealing material from the bottom of the annular space to the surface.
 - c. The seal placement shall be done continuously and in a manner that will ensure the entire filling of the annular space in one operation.
 - d. Place casing sanitary seal by tremie pipe if hole is greater than 25 feet deep or groundwater is present within the hole.
 - e. No drilling operations will be permitted until the neat cement or grout has cured. Curing time for Portland cement, Type I or II, is a minimum of 72 hours and for type III a minimum of 36 hours. Addition of an accelerator will be permitted subject to written approval from the State Water Engineer.
2. Casing Seal
 - a. After the coke breeze settlement is completed, anode settlement is stopped, and all wires have been terminated, the casing shall be filled with the specified sealing material.
 - b. Placement of the sealing material will be with tremie pipe only for slurry type seals. Inserting of the tremie pipe shall be performed in a manner that will not damage the wire insulation.
 - c. Granular sealing materials may be top loaded but shall be performed at a rate that will not result in bridging of the seal material.

G. Anode Wire Terminations

1. The CONTRACTOR shall cut a smooth hole in the side of the casing for routing wires to the anode junction box. The penetration of the casing shall be watertight.
2. Anode wires shall be installed in conduit from the ground bed to the anode junction box.
3. The completed electrical conduit shall be watertight.
4. Seal both ends of the conduit from the ground bed with urethane foam to prevent ground bed gases from entering the junction box.
5. Anode lead shall be terminated in numerical order in correspondence to anode depth.
6. Anode header cable from anode junction box shall be terminated to the rectifier positive terminal. Install a new two-barrel lug on rectifier positive terminal stud to serve as a connection for new anode header cables.

H. Groundbed and Vent Pipe Termination

1. Connect the surface pipe directly to the UV resistant PVC vent pipe with a solvent welded by threaded connection adapter.
2. Terminated vent pipe as shown on the Drawings.
3. After all wire terminations and vent pipe connections are completed, complete filling of the inactive column with the specified sealing material.
4. Plumb and support vent pipe during seal placement and while the seal sets or compacts.

I. Cleanup

1. The drilling site shall be kept neat and orderly under all circumstances.
2. All excess equipment and cuttings shall be removed daily when required by the prevailing conditions at the drilling site. The Contractor shall remove all mud, waste products, and tailings from the project site and dispose of at an approved disposal site.
3. The project sites shall be restored to a condition equivalent to their original condition before construction started and to the satisfaction of the ENGINEER. Damage to sidewalks, curbs, roads, and driveways shall be restored to original condition or better.

3.04 RECTIFIER INSTALLATION:

- A. The Contractor shall provide the rectifier mounting hardware, conduit run and connection to designated breaker at 700 East Well panel box, AC power wiring from the breaker panel box to the rectifier, and all AC and DC electrical hardware necessary for the rectifier installation and operation.
- B. The rectifier installation and location shall be as shown on the Drawings, except when the Drawings and local or State electrical codes are contradictory. In such cases, local or State electrical codes shall prevail. The Contractor shall coordinate, install, and connect an ac power service to the rectifier location.
- C. DC leads from the anode and well casing to the rectifier shall be No. 4 AWG wire with the specified insulation. Lead wires in conduit shall be buried a minimum of 36 inches below finished grade. All leads shall be free of splices, except where shown. Insulation on all anode, structure, and rectifier leads shall be free of cut or abraded areas.
- D. Provide the Engineer with 10 working days prior notice of the completion of the rectifier and groundbed installation to allow scheduling of the required energizing and testing procedure.

3.05 AC POWER SERVICE:

- A. The CONTRACTOR shall provide all materials, labor and equipment required for installation of the AC service and pay all building inspection fees and permits that may be required for electrical service connection by the utility or others.
- B. Electrical power service installation shall be coordinated with the local electric utility by the CONTRACTOR and shall meet local electrical utility requirements and shall meet or exceed local or NEC codes.

- C. Cost for service connection and power line extension to the Contractor provided and meter base will be paid by the OWNER.

3.06 TRENCHING AND BACKFILL

- A. Complete excavations and trenching regardless of the type, nature, or condition of materials encountered, and as required to accomplish specified construction to lines and grades shown.
- B. Take care to avoid damage to existing structures and utilities during excavating and trenching process. CONTRACTOR may modify location, where approved by the ENGINEER, to minimize possible damage to existing structures. Trench shall be of uniform depth and width, level, smooth, and free of sharp objects.
- C. Scrape top soil to the side first so upon backfilling the top soil can be returned as the topmost layer of soil.
- D. Slope, shore, or brace excavations and trenches in accordance with OSHA regulations as necessary to prevent caving during excavation in unstable material, or to protect adjacent structures, property, workers, and the public.
- E. Backfill trench with excavated backfill materials, unless otherwise specified. Compaction requirements shall be as specified for the pipeline or to 90 percent compaction, whichever is more stringent. Backfill within 5 feet of roadways, paved areas, or other traffic areas shall be compacted to 95 percent.
- F. Do not use backfill material of frozen or consolidated debris. Leave the trench with the excess backfill material neatly mounded not more than 4 inches above the existing ground level for the entire width of the trench.

3.07 CONDUITS

- A. Secure conduits entering cabinets, junction boxes, or terminal boxes with double locknuts, one on the outside and one on the inside.
- B. Install conduit parallel or horizontal, and plumb to slabs. All changes in direction shall be at 90 degrees using either radius bends or outlet boxes. Conduit crossings shall be perpendicular to the other conduit or pipe.
- C. Install insulated bushings and insulated throat connectors on the ends of rigid metallic conduit.
- D. Use watertight couplings and connections. Install and equip boxes and fittings to prevent water from entering the conduit or box. Seal unused openings.

3.08 ANODE JUNCTION BOX INSTALLATION

- A. Install anode junction box on P-1000 Unistrut a minimum of 12" adjacent to rectifier and install conduit on anode lead cables into junction box, extending below grade, 18-inches, minimum.

- B. Connect the rectifier positive lead and anode wires to the junction box terminals with the shunts, bus bars, and appropriate fasteners.
- C. Maintain sufficient slack to keep the wire from being unduly stressed, damaged, or broken during backfill.

3.09 CONCRETE:

- A. CONTRACTOR shall finish all concrete work to a smooth troweled finish with radius edges.
- B. All forms shall be removed from concrete work prior to final acceptance and removed from the project site.

3.10 QUALITY CONTROL TESTING

A. General:

- 1. Contractor shall correct all construction defects identified during testing.
- 2. Provide engineer with 7 days advance notice of completion for Engineer acceptance testing.
- 3. Contractor required testing as defined herein shall be performed by a Corrosion Expert, with qualifications as specified this section, whom is an employee or subcontractor to the Contractor.

B. Functional Testing of Cathodic Protection Stations

- 1. Contractor shall perform a functional test of each cathodic protection station installed.
- 2. Functional testing shall demonstrate the following items are functional and ready for Engineer performed energizing and testing:
 - a. AC power service from meter base to rectifier circuit breaker is operational and functional.
 - b. Rectifier produces dc voltage and current output up to the maximum dc current output rating of the rectifier.
 - c. Rectifier controller cards are fully functional and providing control of the rectifier output as specified.
 - d. All impressed current anodes are discharging dc current.
- 3. Upon completion of functional testing, the rectifier shall be left in a de-energized state for Engineer performed System Tests and Inspection.
- 4. If electrical service is not installed at the time of the functional test, the contractor shall provide a generator with the wattage and voltage output necessary to power the system from the meter base utility connection terminals and complete all testing as defined for functional testing.

3.11 TESTS AND INSPECTION

A. General

- 1. Functional testing shall be performed by the Contractor, in the presence of the Engineer to demonstrate that the completed cathodic protection station is operational.
- 2. After the installation of the cathodic protection system is completed, SSLC or their representative shall perform tests throughout the protected system to ensure proper

installation of the cathodic protection system and conformance with AMPP cathodic protection criteria.

3. Verify continuity of new anode header cable between rectifier and anode junction box.

B. Cathodic Protection System Energizing and Testing:

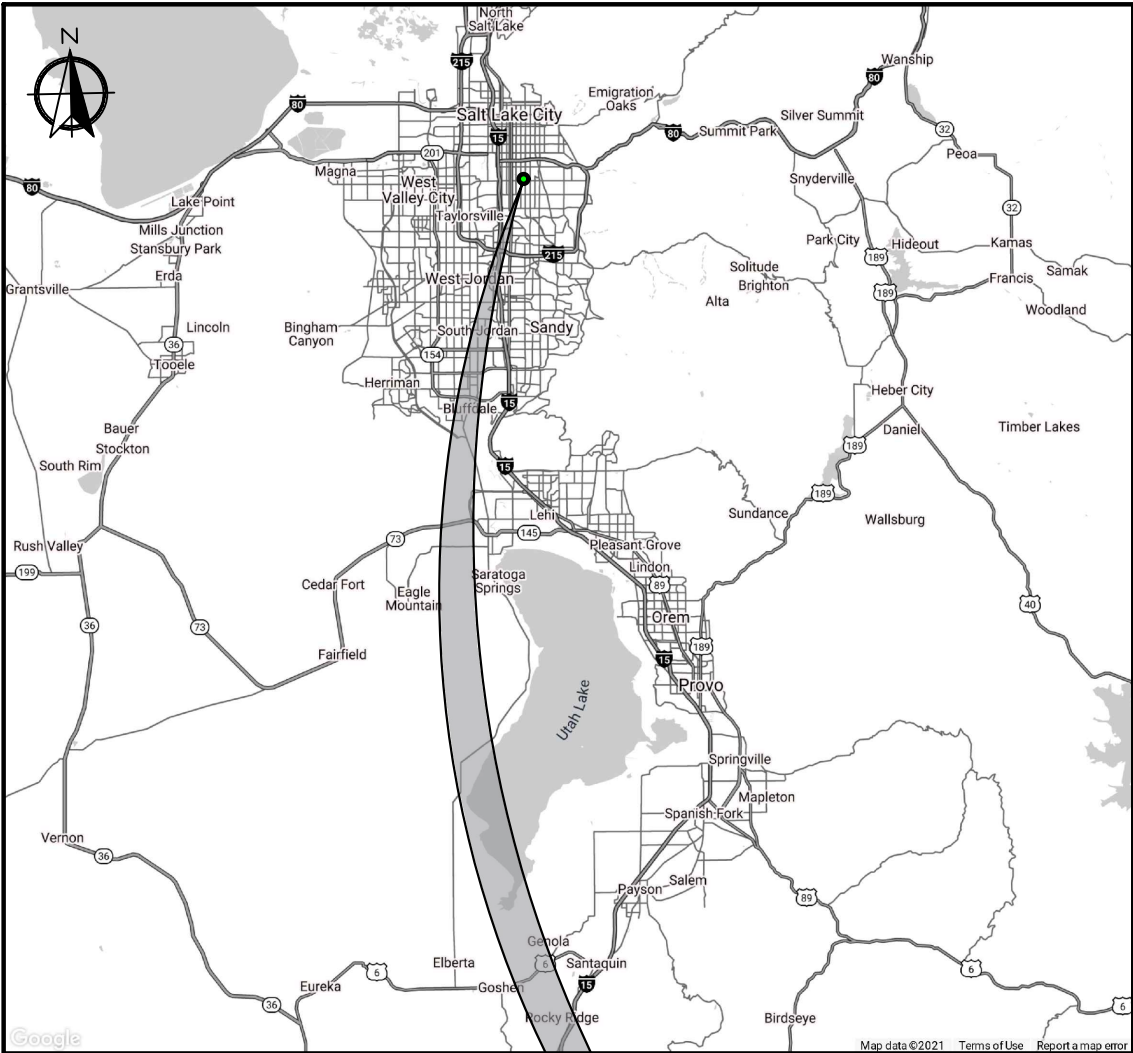
1. Initial Survey: Conduct an initial potential survey at all test points and measure the baseline (native) well casing-to-soil potential before energizing the rectifier. Record GPS coordinates for each test station associated with this project.
2. Functional Testing:
 - a. Perform functional testing in presence of Engineer.
 - b. When construction of cathodic protection station(s) is completed, notify Engineer that installation is ready to be turned ON.
 - c. Conduct operating test of rectifier, individual anodes, test points, and all other associated equipment to demonstrate equipment is installed correctly and operating properly.
3. Rectifier Meters: Field test meters for accuracy; replace inaccurate meters.
4. Energizing and Testing:
 - a. General:
 - (1) Upon successful completion of functional testing, energize rectifiers at low current output and increase current output as required. Complete additional testing and adjustment to provide cathodic protection at all test points in accordance with NACE SP0169.
 - (2) Record baseline potentials at all test points.
 - (3) Interrupt all cathodic protection rectifiers and obtain ON and OFF potentials at all test points included in this project.
 - b. Initial Testing and Adjustment:
 - (1) Adjust cathodic protection system to achieve polarized (instant OFF) pipe-to-soil potentials in the range of -850 millivolts to -1150 millivolts with reference to a copper-copper sulfate reference electrode (CSE).
 - (2) Conduct stray current interference testing on other nearby pipelines and structures that are not connected to the cathodic protection system. Measure pipe-to-soil potential with current interruption in process. Report any significant interference identified and provide recommendations for mitigation.
 - (3) Measure and record individual anode current at anode junction box.
 - c. Final Testing, Adjustment, and Report:
 - (1) At least 30 days, but not more than 60 days, after completion of initial testing and adjustment, repeat all tests and make final adjustments to the rectifiers.
 - (2) After approval of test data, provide final test report with all data and narrative describing construction, testing and adjustment.
 - (3) All test data shall be submitted in electronic file compatible with Microsoft Excel for Office, most recent version. The data shall be organized in tabular form with location descriptions and GPS coordinates.
 - (4) Witness of Testing and System Adjustment: Engineer may witness any or all testing and adjustment. Provide at least 7 days advance notice of work.

END OF SECTION

APPENDIX A



SSLC 700 EAST WELL - CATHODIC PROTECTION SYSTEM



UTAH LOCATION MAP

NTS

PROJECT
LOCATION

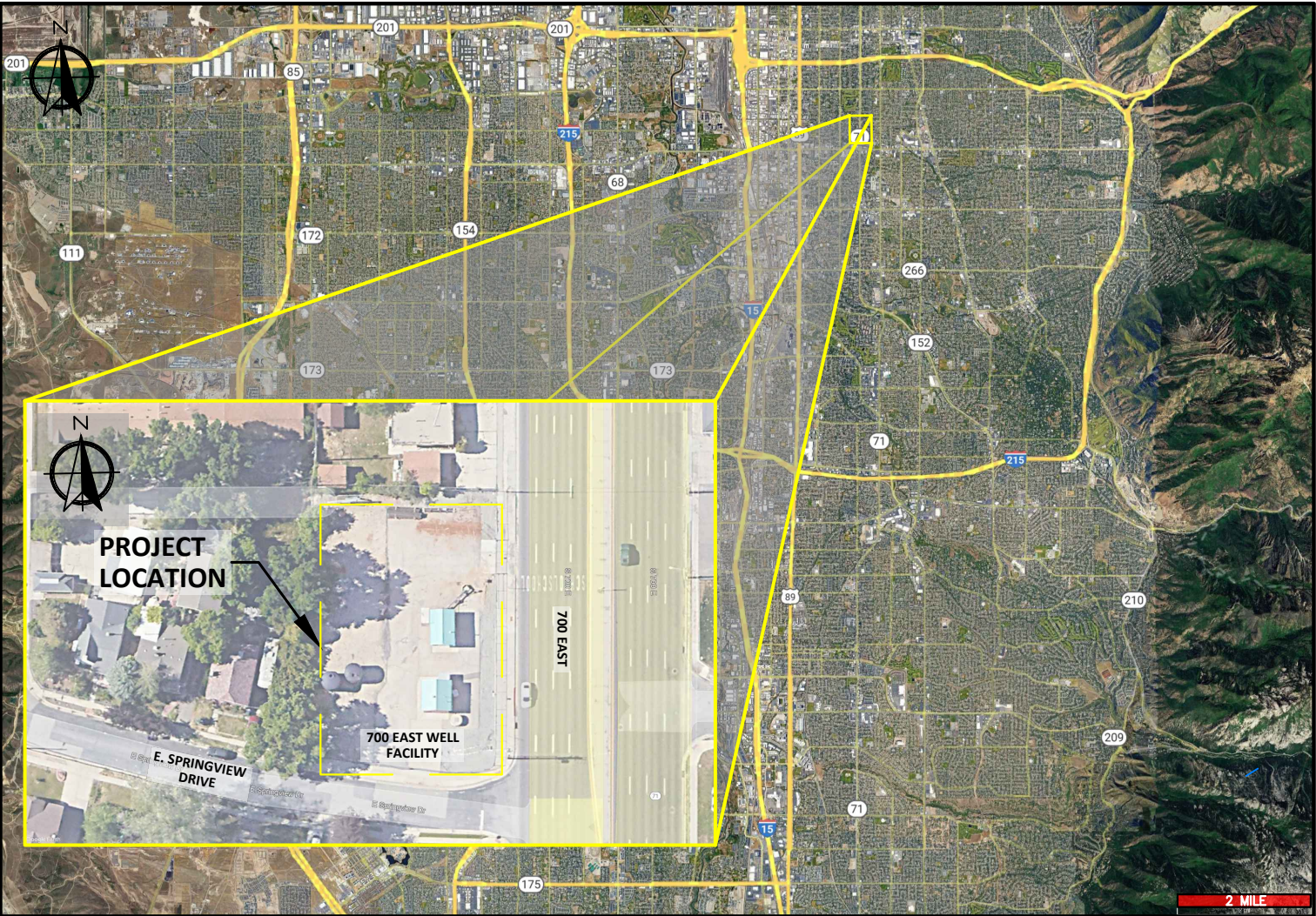
CONTACT INFORMATION

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SOUTH SALT LAKE CITY

WATER DIVISION MANAGER
JASON TAYLOR
PHONE: (801) 483-6014
JTAYLOR@SSLC.GOV



PROJECT LOCATION MAP

NTS

SHEET INDEX

SHEET	DESCRIPTION
1	TITLE SHEET
2	CATHODIC PROTECTION SYSTEM SITE PLAN
3	SITE PHOTOS
4	GENERAL DETAILS
5	GENERAL DETAILS



DSGN	ESL				
DR	ZGS				
CHK	ESL				
APVD	ESL	NO.	DATE	ISSUE/REVISION	BY

VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY.



CITY OF SOUTH SALT LAKE
700 EAST WELL

CATHODIC PROTECTION SYSTEM
DESIGN PROJECT

SHEET	1 OF 5
DWG	CP1
DATE	2024-08-19
CONTRACT	HAL-012

NOTES:

GENERAL

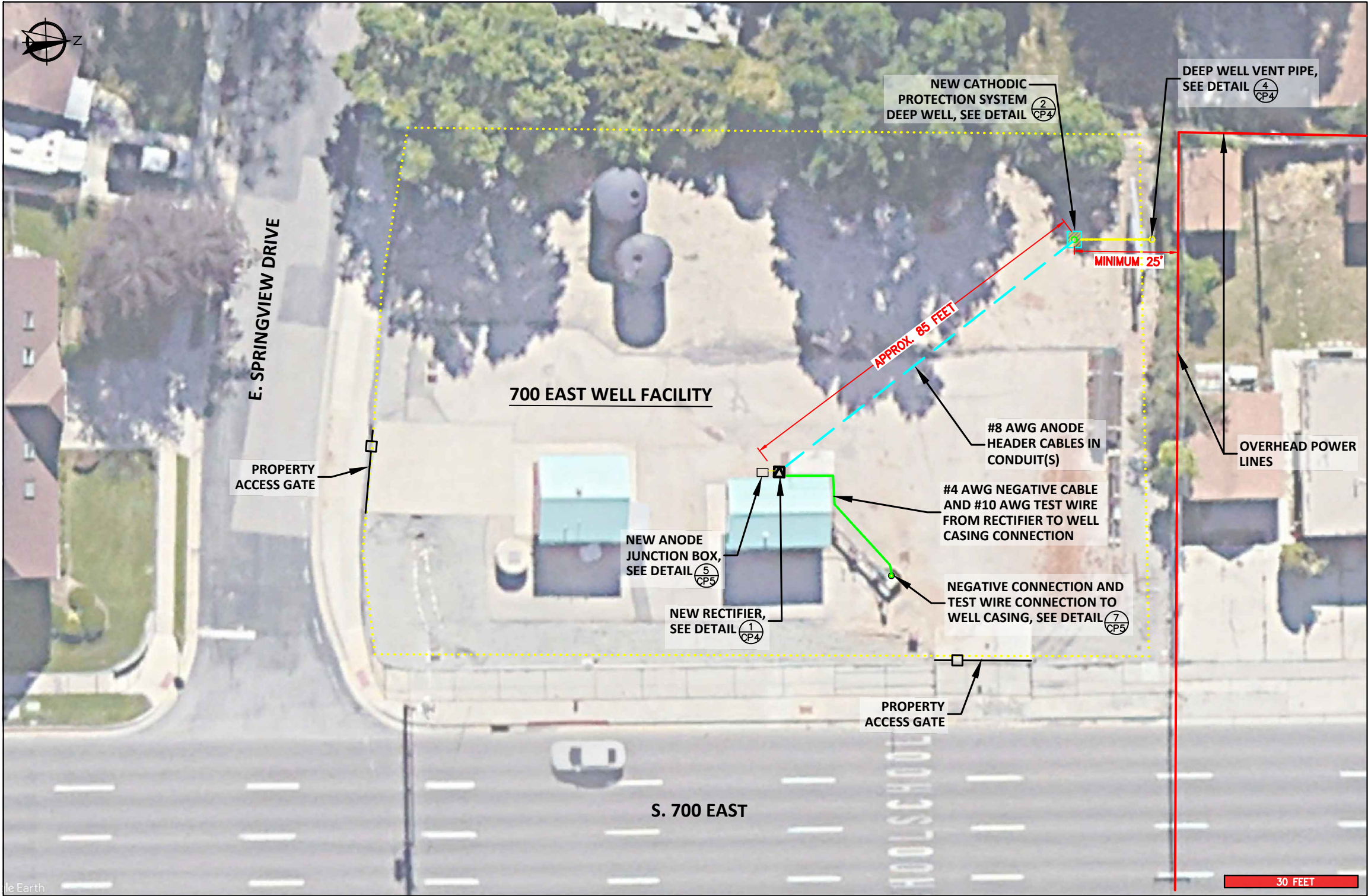
- CONTRACTOR SHALL PROTECT EXISTING SOUTH SALT LAKE EQUIPMENT AND COMPONENTS. DAMAGE WILL BE REPAIRED AT THE CONTRACTORS SOLE EXPENSE.
- CONTRACTOR SHALL NOT BLOCK ACCESS OR LIMIT THE USE OF ANY PROPERTY DURING CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING SITE TO PREWORK CONDITIONS.
- ALL WORK SHALL BE PERFORMED WITHIN DESIGNATED BOUNDARIES, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CLAIMS TO ADJACENT PUBLIC OR PRIVATE PROPERTY.
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO SOUTH SALT LAKE ENGINEERING STANDARDS UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL VERIFY THE EXTENT OF THE EASEMENT AND APPROVED WORK AREA WITH SOUTH SALT LAKE PERSONNEL PRIOR TO BEGINNING WORK.
- SITE INCLUDES ELECTRICAL POWER PANEL INSIDE 700 EAST WELL BUILDING THAT IS TO BE UTILIZED FOR NEW CATHODIC PROTECTION SYSTEM POWER.
- ALL BURIED WIRE AND CABLE SHALL BE ROUTED INSIDE RIGID PVC CONDUIT.
- OVERHEAD ELECTRICAL POWER LINES EXTEND THROUGH THE PROPERTY. CONTRACTOR SHALL CONDUCT WORK ACTIVITIES IN ACCORDANCE WITH ROCKY MOUNTAIN POWER REQUIREMENTS WHEN WORKING IN CLOSE PROXIMITY TO POWER LINES.

CATHODIC PROTECTION SYSTEM

- SEE CPS SITE PLAN FOR GENERAL LOCATION OF CATHODIC PROTECTION SYSTEM COMPONENTS.
- CATHODIC PROTECTION INSTALLATIONS SHALL BE ORIENTED AS SHOWN ON THE DRAWINGS. MODIFICATION TO THE INSTALLATIONS SHALL BE APPROVED BY THE OWNER AND ENGINEER.
- CONTRACTOR SHALL USE SOUTH SALT LAKE APPROVED EXCAVATION METHODS OR AS SPECIFIED, WHICH COULD INCLUDE VACUUM EXCAVATION, FOR UPPER 9 FEET OF DEEP WELL ANODE HOLES TO VERIFY NO UTILITIES ARE PRESENT BEFORE BEGINNING DRILLING OPERATIONS.
- ALL EXCAVATED MATERIAL, CONSTRUCTION WATER, GROUNDWATER, ETC. SHALL BE FULLY CONTAINED ON THE PROJECT SITE, WITHIN AREAS DESIGNATED BY SOUTH SALT LAKE, AND SHALL NOT BE PERMITTED TO LEAVE THE WORK AREA OR FLOW OVER THE GROUND SURFACE. ANY SPILLAGE, EROSION OR LEAKAGE OF EXCAVATED MATERIALS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND THE SITE RESTORED TO PRE-CONSTRUCTION CONDITION. EXCAVATED MATERIAL THAT IS TEMPORARILY STOCKPILED ON SITE MAY REQUIRE WATERING OR PROTECTIVE COVERINGS TO PREVENT MATERIAL FROM BLOWING OR BEING WASHED OFF SITE.
- DEEP ANODE GROUND BED TO BE DRILLED BY A UTAH LICENSED WATER WELL DRILLER IN ACCORDANCE WITH THE STATE REGULATIONS FOR CATHODIC PROTECTION WELLS, EXCEPT WHERE A UTAH STATE APPROVED MODIFICATION IS SHOWN.
- DRILLING MUD, WATER AND CUTTINGS SHALL BE FULLY CONTAINED ON THE PROJECT SITE AND SHALL NOT BE PERMITTED TO FLOW OVER THE GROUND SURFACE, ANY SPILLAGE OR LEAKAGE OF DRILLING MUD AND CUTTINGS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND THE SITE RESTORED TO ORIGINAL CONDITION.
- CONCRETE WORK SHALL BE OF THE HIGHEST QUALITY, FORMS SHALL BE SET LEVEL AND SQUARE, CONCRETE FINISH SHALL BE TROWELLED SURFACE AND RADIUS EDGES, ALL FORM WORK SHALL BE REMOVED FROM THE CONCRETE AFTER CURING IS COMPLETED.
- USE STANDPIPE CONFIGURATION FOR CATHODIC WELL INSTALLATION TO ENABLE COKE BACKFILL TO BE PUMPED FROM THE BOTTOM OF THE HOLE UP. NO TOP LOADING OF COKE SHALL BE ALLOWED.

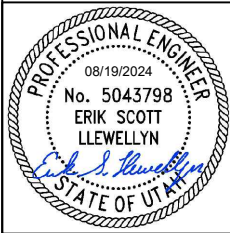
ELECTRICAL SERVICES

- BURY ALL UNDERGROUND PRIMARY SERVICE CONDUIT 36-INCHES MINIMUM, MARK WITH TRACEABLE WARNING TAPE.
- CONTRACTOR SHALL PROVIDE A LICENSED ELECTRICIAN TO INSTALL AND WIRE ALL ELECTRICAL SERVICES, WHERE REQUIRED BY ELECTRICAL CODE AND/OR SOUTH SALT LAKE.
- CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS REQUIRED WITH THE LOCAL CITY OR COUNTY AGENCY FOR INSPECTION AND APPROVAL OF ELECTRICAL SERVICE INSTALLATION.
- CONTRACTOR SHALL PROVIDE THE MATERIALS AND EQUIPMENT TO SUPPLY POWER TO THE NEW CATHODIC PROTECTION RECTIFIER AS SPECIFIED, AS REQUIRED BY ELECTRICAL CODE, AND LOCAL POWER COMPANY REQUIREMENTS.



SSLC 700 EAST WELL - CATHODIC PROTECTION SYSTEM SITE PLAN

NTS



DSGN	ESL				
DR	ZGS				
CHK	ESL				
APVD	ESL	NO.	DATE	ISSUE/REVISION	BY APVD

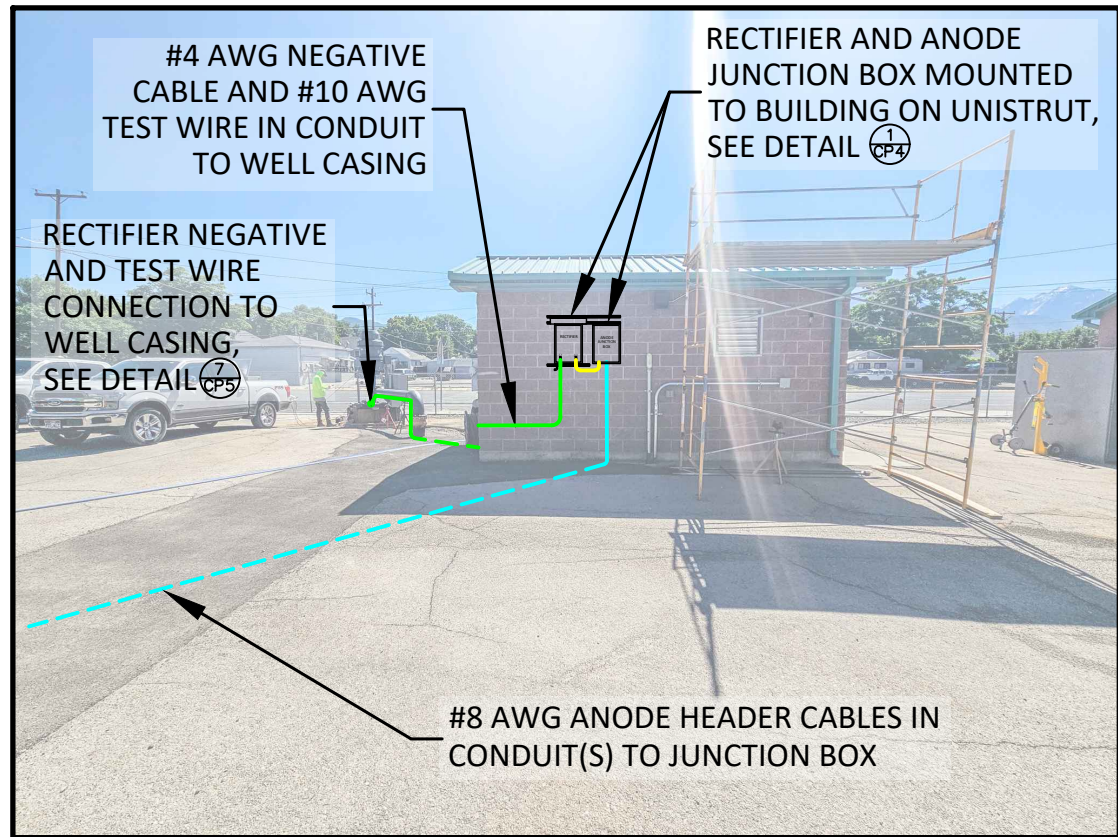
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.



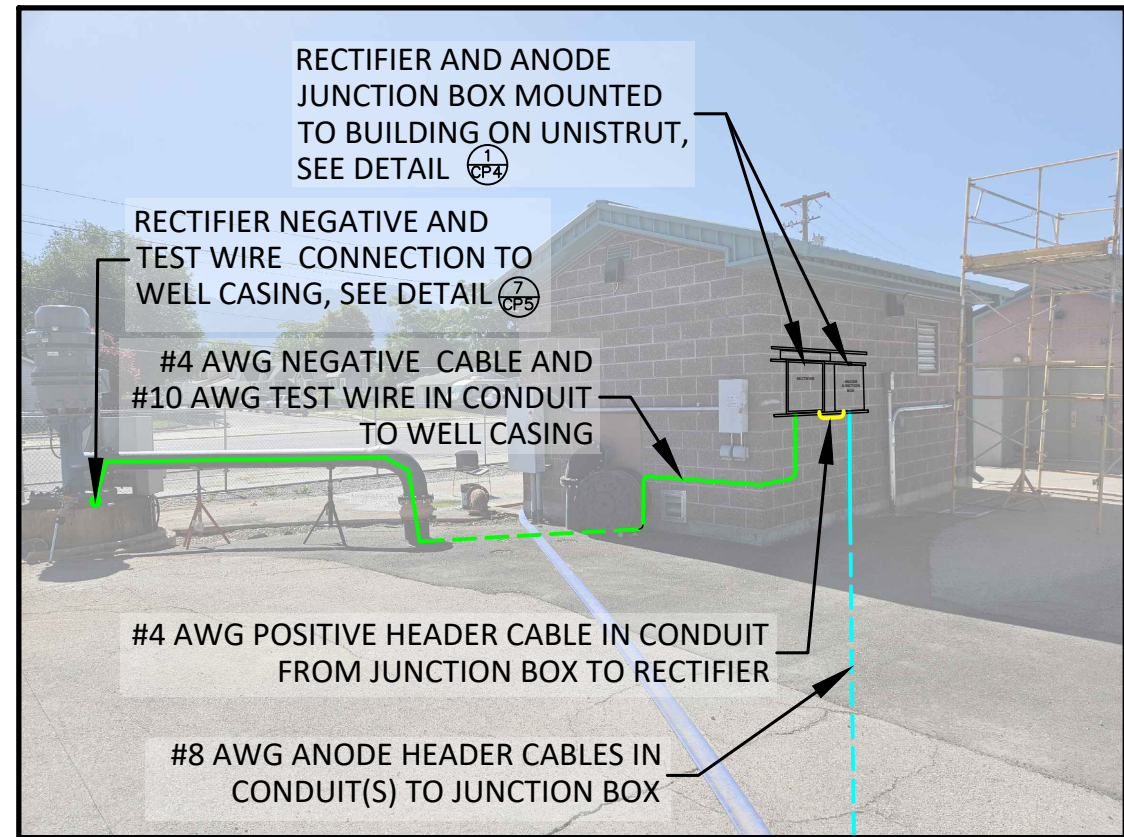
CITY OF SOUTH SALT LAKE
700 EAST WELL

CATHODIC PROTECTION SYSTEM
DESIGN PROJECT

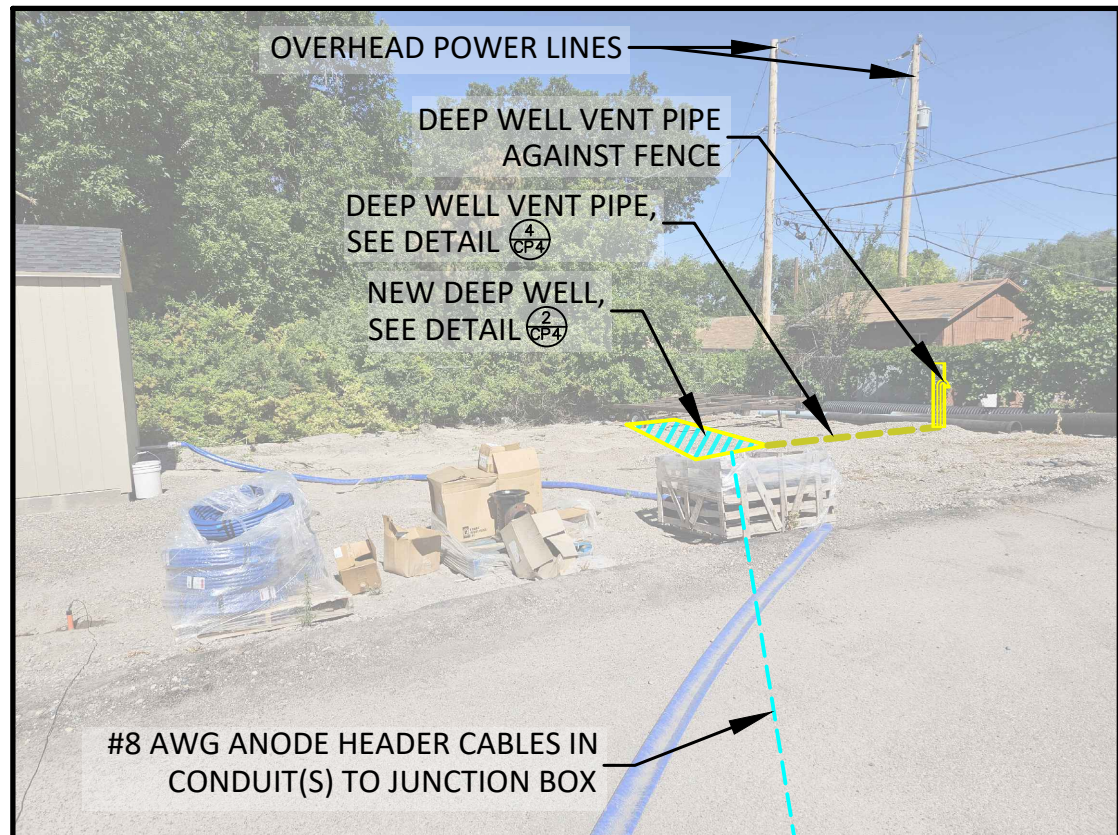
SHEET	2 OF 5
DWG	CP2
DATE	2024-08-19
CONTRACT	HAL-012



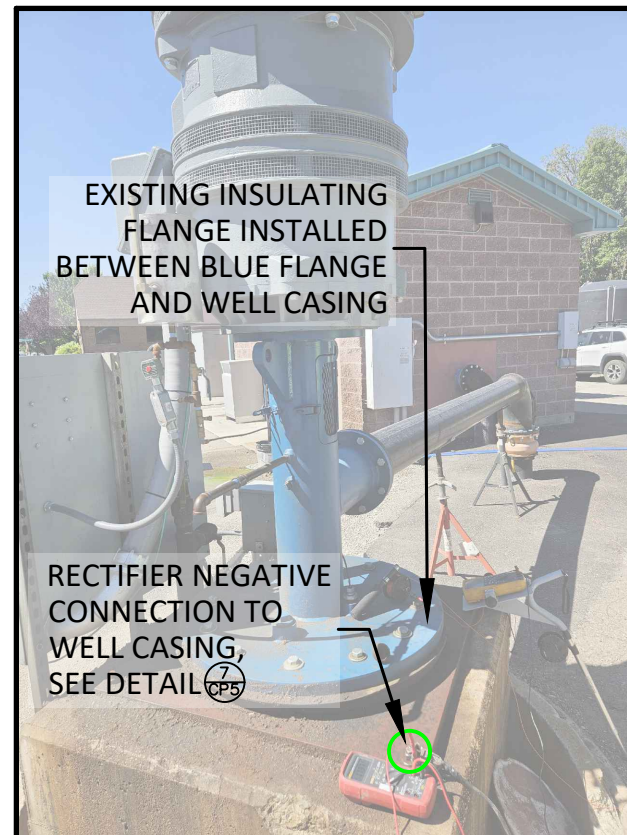
1 VIEW FACING SOUTH TOWARD RECTIFIER LOCATION AND RECTIFIER NEGATIVE CONNECTION



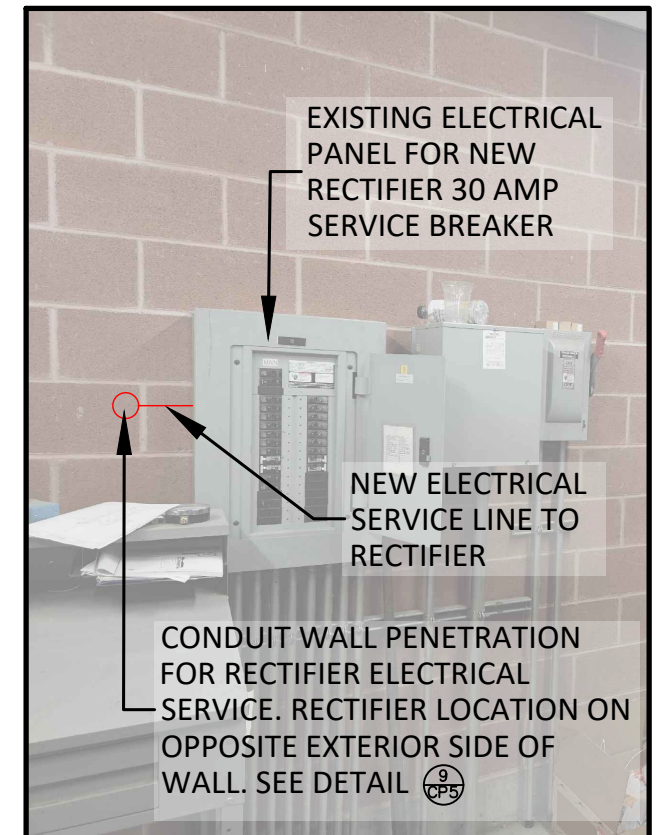
2 VIEW FACING SOUTH WEST TOWARD RECTIFIER LOCATION AND RECTIFIER NEGATIVE CONNECTION



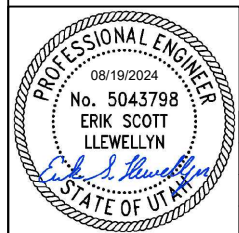
3 VIEW FACING NORTH EAST ALONG #8 AWG ANODE HEADER CABLES TOWARD NEW DEEP WELL AND VENT PIPE LOCATION



4 VIEW FACING SOUTH WEST OF RECTIFIER NEGATIVE CONNECTION TO WELL CASING



5 VIEW INSIDE WELL BUILDING OF ELECTRICAL PANEL FOR NEW RECTIFIER BREAKER



DSGN	ESL						
DR	ZGS						
CHK	ESL						
APVD	ESL	NO.	DATE	ISSUE/REVISION	BY	APVD	

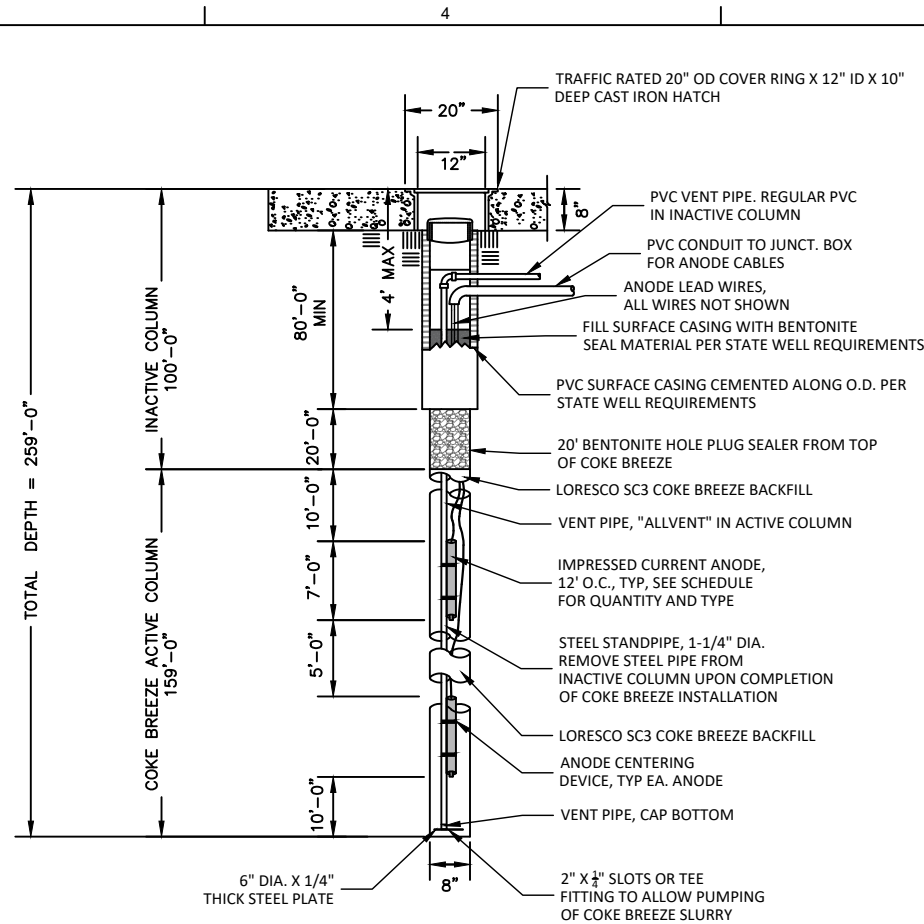
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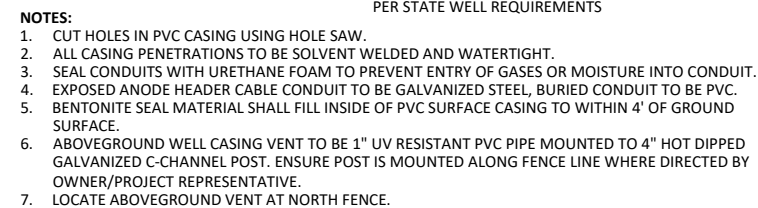
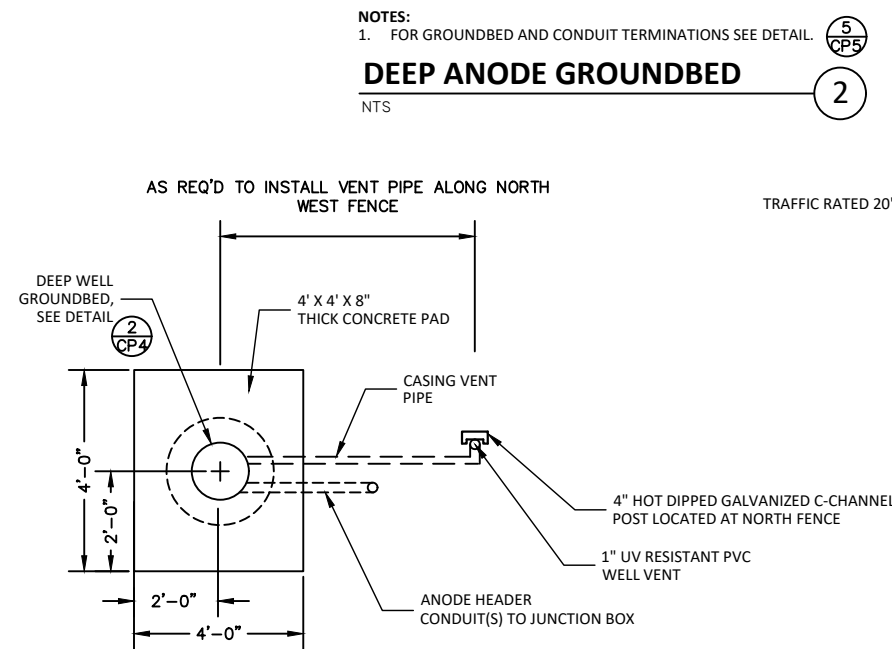
CITY OF SOUTH SALT LAKE
700 EAST WELL

CATHODIC PROTECTION SYSTEM
DESIGN PROJECT

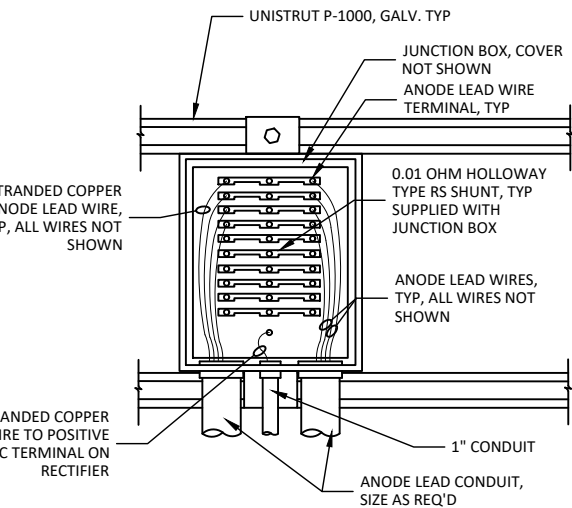
SHEET	3 OF 5
DWG	CP3
DATE	2024-08-19
CONTRACT	HAL-012



*ANODE WELL SHALL BE CONSTRUCTED TO THE MINIMUM DIMENSIONS SHOWN IN THE SCHEDULE. IF SUBSURFACE SOIL CONDITIONS ARE SUITABLE FOR CATHODIC PROTECTION WELL AT MINIMUM SPECIFIED DEPTH, SSLC PERSONNEL OR THEIR REPRESENTATIVE MAY DIRECT CONTRACTOR TO DRILL UNTIL THE LESSER OF THE MAXIMUM SPECIFIED WELL DEPTH OR DEPTH OF UNSUITABLE SOIL CONDITIONS.

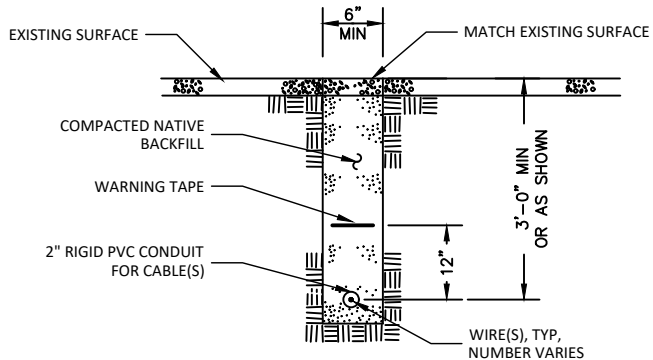


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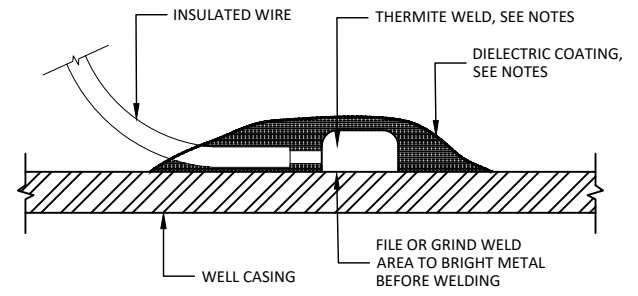
- NOTES:**
1. MOUNT ANODE JUNCTION BOX ADJACENT TO RECTIFIER ON GALVANIZED UNISTRUT P-1000.
 2. SIZE ANODE LEAD CONDUIT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. PROVIDE ONE CONDUIT WITH UP TO 15 ANODES, TWO WITH 16 TO 32 ANODES.

ANODE JUNCTION BOX
NTS



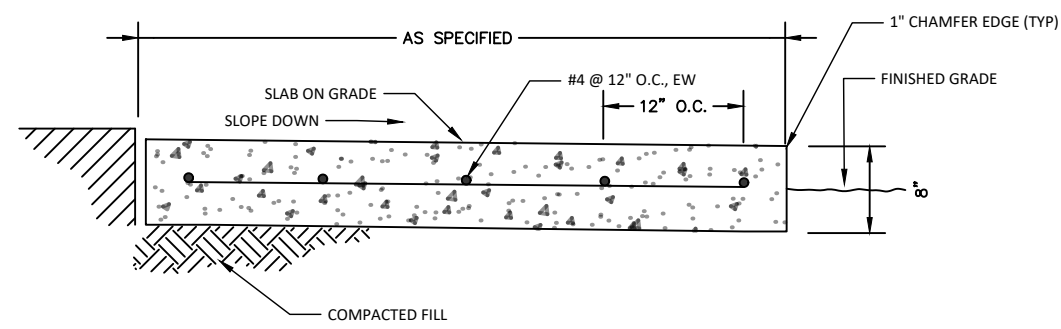
- NOTES:**
1. SIZE CONDUIT AS REQUIRED TO ACCOMMODATE THE CONDUCTOR(S), MINIMUM CONDUIT DIAMETER 2".
 2. DETAIL APPLIES TO ALL NEW CABLE/WIRE INSTALLATIONS AND ANODE HEADER CABLE INSTALLATIONS.

TYPICAL TRENCH DETAIL
NTS



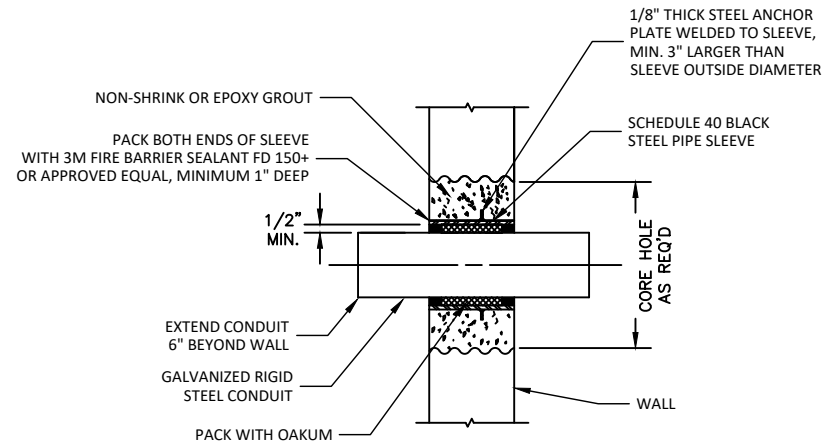
- NOTES:**
1. MAINTAIN SEPARATION BETWEEN MULTIPLE TEST WIRE CONNECTIONS OF ONE PIPE DIA OR 24", WHICHEVER IS LESS.
 2. COPPER SLEEVE REQUIRED FOR #2 AWG JOINT BONDS OR FOR #12 AWG OR SMALLER TEST WIRES.
 3. WELDER AND CARTRIDGE SIZE VARIES ACCORDING TO PIPE SIZE AND PIPE MATERIAL, CONSULT WELDER MANUFACTURER FOR RECOMMENDED WELDER AND CARTRIDGE
 4. COAT COMPLETED CONNECTIONS AS SHOWN AND SPECIFIED.
 5. WELL CASING COATING NOT SHOWN FOR CLARITY.

STEEL AND DUCTILE IRON WIRE CONNECTION
NTS



- NOTES:**
1. SLOPE FINISH GRADE TO DRAIN AWAY FROM SLAB.

REINFORCED CONCRETE SLAB
NTS



CONDUIT PENETRATION DETAIL
NTS