

# PROJECT MANUAL

**CITY OF CRAIG**  
**BREEZE PARK RESTROOM**

**SEPTEMBER 2016**

PREPARED BY:

**SGM**

**118 W. 6<sup>TH</sup> STREET, SUITE 200**  
**GLENWOOD SPRINGS, CO 81601**



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## **BID DOCUMENTS**



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**NOTICE  
ADVERTISEMENT FOR BID**

Sealed BIDS for construction of the **City of Craig-Breeze Park Restroom** will be received by the City of Craig City Clerk at 300 W 4<sup>th</sup> St., Craig, CO 81625, until 2:00 p.m. October 3<sup>rd</sup>, 2016, at which time they will be publicly opened and read aloud.

The project consists of construction of a new restroom facility located in Breeze Park in Craig, CO. This project consists of the concrete foundation, CMU walls, roof, CONCRETE Surrounding SIDEWALK, and electrical work.

Bid bonds in the amount of 5% and Performance and Payment Bonds in the amount of 100% of the Total Contract Price are required.

Electronic copies of the Contract Documents will be available on **Friday, September 16<sup>th</sup>, 2016**, from **the City of Craig**, through Alicia Baker or David Pike free of charge for vendors and subcontractors. All questions pertaining to the project shall be directed to David Pike by email or phone at [dpike@ci.craig.co.us](mailto:dpike@ci.craig.co.us) (970) 826-2006 or Alicia Baker [abaker@ci.craig.co.us](mailto:abaker@ci.craig.co.us) (970) 826-2029.

City of Craig  
Dave Pike  
Recreation Director

## SECTION 00100

### INSTRUCTIONS TO BIDDERS

#### 1. **Defined Terms.**

Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract, prepared by Engineers Joint Contract Documents Committee, 2007 edition have the meanings assigned to them in the General Conditions. The term "Successful Bidder" means the lowest, qualified, responsible Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

#### 2. **Copies of Bidding Documents.**

- 2.1. Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement or Invitation may be obtained from Engineer (unless another issuing office is designated in the Advertisement or Invitation to Bid).
- 2.2. Complete sets of Bidding Documents shall be used in preparing Bids: Neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3. Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

#### 3. **Qualifications of Bidders.**

To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit within five days of Owner's request written evidence of the types set forth in the Supplementary Conditions, such as financial data, previous experience and evidence of authority to conduct business in the jurisdiction where the Project is located. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract.

#### 4. **Examination of Contract Documents and Site.**

- 4.1. Before submitting a Bid, each Bidder must (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the Work, (c) familiarize himself with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; and (d) study and carefully correlate Bidder's observations with the Contract Documents.
- 4.2. Reference is made to the Supplementary Conditions for the identification of those reports or investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which have been relied upon by Engineer in preparing the Drawings and Specifications. Owner will make copies of such reports available to any Bidder requesting them. These reports are not

guaranteed as to accuracy or completeness, nor are they part of the Contract Documents. Before submitting his Bid each Bidder will, at his own expense, make such additional investigations and tests as the Bidder may deem necessary to determine his Bid for performance of the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

- 4.3. On request Owner will provide each Bidder access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of his Bid.
- 4.4. The lands upon which the Work is to be performed, rights-of-way for access thereto and other lands designated for use by Contractor in performing the Work are identified in the Supplementary, Conditions, General Requirements or Drawings.
- 4.5. The submission of a Bid will constitute an incontrovertible representation by the Bidder that he has complied with every requirement of this Article 4 and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

**5. Interpretations.**

All questions about the meaning or intent of the Contract Documents shall be submitted to Engineer in writing. Replies will be issued by

Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

**6. Bid Security.**

Bid Security is required for this project.

**7. Contract Time.**

The number of days within which, or the date by which, the Work is to be completed (the Contract Time) is set forth in the Supplementary General Conditions.

**8. Liquidated Damages.**

Provisions for liquidated damages, if any, are set forth in the Supplemental General Conditions and Contract documents.

**9. Subcontractors, etc.**

- 9.1. If included with this bid package, the Bidder shall complete and submit with his bid the Subcontractor List identifying all requested specialty subcontractors and all subcontract values over the stated amount. Further, within seven days of request by the Owner, the Successful Bidder and any other Bidder so requested shall submit experience statements for all subcontractors with pertinent information of similar projects and other evidence of qualification for each such Subcontractor, person and organization if requested by Owner. If Owner or Engineer after due investigation has reasonable

objection to any proposed Subcontractor, other person or organization, either may before giving the Notice of Award request the apparent Successful Bidder to submit an acceptable substitute without an increase in Bid price. If the apparent Successful Bidder declines to make any such substitution, the contract shall not be awarded to such Bidder, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any Subcontractor, other person or organization so listed and to whom Owner or Engineer does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer.

- 9.2. In contracts where the Contract Price is on the basis of Cost-of-the-Work, Plus a Fee, the apparent Successful Bidder prior to the Notice of Award shall identify in writing to Owner those portions of the Work that such Bidder proposes to subcontract and after the Notice of Award may only subcontract other portions of the Work with Owner's written consent.
- 9.3. No Contractor shall be required to employ any Subcontractor, other person or organization against whom he has reasonable objection.

## **10. Bid Form.**

- 10.1. The Bid Form is attached hereto; additional copies may be obtained from Engineer.
- 10.2. Bid Forms must be completed in ink or by typewriter. The Bid price of each item on the form must be stated in words and numerals; in case of a conflict, words will take precedence.
- 10.3. Bids by corporations must be executed in (he corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.
- 10.4. Bids by partnerships must be executed in the partnership name and signed by a partner whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 10.5. All names must be typed or printed below the signature.
- 10.6. The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).
- 10.7. The address to which communications regarding the Bid are to be directed must be shown.

## **11. Submission of Bids.**

- 11.1. Bids shall be submitted at the time and place indicated in the invitation to Bid and shall be included in an opaque sealed envelope, marked with the Project title and name and address of the Bidder and accompanied by the Bid Security and other required documents. If the Bid is sent through the mail or other delivery system the sealed

envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face thereof.

The following forms must be submitted with Bid:  
00300 Bid Form w/ Addenda Acknowledgement  
00430 Subcontractor List

**12. Modification and Withdrawal of Bids.**

- 12.1. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.
- 12.2. If, within twenty-four hours after Bids are opened, any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of his Bid, that Bidder may withdraw his Bid and the Bid Security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work.

**13. Opening of Bids.**

- 13.1. Bids will be opened publicly.
- 13.2. When Bids are opened publicly they will be read aloud, and an abstract of the amounts of the base Bids and major alternates (if any) will be made available after the opening of Bids.
- 13.3. When Bids are opened privately, an abstract of the same information will be made available to Bidders within seven days after the date of Bid opening.

**14. Bids to Remain Open.**

All Bids shall remain open for 60 days after the day of the Bid opening, but Owner may, in his sole discretion, release any Bid and return the Bid Security prior to that date.

**15. Award of Contract.**

- 15.1. Owner reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, nonresponsive or conditional Bids. Discrepancies between words and figures will be resolved in favor of words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
- 15.2. In evaluating Bids, Owner shall consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements and alternates and unit prices if requested in the Bid forms. It is Owner's intent to accept alternates (if any are accepted) in the order in which they are listed in the Bid form but Owner may accept them in any order or combination.

- 15.3. Additional items to be considered in evaluation of bids include, using local subcontractors and labor force and proposed contractor personnel.
- 15.4. Owner may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the Work as to which the identity of Subcontractors and other persons and organizations must be submitted as provided in the Supplementary Conditions. Operating costs, maintenance considerations, performance data and guarantees of materials and equipment may also be considered by Owner.
- 15.5. Owner may conduct such investigations as he deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of the Bidders, proposed Subcontractors and other persons and organizations to do the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.
- 15.6. Owner reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to Owner's satisfaction.
- 15.7. If the contract is to be awarded it will be awarded to the lowest Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project.
- 15.8. If the contract is to be awarded, the Owner will give the Successful Bidder a Notice of Award within the period specified in Section 15.

**16. Performance and Other Bonds.**

Paragraph 5.1 of the General Conditions and the Supplementary Conditions set forth Owner's requirements as to performance and other Bonds. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by the required Contract Security.

**17. Signing of Agreement.**

When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by at least three unsigned counterparts of the Agreement and all other Contract Documents. Within fifteen days thereafter Contractor shall, sign and deliver at least three counterparts of the Agreement to Owner with all other Contract Documents attached. Within ten days thereafter Owner will deliver all fully signed counterparts to Contractor. Engineer will identify those portions of the Contract Documents not fully signed by Owner and Contractor and such identification shall be binding on all parties.

**18. Permits and Fees**

The City of Craig will take care of all permits and fees required for project.

**END OF SECTION**

**SECTION 00300**

**BID FORM**

Proposal of \_\_\_\_\_ (hereinafter called "BIDDER"), organized and existing under the laws of the State of Colorado, doing business as \_\_\_\_\_, to **City of Craig, Colorado** (hereinafter called "OWNER")

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the construction of Breeze Park Restrooms in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of the BID, each BIDDER certifies, and in the case of a joint BID, each party has been arrived at independently, without consultation, communication, or agreement as to any matter relating to the BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to substantially complete WORK under this contract on or before January 1, 2015. BIDDER further agrees to pay as liquidated damages, the sum of **FIVE Hundred** (\$500.00) for each consecutive calendar day thereafter as provided in the Supplementary General Conditions.

Bidder acknowledges receipt of the following ADDENDA:

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\* Insert "a corporation", "a partnership", or "an individual", as applicable.

Total Bid:

\_\_\_\_\_

(Written)

\_\_\_\_\_

(Numbers)

Respectfully submitted:

\_\_\_\_\_

Signature

\_\_\_\_\_

Address

\_\_\_\_\_

Title

\_\_\_\_\_

Firm Name

\_\_\_\_\_

Telephone

**(SEAL, if Bid is by a corporation)**

ATTEST:

\_\_\_\_\_

Name

**END OF SECTION**

**SECTION 00310**

**BID SCHEDULE**

<b>Item No.</b>	<b>Est. Qty</b>	<b>Unit</b>	<b>Description and unit price in words</b>	<b>Unit Price</b>	<b>Total Price</b>
-----------------	-----------------	-------------	--	-------------------	--------------------

1	1	LS	Breeze Park Restroom		
---	---	----	----------------------	--	--

\_\_\_\_\_

Lump Sum Price

**TOTAL BASE BID:** \_\_\_\_\_

(numeric)

Submitted by: \_\_\_\_\_ Company

Submitted by: \_\_\_\_\_ Authorized Personnel

\_\_\_\_\_

Title of Authorized Personnel

Date of bid: \_\_\_\_\_

**END OF SECTION**



**SECTION 00430**

**BID BOND**

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

BIDDER (*Name and Address*):

SURETY (*Name and Address of Principal Place of Business*):

OWNER (*Name and Address*):

**BID**

Bid Due Date:

Description (*Project Name and Include Location*):

**BOND**

Bond Number:

Date (*Not earlier than Bid due date*):

Penal sum \_\_\_\_\_ \$ \_\_\_\_\_  
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

**BIDDER**

**SURETY**

\_\_\_\_\_  
Bidder's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature (Attach Power of Attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.*

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

**SECTION 00510**  
**NOTICE OF AWARD**

Date: \_\_\_\_\_

Project: \_\_\_\_\_

Owner: \_\_\_\_\_ Owner's Contract No.: \_\_\_\_\_

Contract: \_\_\_\_\_ Engineer's Project No.: \_\_\_\_\_

Bidder: \_\_\_\_\_

Bidder's Address: *[send Notice of Award Certified Mail, Return Receipt Requested]*

\_\_\_\_\_

\_\_\_\_\_

You are notified that your Bid dated \_\_\_\_\_ for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for \_\_\_\_\_

*[Indicate total Work, alternates, or sections of Work awarded.]*

The Contract Price of your Contract is \_\_\_\_\_ Dollars (\$\_\_\_\_\_).

*[Insert appropriate data if unit prices are used. Change language for cost-plus contracts.]*

\_\_\_\_\_ copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

\_\_\_\_\_ sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within [15] days of the date you receive this Notice of Award.

1. Deliver to the Owner four (4) executed counterparts of the Contract Documents.
2. Deliver with the executed Contract Documents the Contract security [Bonds] as specified in the Instructions to Bidders (Article 20), General Conditions (Paragraph 5.01), and Supplementary Conditions (Paragraph SC-5.01).
3. Other conditions precedent:  
\_\_\_\_\_

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

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract Documents.

\_\_\_\_\_  
Owner  
By: \_\_\_\_\_  
Authorized Signature  
\_\_\_\_\_  
Title

Copy to Engineer

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

# **SUGGESTED FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
*A Practice Division of the*  
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

This Suggested Form of Agreement has been prepared for use with the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the other. The language contained in the Suggested Instructions to Bidders (EJCDC C-200, 2007 Edition) is also carefully interrelated with the language of this Agreement. Their usage is discussed in the Narrative Guide to the 2007 EJCDC Construction Documents (EJCDC C-001, 2007 Edition).

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## INTRODUCTION

This Suggested Form of Agreement between Owner and Contractor for Construction Contract (Stipulated Price) (“Agreement”) has been prepared for use with the Suggested Instructions to Bidders for Construction Contracts (“Instructions to Bidders”) (EJCDC C-200, 2007 Edition); the Suggested Bid Form for Construction Contracts (“Bid Form”) (EJCDC C-410, 2007 Edition); and the Standard General Conditions of the Construction Contract (“General Conditions”) (EJCDC C-700, 2007 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the others. See also the Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition), and the Narrative Guide to the 2007 EJCDC Construction Documents (EJCDC C-001, 2007 Edition).

This Agreement form assumes use of a Project Manual that contains the following documentary information for a construction project:

- Contract Documents, which include the Agreement, performance and payment bonds, the General Conditions, the Supplementary Conditions, the Drawings, and the Specifications.

Suggested provisions are accompanied by “Notes to User” to assist in preparing the Agreement. The provisions have been coordinated with the other forms produced by EJCDC. Much of the language should be usable on most projects, but modifications and additional provisions will often be necessary. When modifying the suggested language or writing additional provisions, the user must check the other documents thoroughly for conflicts and coordination of terms and make appropriate revisions in all affected documents.

All parties involved in construction projects benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location: doing so frequently leads to confusion and unanticipated legal consequences. When preparing documents for a construction project, careful attention should be given to the guidance provided in the Uniform Location of Subject Matter (EJCDC N-122).

EJCDC has designated Section 00520 for this Agreement. If this convention is used, the first page of the Agreement would be numbered 00520-1. If CSI’s MasterFormat 04™ is being used for the Project Manual, consult MasterFormat 04 for the appropriate section number and number the pages accordingly.

For brevity, paragraphs of the Instructions to Bidders are referenced with the prefix “I,” those of the Bid Form are referenced with the prefix “BF,” and those of this Agreement are referenced with the prefix “A.”

**NOTE:** EJCDC publications may be purchased from any of the organizations listed on the page immediately following the cover page of this document.

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

THIS AGREEMENT is by and between \_\_\_\_\_ City of Craig \_\_\_\_\_ (“Owner”) and  
\_\_\_\_\_  
\_\_\_\_\_ (“Contractor”).

Owner and Contractor hereby agree as follows:

**ARTICLE 1 – WORK**

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

\_\_\_\_\_ Breeze Park Restroom \_\_\_\_\_

**ARTICLE 2 – THE PROJECT**

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

As described above.

**ARTICLE 3 – ENGINEER**

3.01 The Project has been designed by SGM (Engineer), which is to act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

**ARTICLE 4 – CONTRACT TIMES**

4.01 *Time of the Essence*

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

4.02 *Days to Achieve Substantial Completion and Final Payment*

A. The Contract Times shall commence to run as provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions. The Contract Times are as follows:

1. \_\_\_\_\_ Substantial Completion Date of Negotiable \_\_\_\_\_

#### 4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$500 for each day that expires after the time for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$500 for each day that expires after the time specified in Paragraph 4.02 above for completion and readiness for final payment until the Work is completed and ready for final payment.

### **ARTICLE 5 – CONTRACT PRICE**

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraph 5.01.A below:

- A. For all Work other than Unit Price Work, a lump sum of: \$ \_\_\_\_\_

All specific cash allowances are included in the above price in accordance with Paragraph 11.02 of the General Conditions.

### **ARTICLE 6 – PAYMENT PROCEDURES**

#### 6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

#### 6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the \_\_\_\_ day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including

but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions.

- a. 90 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
  - b. 90 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 200 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

#### 6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.

### **ARTICLE 7 – INTEREST**

- 7.01 All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the rate of 1 percent per annum.

### **ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS**

- 8.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
  - B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  - C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
  - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 of the Supplementary Conditions as containing

reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 of the Supplementary Conditions as containing reliable "technical data."

- E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

## **ARTICLE 9 – CONTRACT DOCUMENTS**

### *9.01 Contents*

- A. The Contract Documents consist of the following:
  - 1. This Agreement (pages 1 to \_\_, inclusive).
  - 2. Performance bond (pages \_\_\_\_ to \_\_\_\_, inclusive).
  - 3. Payment bond (pages \_\_\_\_ to \_\_\_\_, inclusive).
  - 4. Other bonds (pages \_\_\_\_ to \_\_\_\_, inclusive).
    - a. \_\_\_\_ (pages \_\_\_\_ to \_\_\_\_, inclusive).
    - b. \_\_\_\_ (pages \_\_\_\_ to \_\_\_\_, inclusive).
    - c. \_\_\_\_ (pages \_\_\_\_ to \_\_\_\_, inclusive).

5. General Conditions (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive).
6. Supplementary Conditions (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive).
7. Specifications as listed in the table of contents of the Project Manual.
8. Drawings consisting of \_\_\_\_\_ sheets with each sheet bearing the following general title: \_\_\_\_\_ [or] the Drawings listed on attached sheet index.
9. Addenda (numbers \_\_\_\_\_ to \_\_\_\_\_, inclusive).
10. Exhibits to this Agreement (enumerated as follows):
  - a. Contractor's Bid (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive).
  - b. Documentation submitted by Contractor prior to Notice of Award (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive).
  - c. *[List other required attachments (if any), such as documents required by funding or lending agencies].*
11. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
  - a. Notice to Proceed (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive).
  - b. Work Change Directives.
  - c. Change Orders.

**NOTE TO USER**

*If any of the items listed are not to be included as Contract Documents, remove such item from the list and renumber the remaining items.*

- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

## **ARTICLE 10 – MISCELLANEOUS**

### 10.01 *Terms*

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

#### 10.02 *Assignment of Contract*

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

#### 10.03 *Successors and Assigns*

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

#### 10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall 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.

#### 10.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
  - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

*NOTE TO USER*

*See I-21 and correlate procedures for format and signing of the documents.*

This Agreement will be effective on \_\_\_\_\_ (which is the Effective Date of the Agreement).

*NOTE TO USER*

*The Effective Date of the Agreement and the dates of any Construction Performance Bond (EJCDC C-610) and Construction Payment Bond (EJCDC C-615) should be the same, if possible. In no case may the date of any bonds be earlier than the Effective Date of the Agreement.*

OWNER:

CONTRACTOR

City of Craig \_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

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

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

License No.: \_\_\_\_\_  
(Where applicable)

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

*NOTE TO USER: Use in those states or other jurisdictions where applicable or required.*

Agent for service of process:  
\_\_\_\_\_

**SECTION 00550  
NOTICE TO PROCEED**

Date: \_\_\_\_\_

Project: \_\_\_\_\_

Owner: \_\_\_\_\_

Owner's Contract No.: \_\_\_\_\_

Contract: \_\_\_\_\_

Engineer's Project No.: \_\_\_\_\_

Contractor: \_\_\_\_\_

Contractor's Address: *[send Certified Mail, Return Receipt Requested]*  
\_\_\_\_\_  
\_\_\_\_\_

You are notified that the Contract Times under the above Contract will commence to run on \_\_\_\_\_. On or before that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 4 of the Agreement, the number of days to achieve Substantial Completion is \_\_\_\_\_, and the number of days to achieve readiness for final payment is \_\_\_\_\_.

Before you may start any Work at the Site, Paragraph 2.01.B of the General Conditions provides that you and Owner must each deliver to the other (with copies to Engineer and other identified additional insureds and loss payees) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

\_\_\_\_\_

Owner

Given by:

\_\_\_\_\_

Authorized Signature

\_\_\_\_\_

Title

\_\_\_\_\_

Date

Copy to Engineer

**SECTION 00610**  
**PERFORMANCE BOND**

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

---

CONTRACTOR (*Name and Address*):                      SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

**CONTRACT**

Effective Date of Agreement:  
Amount:  
Description (*Name and Location*):

**BOND**

Bond Number:  
Date (*Not earlier than Effective Date of Agreement*):  
Amount:  
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

**CONTRACTOR AS PRINCIPAL**

**SURETY**

\_\_\_\_\_  
Contractor's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature (Attach Power of Attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Note: Provide execution by additional parties, such as joint venturers, if necessary.*

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

1. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 2.1.
2. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
  - 2.1 Owner has notified Contractor and Surety, at the addresses described in Paragraph 9 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor, and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
  - 2.2 Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 2.1; and
  - 2.3 Owner has agreed to pay the Balance of the Contract Price to:
    1. Surety in accordance with the terms of the Contract; or
    2. Another contractor selected pursuant to Paragraph 3.3 to perform the Contract.
3. When Owner has satisfied the conditions of Paragraph 2, Surety shall promptly, and at Surety's expense, take one of the following actions:
  - 3.1 Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
  - 3.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
  - 3.3 Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 5 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
  - 3.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
    1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
    2. Deny liability in whole or in part and notify Owner citing reasons therefor.
4. If Surety does not proceed as provided in Paragraph 3 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 3.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
5. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 3.1, 3.2, or 3.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To the limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the

Contract, Surety is obligated without duplication for:

- 5.1 The responsibilities of Contractor for correction of defective Work and completion of the Contract;
  - 5.2 Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions of or failure to act of Surety under Paragraph 3; and
  - 5.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.
6. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.
7. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.
8. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located, and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
9. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.
10. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
11. Definitions.
- 11.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
  - 11.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
  - 11.3 Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
  - 11.4 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or otherwise comply with the other terms thereof.

FOR INFORMATION ONLY – (*Name, Address and Telephone*)

Surety Agency or Broker:

Owner's Representative (*Engineer or other party*):

**END OF SECTION**

**SECTION 00615  
PAYMENT BOND**

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

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CONTRACTOR (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

**CONTRACT**

Effective Date of Agreement:

Amount:

Description (*Name and Location*):

**BOND**

Bond Number:

Date (*Not earlier than Effective Date of Agreement*):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

**CONTRACTOR AS PRINCIPAL**

**SURETY**

\_\_\_\_\_  
Contractor's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature (Attach Power of Attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Note: Provide execution by additional parties, such as joint venturers, if necessary.*

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to Owner, this obligation shall be null and void if Contractor:
  - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
  - 2.2 Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
4. Surety shall have no obligation to Claimants under this Bond until:
  - 4.1 Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
  - 4.2 Claimants who do not have a direct contract with Contractor:
    1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to 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 or equipment were furnished or supplied, or for whom the labor was done or performed; and
    2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
    3. Not having been paid within the above 30 days, have sent a written notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at Surety's expense take the following actions:
  - 6.1 Send an answer to that Claimant, with a copy to 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.
  - 6.2 Pay or arrange for payment of any undisputed amounts.
7. Surety's total obligation 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 Surety.
8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.

9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any 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.

10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. Definitions

15.1 Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms “labor, materials or equipment” that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor’s subcontractors, and all other items for which a mechanic’s lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

15.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract, or to perform and complete or otherwise comply with the other terms thereof.

FOR INFORMATION ONLY – *(Name, Address, and Telephone)*

Surety Agency or Broker:

Owner’s Representative *(Engineer or other)*:

**SECTION 00625**  
**CERTIFICATE OF SUBSTANTIAL COMPLETION**

Project: Breeze Park Restroom	
Owner: City of Craig, CO	Owner's Contract No.:
Contract:	Engineer's Project No.:
	2013-520.007

**This [tentative] [definitive] Certificate of Substantial Completion applies to:**

- All Work under the Contract Documents:       The following specified portions of the Work:

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\_\_\_\_\_  
Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

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

**The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:**

- Amended Responsibilities                       Not Amended

Owner's Amended Responsibilities:

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Contractor's Amended Responsibilities:

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

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

---

Executed by Engineer \_\_\_\_\_ Date \_\_\_\_\_

---

Accepted by Contractor \_\_\_\_\_ Date \_\_\_\_\_

---

Accepted by Owner \_\_\_\_\_ Date \_\_\_\_\_

**SECTION 00691**

**CONTRACTOR'S AFFIDAVIT OF RELEASE OF LIENS**

Project: Breeze Park Restroom  
\_\_\_\_\_  
\_\_\_\_\_

To Owner: City of Craig, CO  
\_\_\_\_\_  
\_\_\_\_\_

Agreement Date: \_\_\_\_\_

State of Colorado County of Moffatt

The undersigned hereby certifies that to the best of the undersigned's knowledge, information and belief, except as listed below, the Releases of Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances of the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

Exceptions:

Supporting Documents Attached Hereto:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment
2. Separate Release or Waiver of Liens for Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by the list thereof.

Contractor: (Name and address)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

By:

\_\_\_\_\_  
(Signature of authorized representative)

\_\_\_\_\_  
(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:

My Commission Expires:

**SECTION 00692**

**CONSENT OF SURETY TO FINAL PAYMENT**

Project: Breeze Park Restroom  
\_\_\_\_\_  
\_\_\_\_\_

To Owner: City of Craig, CO  
\_\_\_\_\_  
\_\_\_\_\_

Agreement Date: \_\_\_\_\_

\_\_\_\_\_  
In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the

(Insert name and address of Surety)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_, SURETY,

on bond of

(Insert name and address of Contractor)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_, CONTRACTOR,

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety of any of its obligations to

(Insert name and address of Owner)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_, OWNER,

as set forth in said Surety's bond.

IN WITNESS WHEREOF, the Surety has hereunto set it hand on this date:

(Insert in writing the month followed by the numeric date and year)

---

(Surety)

---

(Signature of authorized representative)

---

(Printed name and title)

Attest:  
(Seal):

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

# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly by



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Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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**STANDARD GENERAL CONDITIONS OF THE  
CONSTRUCTION CONTRACT**

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## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. 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 which is evidence of the agreement between Owner and Contractor covering the Work.
  3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
  5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
  7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
  8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
  9. *Change Order*—A document recommended by Engineer 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, issued on or after the Effective Date of the Agreement.
  10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
  11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given 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 under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *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.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *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 for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *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, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

## 1.02 *Terminology*

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents; or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.

F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## **ARTICLE 2 – PRELIMINARY MATTERS**

### 2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

### 2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

### 2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement 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 Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

## 2.04 *Starting the Work*

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

## 2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), 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 Documents;
  - 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.

## 2.06 *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 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, 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 instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

## 2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
  - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of

the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

### **ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE**

#### **3.01 *Intent***

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

#### **3.02 *Reference Standards***

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

#### **3.03 *Reporting and Resolving Discrepancies***

- A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, 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) any standard, specification, manual, or code, or (c) 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 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
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 Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
  - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); 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 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
  1. A Field Order;
  2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

### 3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
  1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
  2. 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.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

### 3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

## **ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS**

### 4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the

Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- 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 the Work is to be performed 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.

#### 4.02 *Subsurface and Physical Conditions*

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

- 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

#### 4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

- 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
- 2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition 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 meet any one or more of the categories described in Paragraph 4.03.A; and
  - 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 Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
  - a. Contractor knew of the existence of such conditions at the time Contractor made a final 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
  - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
  - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other

professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

#### 4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
  - a. reviewing and checking all such information and data;
  - b. locating all Underground Facilities shown or indicated in the Contract Documents;
  - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
  - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, 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 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price

or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 4.05 *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.

#### 4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
  2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by

Paragraph 6.16.A); and (iii) 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 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. 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. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. 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 a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

## **ARTICLE 5 – BONDS AND INSURANCE**

### *5.01 Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

### *5.02 Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

### *5.03 Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

#### 5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
  - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
  - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
  - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
  - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
    - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
    - b. by any other person for any other reason;
  - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
  - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
  - a. Such insurance shall remain in effect for two years after final payment.
  - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

#### 5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

#### 5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
  2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
  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;
  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 loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property

insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

#### 5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
  - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
  - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery

against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

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

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, 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. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

## ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

### 6.01 *Supervision and Superintendence*

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

### 6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

### 6.03 *Services, Materials, and Equipment*

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

#### 6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 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 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
  2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

#### 6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
    - a. in the exercise of reasonable judgment Engineer determines that:
      - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
      - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
      - 3) it has a proven record of performance and availability of responsive service.
    - b. Contractor certifies that, if approved and incorporated into the Work:
      - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
      - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

## 2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
  - 1) shall certify that the proposed substitute item will:
    - a) perform adequately the functions and achieve the results called for by the general design,
    - b) be similar in substance to that specified, and
    - c) be suited to the same use as that specified;
  - 2) will state:
    - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
    - b) 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
    - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
  - 3) will identify:
    - a) all variations of the proposed substitute item from that specified, and
    - b) available engineering, sales, maintenance, repair, and replacement services; and

- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. 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.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

#### 6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or

other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
  2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

## 6.07 *Patent Fees and Royalties*

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

## 6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

## 6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all

court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 6.10 *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.

#### 6.11 *Use of Site and Other Areas*

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

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. 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 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 by or based upon Contractor's performance of the Work.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *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 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 Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

#### 6.12 *Record Documents*

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

#### 6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
  - 1. all persons on the Site or who may be affected by the Work;
  - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

#### 6.14 *Safety Representative*

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

#### 6.15 *Hazard Communication Programs*

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

#### 6.16 *Emergencies*

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

#### 6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*
    - a. Submit number of copies specified in the General Requirements.
    - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.
  2. *Samples:*
    - a. Submit number of Samples specified in the Specifications.
    - b. 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 6.17.D.
- B. 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. *Submittal Procedures:*
1. Before submitting each Shop Drawing or Sample, Contractor shall have:
    - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
    - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
    - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
    - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
  2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
  3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop

Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.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's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
1. observations by 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 or the issuance of a notice of acceptability by Engineer;
  6. any inspection, test, or approval by others; or
  7. any correction of defective Work by Owner.

#### 6.20 *Indemnification*

- A. 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 performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor,

Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
  - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
  - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

#### 6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

## ARTICLE 7 – OTHER WORK AT THE SITE

### 7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
1. written notice thereof will be given to Contractor prior to starting any such other work; and
  2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to 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.

### 7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
  2. the specific matters to be covered by such authority and responsibility will be itemized; and
  3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

### 7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

## **ARTICLE 8 – OWNER'S RESPONSIBILITIES**

### 8.01 *Communications to Contractor*

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

### 8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

### 8.03 *Furnish Data*

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

### 8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

### 8.05 *Lands and Easements; Reports and Tests*

- A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

### 8.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

### 8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

#### 8.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

#### 8.09 *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.

#### 8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

#### 8.11 *Evidence of Financial Arrangements*

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

#### 8.12 *Compliance with Safety Program*

- 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 pursuant to Paragraph 6.13.D.

### **ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION**

#### 9.01 *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 Documents.

#### 9.02 *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 9.09. 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.

#### 9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

#### 9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

#### 9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

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

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.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 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

#### 9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

### **ARTICLE 10 – CHANGES IN THE WORK; CLAIMS**

#### 10.01 *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 by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

#### 10.02 *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 as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

### 10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
  2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
  3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

### 10.04 *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.

### 10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The

opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part;
  2. approve the Claim; or
  3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

## **ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

### *11.01 Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay

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

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
  - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
  - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
  - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
  - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
  - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone 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 Contractor is required by the Contract Documents to purchase and maintain.

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

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

#### 11.02 *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:*

1. Contractor agrees that:

- a. 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
- b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

#### 11.03 *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. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- 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. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
  2. there is no corresponding adjustment with respect to any other item of Work; and
  3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

## **ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES**

### *12.01 Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for 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, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
  2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
  3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
  2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
    - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
    - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

- c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
- d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

#### 12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

#### 12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the

control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

## **ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

### *13.01 Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

### *13.02 Access to Work*

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

### *13.03 Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
  - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
  - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
  - 3. as otherwise specifically provided in the Contract Documents.

- 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 and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

#### 13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, 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, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such 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 Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

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

### 13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

### 13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
  - 1. repair such defective land or areas; or
  - 2. correct such defective Work; or
  - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
  - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute

resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

#### 13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) 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 pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

#### 13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, 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, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, 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 (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) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. 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 13.09.

## **ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION**

### *14.01 Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

### *14.02 Progress Payments*

#### *A. Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the

Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications:*

1. Engineer will, within 10 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.
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 9.07, 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 Documents; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
  - a. to supervise, direct, or control the Work, or

- b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
  - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
  - b. the Contract Price has been reduced by Change Orders;
  - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
  - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

*C. Payment Becomes Due:*

- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

*D. Reduction in Payment:*

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
  - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
  - b. 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;
  - c. there are other items entitling Owner to a set-off against the amount recommended; or

- d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action 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, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

#### 14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

#### 14.04 *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 (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- 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 tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities

pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

- E. 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 tentative list.

#### 14.05 *Partial Utilization*

- 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. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and 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 14.04.A through D for that part of the Work.
  2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and 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 14.04 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 5.10 regarding property insurance.

#### 14.06 *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 is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

## 14.07 *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, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
  - b. consent of the surety, if any, to final payment;
  - c. a list of all Claims against Owner that Contractor believes are unsettled; and
  - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) 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.

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

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. 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. *Payment Becomes Due:*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

#### 14.08 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.09 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
  1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
  2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

### **ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION**

#### 15.01 *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 notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

#### 15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will 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 established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
  2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
  3. Contractor's repeated disregard of the authority of Engineer; or
  4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
  2. 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
  3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.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 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) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed 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.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. 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. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

#### 15.03 *Owner May Terminate For Convenience*

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

#### 15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 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 16 – DISPUTE RESOLUTION**

### *16.01 Methods and Procedures*

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
  - 1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or
  - 2. agrees with the other party to submit the Claim to another dispute resolution process; or
  - 3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

## **ARTICLE 17 – MISCELLANEOUS**

### *17.01 Giving Notice*

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

### *17.02 Computation of Times*

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

### 17.03 *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 Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

### 17.04 *Survival of Obligations*

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

### 17.05 *Controlling Law*

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

### 17.06 *Headings*

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

## SECTION 00800

### SUPPLEMENTAL GENERAL CONDITIONS

#### 1.00 GENERAL – MODIFICATIONS TO GENERAL CONDITIONS

These Supplementary General Conditions amend or supplement Section 00700, the Standard General Conditions of the Construction Contract 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.

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

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

#### A. SC-4.06 – HAZARDOUS ENVIRONMENTAL CONDITIONS

SC-4.06 – Delete Paragraphs 4.06.A and 4.06.B in their entirety and insert the following:

1. No reports of drawings related to Hazardous Environmental Conditions at the Site are known to Owner.
2. Not Used.

#### B. SC-5.04 – CONTRACTOR’S LIABILITY INSURANCE

SC-5.04 – Add the following new paragraph immediately after Paragraph 5.04.B:

C. The limits of liability for the insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers’ Compensation, and related coverages under Paragraphs 5.04.A.1 and A.2 of the General Conditions
  - a. State: Statutory
  - b. Applicable Federal  
(e.g., Longshoreman’s): Statutory
  - c. Employer’s Liability \$1,000,000 each person
2. Contractor’s General Liability under Paragraphs 5.04.A.3 through A.6 of the General Conditions which shall include completed operations and product liability coverages and eliminate the

exclusion with respect to property under the care, custody and control of Contractor

- a. General Aggregate: \$2,000,000
- b. Products – Completed Operations Aggregate: \$2,000,000
- c. Personal and Advertising Injury \$1,000,000
- d. Each Occurrence (Bodily Injury and Property Damage: \$1,000,000
- e. Property Damage liability insurance will provide Explosion, Collapse, and Underground coverages where applicable.
- f. Excess or Umbrella Liability
  - General Aggregate \$1,000,000
  - Each Occurrence \$1,000,000

3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:

- a. Bodily Injury:
  - Each Person \$1,000,000
  - Each Accident \$2,000,000
- b. Property Damage:
  - Each Accident \$1,000,000
- c. Combined Single Limit of: \$1,000,000

4. The Contractual Liability coverage required by Paragraph 5.04.B.4 of the General Conditions shall provide coverage for not less than the following amounts:

- a. Bodily Injury:
  - Each Person \$1,000,000
  - Each Accident \$2,000,000
- b. Property Damage:
  - Each Accident \$1,000,000
  - Annual Aggregate \$1,000,000

C. SC-5.05 – OWNER’S LIABILITY INSURANCE

SC-5.05 – Delete Paragraph 5.05.A in its entirety and insert the following in its place:

- A. In addition to the insurance required to be provided by the Contractor under Paragraph 5.04, Contractor shall purchase and maintain Owner’s liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents. The policy shall not be less than 1,000,000. Contractor may purchase Owner’s liability insurance as a separate policy or include under Contractor’s own liability insurance policy.

D. SC-5.06 – PROPERTY INSURANCE

SC-5.06 – Delete Paragraph 5.06.A 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. Contractor shall be responsible for any deductible or self-insured retention. The insurance shall:
  - 1. include the interests of Owner, Contractor, Subcontractors, Engineer 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 loss payee;
  - 2. be written on a Builder's Risk "all risk" policy from 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 (other than that caused by flood), and such other perils or causes of loss as may be specifically required by these Supplementary Conditions.

E. SC-6.06 – CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS

SC-6.06 – Add a new paragraph immediately after Paragraph 6.06.G:

- H. Owner may furnish to any Subcontractor of Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by a particular Subcontractor or Supplier.

F. SC-6.10 – TAXES

SC-6.10 – Add a new paragraph immediately after Paragraph 6.10.A:

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

G. SC-6.17 – SHOP DRAWINGS AND SAMPLES

SC-6.17 – Add the following new paragraphs immediately after Paragraph

6.17.E:

- F. Contractor shall furnish required submittals with sufficient information and accuracy in order to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing subsequent submittals of Shop Drawings, samples, or other items requiring approval and Contractor shall reimburse Owner for Engineer's charges for such time.
- G. In the event that Contractor requests a change of a previously approved item, Contractor shall reimburse Owner for Engineer's charges for its review time unless the need for such change is beyond the control of Contractor.

H. SC-9.03 – PROJECT REPRESENTATIVE

SC-9.03 – Add the following new paragraphs immediately after Paragraph 9.03.A:

- B. The Resident Project Representative (RPR) will be Engineer's employee or 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 Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall be through or with the full knowledge and approval of Contractor. The RPR shall:
  - 1. *Schedules:* Review the progress schedule, schedule of Shop Drawing and Sample 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 meeting, 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 authorized representative, assist in providing information regarding the intent of the Contract Documents.
    - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
    - c. Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.
  - 4. *Interpretation of Contract Documents:* Report to Engineer when clarifications and interpretations of the Contract Documents are

needed to transmit to Contractor clarifications and interpretations as issued by Engineer.

5. *Shop Drawing and Samples:*
  - a. Record date of receipt of Samples and approved Shop Drawings.
  - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
6. *Modifications:* Consider and evaluate Contractor's suggestions for modifications on Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
7. *Review of Work and Rejection of Defective Work:*
  - a. Conduct on-Site observations of Contractor's work in progress and assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
  - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress will produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in 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 that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
8. *Inspections and Tests:*
  - a. Verify that tests are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
  - b. Observe, record, and report to Engineer appropriate details relative to the test procedures.
9. *Records:*
  - a. Record names, addresses, fax numbers, email addresses, website locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of material and equipment.
  - b. Maintain records for use in preparing Project documentation.

10. *Reports:*
  - a. Furnish to 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. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
  - c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, of the discovery of any Hazardous Environmental Condition.
  
11. *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 schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.
  
12. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.
  
13. *Completion:*
  - a. Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.
  - b. Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied.
  - c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.

C. The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
2. Exceed limitations of Engineer's authority as set forth on the Contract Documents.
3. Undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor's superintendent.

4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents.
5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing of Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

I. SC-12.03 – DELAYS

SC-12.03.C—Add the following new paragraphs immediately after paragraph 12.03.C:

1. The Owner and Contractor are both aware that a substantial portion of the construction may be conducted during winter weather conditions, and that extremely variable and severe weather conditions are typical for the site of the Work:
2. The Contractor expressly agrees that the Contract Price is based on completion of the Work within the times specified in the Agreement and under weather conditions typically encountered during the contemplated construction period at the site of the Work.
3. For purposes of evaluating requests for extensions of time due to abnormal or unusually severe weather conditions, the following conditions, and no others, will be considered abnormal:
  - a. Precipitation exceeding the historical mean for the months of the construction period by more than two standard deviations
  - b. For winter construction, average temperature less than the historical mean for the months of the construction period by more than two standard deviations
  - c. For winter construction, number of days below freezing exceeding the historical mean for the months of the construction period by more than two standard deviations
  - d. Exceeding the historical mean by more than two standard deviations is: the occurrence of a precipitation event; or period of average temperature or days below freezing for winter construction that is calculated to be above, below or greater than the historical mean by more than plus or minus 47.5 percent of a normal frequency distribution curve or conditions outside a total range of 95.0 percent of the historical mean
  - e. Isolated abnormal weather occurrences of a severely destructive nature, which in fact, cause such destruction at the site of the Work

4. For the purpose of determining mean conditions, all available data contained in the records of the National Weather Service for reporting from Boulder, Colorado, as well as data available from the State Climatologist for the same areas.
5. The Contractor further agrees that should a request for time extension due to abnormal weather conditions, the Contractor shall submit all necessary historical and detailed daily data during the construction period to support the claim.”

J. SC-14.04 – SUBSTANTIAL COMPLETION

SC-14.04.F – Add the following new paragraph immediately after paragraph 14.04.E:

- A. Substantial completion for this Project shall include completion and acceptance of all Contract Work with the following exceptions:

1. Contract Closeout per Section 01700

K. SC-17.05 – CONTROLLING LAW

SC-17.05.A – Delete paragraph 17.05.A in its entirety and insert the following in its place:

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

2.00 FINAL PAYMENT

Lien waivers from all prime Contractors and Subcontractors to be provided prior to issuance of final payment.

3.00 COMPLETION TIME

Blower Building Expansion

Anticipated Construction start date                      October 12<sup>th</sup>, 2016

**Substantial completion date    Negotiable**

**Final completion date    Negotiable**

4.00 LIQUIDATED DAMAGES

- B. Contractor understands and agrees that time is an essential condition of the Contract. Contractor further understands and agrees that delay in completion of the project will cause Owner to suffer substantial losses and damages which cannot be measured, including without limitation the loss of revenues for services, loss of other revenue incidental to the operation of the facility, additional engineering, legal, accounting and administrative costs, reduced public confidence and adverse public relations which would reduce future revenues, and additional interest and financing costs and charges if the Work is not

completed within the times specified in paragraph 3.00 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or mediation proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring proof of such losses and damages, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner **FIVE Hundred** dollars (\$ **500** ) for each day that expires after the time specified in paragraph 3.00 for Substantial Completion until the Work is substantially complete.

- C. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner **One Hundred** dollars (\$ **100** ) for each day that expires after the time specified in paragraph 3.00 for final completion and readiness for final payment until the Work is finally complete and ready for final payment
- D. Owner shall have the right to deduct the liquidated damages from any money in its hands, otherwise due, or to become due , to Contractor, or to sue for and recover compensation for damages for nonperformance of this Contract within the time stipulated
- E. Any Liquidated Damages payable by Contractor may, at Owner's election be deducted from any amounts owed to Contractor. In the event no funds are due Contractor at a time when Contractor becomes liable to Owner for Liquidated Damages, then Contractor agrees to pay all accrued Liquidated Damages to Owner on the first (1st) day and on the fifteenth (15th) day of each month when Contractor is liable to Owner for Liquidated Damages, Permitting Contractor to continue and finish the Work or any part thereof after the deadline for completion of the Work shall not act as a waiver of these Liquidated Damages provisions
- F. The aggregate liability of Contractor to pay Liquidated Damages pursuant to this section shall not exceed an amount equal to fifty percent (50%) of the Contract Price. This Section shall not be construed to limit Contractor's other obligations or liabilities arising under or in connection with this Contract
- G. In the event that this section conflicts with any other provisions regarding liquidated damages within the Contract Documents, this section shall control.

## 5.00 SAFETY REQUIREMENTS

Nothing in the Contract Documents shall be construed as relieving the Contractor from protecting all property and persons or from strictly adhering to all applicable local, state and federal safety requirements. Where there is a conflict between the Contract Documents and any applicable safety requirement, the safety requirement shall take precedence.

## 6.00 LAWS AND ORDINANCES

The Contractor shall at all times observe and comply with all federal, state and local laws, ordinances and regulations which in any manner affect the contract or Work, and shall indemnify and save harmless the Owner and the Owner's agents against any claim arising from the violations of any such laws, ordinances and regulations, whether by the Contractor or his employees.

If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules or regulations, and without notice to the Engineer, he shall bear all costs arising therefrom.

#### 7.00 WAIVER

It is expressly understood and agreed that any waiver granted by the Engineer or Owner of any term, provision or covenant of this Contract shall not constitute a precedent or breach of the same or any other terms, provisions or covenants of this Contract. Neither the acceptance of the Work by the Owner nor the payment of all or part of the sum due the Contractor hereunder, shall constitute a waiver by the Owner of any claim which the Owner may have against the Contractor or otherwise.

#### 8.00 PROTECTION OF PUBLIC UTILITIES AND OTHER ADJOINING PROPERTY

The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury, or loss to other property at the site or adjacent thereto, and he shall be liable for any and all claims for such damage on account of his failure to fully provide such protection. The Contractor shall notify all public utility companies at least forty-eight (48) hours prior to commencement of any Work in the vicinity of the utilities. No Work shall commence until the utilities have been located and staked by the utility company or written consent to proceed has been given by the Engineer. If utility service must be interrupted, the Contractor shall notify the head of local administrative services, as applicable, and utility users affected by the interruption of service at least twenty-four (24) hours prior to interruption. Notice shall consist of publication in a local newspaper and/or announcement on local radio or television stations as determined by the Engineer.

#### 9.00 PROJECT PHOTOGRAPHS/VIDEOS

It is the Contractor's responsibility to take a sufficient number of pre-construction photographs/videos to resolve any disputes, which may arise regarding the conditions prior to and subsequent to construction. The Contractor shall provide copies of the pre-construction photographs/videos to the Engineer prior to the start of work. Any potential problems should be identified at that time.

Progress and record photographs/videos shall be provided by the Contractor as appropriate to resolve any disputes and to completely document the work performed as a supplement to the Record Drawings. In general, the photographs/videos should be sufficient to show that all work was properly completed in accordance with the plans and specifications.

#### 10.00 DAMAGE TO CONSTRUCTION

The Contractor shall safeguard, until all work embraced by this Contract is formally accepted, all construction, both complete and incomplete, against damage and destruction, and should damage result, he will be required to reconstruct or repair it at his expense in a manner conforming to the Plans and Specifications, reconstruction shall be in a manner suitable to the Engineer.

#### 11.00 PRE-CONSTRUCTION CONFERENCE

A pre-construction conference shall be held within fifteen (15) days after the *Notice To Proceed*, at the Owner's place of business. The purpose of such meeting shall be to explain as required to the Contractor, the requirements of the Contract Documents, the procedures to be used in the administration of the Contract, the requirements of any funding Agencies, and to discuss any item of concern to the Work. The Contractor, Owner and Engineer, or authorized representative of each, shall be required to attend such meeting as a condition of the Contract.

#### 12.00 BIDDER EXPERIENCE

Bidder experience will be considered in the award of the Contract. Contractor subject to the conditions set forth in Section 15 below.

#### 13.00 PERFORMANCE AND PAYMENT BONDS

Payment and Performance Bonds are required. (See General Conditions).

#### 14.00 WARRANTY AND WARRANTY INSPECTION

All materials and workmanship shall be warranted for a minimum of two (2) year from Substantial Completion, except as extended by standard manufacturer warranty and/or stated in the technical specifications. At the Owner's discretion, a warranty inspection will be held during the sixty (60) calendar days prior to the expiration of the warranty period. Contractor agrees to provide an authorized representative at such inspection to represent Contractor's interests. All defects identified during the inspection shall be corrected at Contractor's expense at direction of Owner in a timely manner. Corrective work shall be commenced within ten (10) calendar days after written notice to Contractor.

#### 15.00 PRE-QUALIFICATION

N/A

#### 16.00 JOB SITE RESTRICTIONS

- A. Salvage. All materials to be removed or demolished at the project site shall be disposed of by the Contractor at an approved off premises disposal site.
- B. Staging Area. Owner's property is available for Contractor staging or storage area. The Owner will designate storage and staging areas.
- C. Disposal Area. Owner's property is not available for Contractor disposal of excavation spoils. All materials shall be disposed of off-site at approved disposal sites.

- D. Working Hours. Work will normally be permitted after 7:00am to 5:00pm Monday through Friday. Other work hours must be approved by Engineer in writing. Work may be permitted on Saturday and Sunday with Owner approval. If approved by Owner, written notice must be provided a minimum of 48 hours prior to this work that outlines all work items that will be performed. The Contractor will be responsible for paying overtime rates (1.5 x the standard hourly rate) for Owner, Owner's Representative and Engineer for work necessitated by construction activities outside the permitted work hours.

## 17.00 ARBITRATION

Anything in the General Conditions of the Contract Documents notwithstanding the choice to submit any dispute to binding arbitration shall be solely that of the Owner and no other party to this Contract shall have the right to submit any controversy to binding arbitration.

## 18.00 PAYMENT RETAINAGE

- A. Prior to Substantial Completion
- a. Ninety percent of Work completed (with the balance being retainage) until fifty percent of the Work required by the Contract has been completed
  - b. If the Work has been fifty percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, Owner, on recommendation of Engineer, may determine that as long as the character and progress of the Work remain satisfactory to them, there will be no additional retainage on account of Work subsequently completed, in which case the remaining progress payments prior to Substantial Completion will be in an amount equal to one hundred percent of the Work completed less the aggregate of payments previously made; and
  - c. Ninety percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage). Stored materials and equipment retainage will be released when the materials and equipment are incorporated in the Work
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to ninety five percent of the Work completed, less such amounts as Engineer shall determine in accordance with paragraph 14.02.B.5 of the General Conditions. Amounts withheld pursuant to this Section shall be held by Owner until final payment becomes due, as described in paragraph 14.07 of the General Conditions, except for amounts withheld pursuant to a verified statement of claim filed in accordance with Article 38-26-107, Colorado Revised Statutes for which a release was not provided to Owner prior to the time at which final payment becomes due, and shall be distributed thereafter as provided in Articles 24-91-101 et seq. and 38-26-107 et seq., Colorado Revised Statutes
- C. If Owner determines that satisfactory and substantial reasons exist to reduce the retainage after Substantial Completion, written approval from the Surety shall be required before retainage is reduced below five percent. Consent of the Surety,

signed by an agent, must be accompanied by a certified copy of such agent's authority to act for the Surety

- D. The Owner may, at his discretion and at any time reduce payments to Contractor to ninety percent of the Work completed and materials and equipment not incorporated in the Work if Engineer determines that Contractor is not making satisfactory progress.

#### 19.00 REFERENCE TO OWNER OR DISTRICT

The City of Craig will be the Owner of this project and will be referred to as Owner or District in the Agreement. The District will assume operation and maintenance of the facilities and, therefore, reserves the right to inspect the project under the conditions of these current documents.

#### 20.00 PRECEDENCE OF CONTRACT DOCUMENTS

The order of precedence of Contractor Documents is as follows:

1. Addenda
2. Drawings
  - a. Detailed Drawings
  - b. Standard Drawings
3. Technical Specifications
4. Reference Technical Specifications
5. Supplementary General Conditions
6. Bid and Agreement Documents
7. Standard General Conditions of the Construction Documents

#### 21.00 BASIS OF DESIGN

It is understood that the project documents were necessarily prepared using specific pieces of equipment and manufacturer. The major equipment used as the basis of design is stated in the technical specifications. In cases where the specifications allow for substitution with an "equal" product, such evaluation will not be considered until after Bid Award. On a case by case basis, and in his sole discretion, the Engineer may allow substitution of materials and/or equipment after bid award as part of a value engineering effort. If any product other than the basis of design is used, the Contractor shall be responsible for all modifications required for incorporation into the work.

#### 22.00 WORK BY ILLEGAL ALIENS PROHIBITED

Work By Illegal Aliens Prohibited. Pursuant to Section 8-17.5-101, C.R.S., *et. seq.*, as amended, Contractor warrants, represents, acknowledges, agrees and certifies that:

- A. Contractor does not knowingly employ or contract with an illegal alien who will perform work under this agreement. Contractor shall not knowingly enter into a contract with a subcontractor that fails to certify to Contractor that the subcontractor

shall not knowingly employ or contract with an illegal alien who will perform work under this Agreement.

- B. Contractor will participate in the electronic employment verification program created in Public Law 208, 104th Congress, as amended, and expanded in Public Law 156, 108<sup>th</sup> Congress, as amended, and jointly administered by the Department of Homeland Security and the Social Security Administration, or its successor program (hereinafter, "E-Verify Program") or will participate in the "Department Program" as established in §8-17.5-102(5)(c), C.R.S., as amended, in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement.
- C. Contractor has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this agreement through participation in the E-Verify Program or the Department Program.
- D. Contractor shall not use either the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while this Agreement is being performed.
- E. If Contractor obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien, Contractor shall be required to:
  - 1. notify the subcontractor and the Owner within three (3) days that Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and
  - 2. terminate the subcontract with the subcontractor if within three (3) days of receiving the notice required pursuant to this subparagraph the subcontractor does not stop employing or contracting with the illegal alien; except that Contractor shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.
- F. If Contractor participates in the Department Program, Contractor shall provide a notarized written affirmation to Owner that Contractor has, as required by the Department Program, examined the legal work status of employees hired to perform work under this Agreement and shall comply with all other requirements of the Department Program. (A sample contract affirmation may be obtained at: <http://www.coworkforce.com/lab/pcs/default.asp>)
- G. Contractor shall comply with any reasonable request by the Colorado Department of Labor and Employment ("Department") made in the course of an investigation that the Department is undertaking pursuant to its legal authority.
- H. Nothing in this Addendum shall be construed as requiring Contractor to violate any terms of participation in the E-Verify Program.

- I. If Contractor violates this clause, the Owner may terminate this Agreement for breach of contract. If this Agreement is so terminated, Contractor shall be liable for actual and consequential damages to the Owner arising out of said violation.

#### 23.00 ASSIGNMENT OF CONTRACT

No assignment by party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without consent (except to the extent that the effect of this restriction may be limited by law), 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 Contract Documents.

#### 24.00 SEVERABILITY

Any provision or part of the Contract Documents held to void or unenforceable under and Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall 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.

**END OF SECTION**

**SECTION 00940  
WORK CHANGE DIRECTIVE**

No. \_\_\_\_\_

Date of Issuance: \_\_\_\_\_ Effective Date: \_\_\_\_\_

Project: Breeze Park Restroom	Owner: City of Craig, CO	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.: 2013-520.007

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

Item No.	Description

**Attachments (list documents supporting change):**

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**Purpose for Work Change Directive:**

Authorization for Work described herein to proceed on the basis of Cost of the Work due to:

- Nonagreement on pricing of proposed change.
- Necessity to expedite Work described herein prior to agreeing to changes on Contract Price and Contract Time.

**Estimated change in Contract Price and Contract Times:**

Contract Price \$ \_\_\_\_\_ (increase/decrease)      Contract Time \_\_\_\_\_ (increase/decrease)  
days

Recommended for Approval by Engineer:	Date
Authorized for Owner by:	Date
Received for Contractor by:	Date

Received by Funding Agency (if applicable):

Date:

**SECTION 00941  
CHANGE ORDER**

No. \_\_\_\_\_

Date of Issuance: \_\_\_\_\_ Effective Date: \_\_\_\_\_

Project: Breeze Park Restroom	Owner: City of Craig	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.: 2013-520.007

**The Contract Documents are modified as follows upon execution of this Change Order:**

Description:

**Attachments (list documents supporting change):**

**CHANGE IN CONTRACT PRICE:**

**CHANGE IN CONTRACT TIMES:**

Original Contract Price:

Original Contract Times:  Working days  Calendar days

\$ \_\_\_\_\_

Substantial completion (days or date): \_\_\_\_\_

Ready for final payment (days or date): \_\_\_\_\_

[Increase] [Decrease] from previously approved  
Change Orders No. \_\_\_\_ to No. \_\_\_\_:

[Increase] [Decrease] from previously approved Change Orders  
No. \_\_\_\_ to No. \_\_\_\_:

\$ \_\_\_\_\_

Substantial completion (days): \_\_\_\_\_

Ready for final payment (days): \_\_\_\_\_

Contract Price prior to this Change Order:

Contract Times prior to this Change Order:

\$ \_\_\_\_\_

Substantial completion (days or date): \_\_\_\_\_

Ready for final payment (days or date): \_\_\_\_\_

[Increase] [Decrease] of this Change Order:

[Increase] [Decrease] of this Change Order:

\$ \_\_\_\_\_

Substantial completion (days or date): \_\_\_\_\_

Ready for final payment (days or date): \_\_\_\_\_

Contract Price incorporating this Change Order:

Contract Times with all approved Change Orders:

\$ \_\_\_\_\_

Substantial completion (days or date): \_\_\_\_\_

Ready for final payment (days or date): \_\_\_\_\_

RECOMMENDED:

ACCEPTED:

ACCEPTED:

By: \_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Engineer (Authorized Signature)

Owner (Authorized Signature)

Contractor (Authorized

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Approved by Funding Agency (if applicable):

Date: \_\_\_\_\_

# Change Order Instructions

## A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

## B. COMPLETING THE CHANGE ORDER FORM

Engineer normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Owner or Contractor for approval, depending on whether the Change Order is a true order to the Contractor or the formalization of a negotiated agreement for a previously performed change. After approval by one contracting party, all copies should be sent to the other party for approval. Engineer should make distribution of executed copies after approval by both parties.

If a change only applies to price or to times, cross out the part of the tabulation that does not apply.

**END OF SECTION**

## **DIVISION 1**



**SGM**  
**118 W. 6<sup>TH</sup> STREET, SUITE 200**  
**GLENWOOD SPRINGS, CO 81601**

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## SECTION 01000

### GENERAL REQUIREMENTS

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. It is the intent of this Section to describe general items that affect the Work. The Contractor shall be responsible for compliance with all items specified herein. This Section is in addition to items in the General Conditions.
- B. Work to be done under this Contract consists of furnishing all labor, materials, equipment and incidental items and performing all operations necessary to complete the Work in accordance with the Drawings and Specifications.
- C. The Bidder is required to examine carefully the site of the proposed Work, the Drawings and Specifications. He shall satisfy himself as to the character, quality and quantities of work to be performed, materials to be furnished and the requirements of these Specifications. The submission of a Bid Proposal shall be evidence that the Bidder has made such an examination.

##### 1.02 PARTNERING

- A. The Contractor, Engineer and Owner shall agree to a partnering process during the construction of the project to:
  - 1. Improve the working environment;
  - 2. Reduce and rapidly resolve disputes;
  - 3. Produce a high quality product; and
  - 4. Eliminate or reduce delays.
- B. These goals can be obtained by mutually agreeing to a cooperative strategy of commitment and honest communication. By creating trust and working as a team, all parties will benefit in producing high quality which will result in successful completion of the work.
- C. Problem solving will be created by a working relationship where understanding, trust and mutual cooperation are prime concerns.
- D. However, partnering does not include relaxing or waving the requirements of the contract documents.
- E. If there is an error or oversight, or a change is suggested by the contractor that will produce a product equal to or better than that specified or shown, the parties will work together to determine the best approach while maintaining quality in the construction.

- F. All parties shall be committed to maintaining a positive attitude towards partnering and timely decision making.

### 1.03 VALUE ENGINEERING

- A. Prior to issuing Notice to Proceed, a one-day value engineering and value construction Workshop will be conducted by Engineer with Owner and Contractor prior to start of construction. The intent of the Workshop will be to evaluate alternative equipment or designs identified and proposed by Contractor from those provided in the Contract Documents that may reduce the cost of the Project and still maintain the as-bid design intent. The number of value engineering items to be evaluated and reviewed by Engineer will be limited to a maximum of 20.
- B. Contractor must submit in writing to Engineer, and for review by Owner, value engineering proposals for modifying plans, specifications, or other requirements of this Contract for the sole purpose of reducing total cost of construction. The cost reduction proposals shall not impair in any manner the essential functions or characteristics of the project, including, but not limited to, service life, economy of operation, ease of maintenance, desired appearance or design and safety standards. The attached Exhibit (at the end of this specification section) is to be utilized for documentation and submission of the proposed modifications and is to be completed by the contractor prior to the workshop.
- C. Owner has the authority to accept or reject cost reductions proposed by Contractor.
- D. Value Engineering Cost Reduction Proposals (VECP) shall contain the following information:
  - 1. A description of both existing Contract requirements for performing Work and proposed changes.
  - 2. An itemization of Contract requirements that must be changed if proposal is adopted.
  - 3. A detailed estimate of the cost of performing the Work under the existing Contract and under the proposed change.
  - 4. A statement of time within which Owner must make a decision thereon, if applicable.
  - 5. Contract items of Work affected by proposed changes, including any quantity variation attributable thereto.
- E. Four (4) copies of the VECP shall be submitted to Engineer who will retain three copies and send one for approval to Owner. If approved, two copies will be stamped and approved by both Owner and Engineer. Engineer will return one approved copy to Contractor. If not approved, Engineer and Owner will retain one copy for their files and return a rejected copy to Contractor.

- F. Contractor shall continue to perform Work in accordance with requirements of the Contract until an executed field directive or change order, incorporating a cost reduction proposal has been issued.

#### 1.04 DRAWING ACCURACY AND EXISTING UTILITIES

- A. Every effort has been made to identify and verify all existing facilities and utilities. However, some of this information may have been taken from old drawings and utility company maps pertinent to the site.
- B. As such, information relating to locations, sizes, or elevation of existing facilities should be considered only approximate. It shall be the responsibility of the Contractor to contact the appropriate representatives of utility companies, or utility locate companies, a minimum of 48 hours prior to the commencement of Work which might affect utility installations and to secure from such representatives information as to accurate location, size and type of such installations. The Contractor shall assume all responsibility for protection, repair and relocation of all such items encountered. Should repair or replacement be required, work shall be performed according to the requirements of the respective utility company.

#### 1.05 ABBREVIATIONS

- A. Wherever the following abbreviations are used in these Specifications or on the Drawings, they shall be construed the same as the respective expressions represented:
  - 1. AASHO or
  - 2. AASHTO American Association of State Highway Officials
  - 3. ACI American Concrete Institute
  - 4. AISC American Institute of Steel Construction
  - 5. ANSI American National Standards Institute, Inc.
  - 6. ASTM American Society for Testing & Materials
  - 7. AWWA American Water Works Association
  - 8. CDOT Colorado Department of Transportation
  - 9. CDPHE Colorado Department of Public Health & Environment
  - 10. CRSI Concrete Reinforcing Steel Institute
  - 11. CS Commercial Standard, U.S. Department of Commerce
  - 12. FED. SPEC. Federal Specification

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| 13. | NEC  | National Electric Code                                       |
| 14. | NEMA | National Electrical Manufacturers Association                |
| 15. | OSHA | Occupational Safety and Health Act<br>(Federal and/or State) |
| 16. | SSPC | Steel Structures Painting Council                            |
| 17. | UBC  | Uniform Building Code  |
| 18. | UL   | Underwriters Laboratories, Inc.                              |

#### 1.06 STANDARD SPECIFICATION REFERENCE

- A. Where reference is made in these Specifications to other Standard Specifications, it is the intent that the latest available revisions of the Specification referenced be used. All portions of the Standard Specification referenced shall be considered a part of these Specifications unless specifically superseded herein.

#### 1.07 CONSTRUCTION STAKING

- A. The Owner will provide one time control survey at the Breeze Park project site. Control survey will consist of three (3) control points at each site for horizontal and vertical control.
- B. The contact for the control survey is Steve Ehlers of Schmueser Gordon Meyer (SGM) at (970) 945-1004.
- C. Any re-staking of control points will be done at request of Contractor on a time and materials basis.
- D. The contractor may self perform or subcontract construction layout work, provided that contractor satisfactorily proves to the Engineer that their designated layout person has the proper training and experience.

#### 1.08 PERMITS AND EASEMENTS

- A. The Owner will provide the Contractor with a building permit. The Contractor will be responsible for coordinating inspections and meeting permit requirements.
- B. Contractor will be fully responsible for implementing, maintaining, and meeting all requirements of all permits related to the project.
- C. The successful Contractor will be required to obtain a local Contractor's license for construction operations. Proof of insurance shall be required.

#### 1.09 SUBSTITUTION OF MATERIALS

- A. At no time shall materials be substituted for those shown on the Drawings or called for in the Specifications, unless written approval is obtained from the Engineer in writing prior to construction. Any deviation from the Drawings and Specifications shall be accompanied by a written directive of the Engineer or his representative (see Article 6, General Conditions).

#### 1.10 CONTROLLED AREA OF WORK

- A. The Contractor shall confine all the construction work, storage of materials and all related activities to the public roadways, utility easements, or construction areas designated by the Engineer. Access and egress to the work area shall be minimized to specific points.

#### 1.11 TEMPORARY FACILITIES

- A. The Contractor, at his expense, shall provide all necessary temporary facilities for his own convenience or to meet local, state or federal requirements, including, but not limited to, potable water, sanitary waste facilities, power, telephone, internet, etc.

#### 1.12 CLEAN-UP

- A. The Contractor will be responsible for cleaning the job site during and after construction. A continuing effort shall be made through the duration of the contract to keep all areas clean and free of all rubbish, removed vegetation, construction waste, employee waste, and other objectionable materials generated from the project. All materials as part of this work shall be disposed off site in an acceptable manner. Final clean-up must be approved and accepted by the Owner before the contract may be considered complete.

#### 1.13 MEASUREMENTS AND PAYMENTS

- A. Payment for work performed shall be as defined in Bid Schedule. Payment shall be complete compensation for the work unit, complete and in place, unless otherwise specified. All incidentals not specifically mentioned, but required to complete the Work, shall be paid for as part of the Work unit they are related to.

#### 1.14 SUBMITTALS

- A. The Contractor shall submit a minimum of one set of submittal data, as defined in the General Requirements (Section 01340). Submittals shall be required on all materials having quality or dimension requirements as well as on all mechanical equipment or as called for in the Specifications

(See next page for exhibit)

**END OF SECTION**

EXHIBIT  
VALUE ENGINEERING AND VALUE CONSTRUCTION FORM

[Project Name]	AREA		
[Project Code]	IDEA NO.		
	ITEM		
<u>Original Concept:</u>			
<u>Proposed Concept:</u>			
<u>Advantages: Reduced Capital Costs.</u>			
<u>Risks/Disadvantages:</u>			
<u>Notes:</u>			
	<b>Cost Summary</b>		
	Alternative 1	Alternative 2	Alternative 3
Initial Costs – Original			
Initial Costs – Proposed			
Initial Savings			
Net Annual Costs – Original			
Net Annual Costs – Proposed			
Annual O & M Savings			
Total Annual Savings			
Present Worth - Savings (P/A, 7%, 20 yr)			

**SECTION 01010**  
**SUMMARY OF WORK**

PART 1 – GENERAL

1.01 SUMMARY

- A. This project encompasses the construction of a new restroom facility at Breeze Park in the City of Craig, CO.

1.02 CONTRACTOR'S RESPONSIBILITIES

A. Supervision:

1. The CONTRACTOR will supervise and direct the work. He will be solely responsible for the means and methods, techniques, and procedures of construction.
2. The CONTRACTOR will employ and maintain on the work a qualified Supervisor or Superintendent who shall have been designated in writing by the CONTRACTOR and the CONTRACTOR's representative at the site.
3. The Supervisor shall have full authority to act on behalf of the CONTRACTOR, and all communications given to the Supervisor shall be as binding as if given to the CONTRACTOR.
4. The Supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the work.
5. The Supervisor shall not be changed except with the consent of the ENGINEER, unless the Supervisor has proven to be unsatisfactory to the CONTRACTOR and ceases to be in his employ.

B. Subcontracting:

1. The CONTRACTOR may utilize the services of specialty Subcontractors on those parts of the work, which under normal contracting practices are performed by specialty Subcontractors.
2. The CONTRACTOR shall not award work to Subcontractor(s) in excess of fifty (50%) percent of the Contract Price without prior written approval of the OWNER.
3. The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of his Subcontractors, and or persons either directly or indirectly employed by them, as he is for the acts of persons directly employed by him.

4. The CONTRACTOR shall cause appropriate provisions to be inserted in all Subcontracts relative to the work to bind Subcontractors to the CONTRACTOR insofar as applicable to the work of Subcontractors and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the Contract Documents.
5. Nothing contained in this Contract shall create any contractual relations between any Subcontractor and the OWNER.

C. Safety and Protection

1. CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
  - a. All employees on the work and other persons who may be affected thereby;
  - b. All the work and all materials or equipment to be incorporated therein, whether in storage on or off the site; and
  - c. Other property at the site or adjacent thereto, including, but not limited to trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation or replacement in the course of construction.
2. CONTRACTOR shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

D. Contractor's Use of Premises

1. OWNER controls all lands upon which the work is to take place. The CONTRACTOR shall not enter upon private property for any purpose without first obtaining written permission. A copy of the document giving CONTRACTOR permission to enter private property along with all terms of this agreement shall be transmitted to the OWNER prior to entering property. CONTRACTOR shall be responsible for the preservation of all public and private property, trees, fences, monuments, underground structures, etc., on and adjacent to the site and shall use every precaution necessary to prevent damage or injury thereto. He shall protect carefully from disturbance or damage, all land monuments and property corners until an authorized agent has witnessed or otherwise referenced their location, and shall not remove them until directed. He shall be responsible for all damage or injury to property of any character resulting from any act, omission, neglect or misconduct in his or any Subcontractor's manner, or method or executing said work, due to this or any Subcontractor's non-execution of said work, or at any time due to

defective work or materials, and said responsibility shall not be released until the work shall have been completed and warranty period expired.

2. The CONTRACTOR shall be responsible for all utilities required for construction at no cost to the OWNER.
3. Necessary sanitary conveniences for the use of project personnel shall be properly secluded from public observation and shall be erected and maintained by the CONTRACTOR at such points acceptable to the ENGINEER.

#### 1.03 CONSTRUCTION OBSERVATION

- A. The OWNER and ENGINEER will supply construction observation services as needed. Observation will be provided at no additional cost to the CONTRACTOR between the hours of 7:00 a.m. and 5:00 p.m. (or such hours as previously agreed to during the Preconstruction Meeting) not to exceed ten (10) hours per day, Monday through Friday, excluding OWNER's holidays. Any observation time required outside of the above indicated hours will be billed to the CONTRACTOR, or withheld from payments due the CONTRACTOR, at a rate of 1.5 times the ENGINEER's billing rate for observation plus a twenty (20%) percent administrative charge.

#### 1.04 OWNER COORDINATION AND NOTIFICATION

- A. The CONTRACTOR shall coordinate his efforts with the OWNER so as to minimize disruption of existing service and inconvenience to other adjacent contractors and adjacent property owners.
- B. Contractor shall notify Owner a minimum of 48 hours in advance of any efforts needing coordination and/or special inspection by Owner or their representative. Such efforts include but are not limited to:
  1. Service/access interruptions

#### 1.05 SEQUENCE OF WORK

- A. Construction Sequencing: Work efforts, commissioning and decommission of the work herein described will include a critical sequence of work. CONTRACTOR shall take into account this sequence when preparing bid and the successful bidder shall include this sequence in the construction schedule. Coordination of work necessary to meet the construction sequence as discussed below is the responsibility of the CONTRACTOR. The ENGINEER and OWNER shall be updated prior to start and completion of each phase.
- B. The CONTRACTOR shall develop his own sequence of work to minimize construction time, site disturbances and interruptions of existing plant operations. Testing and Startup schedule and sequence shall be thoroughly discussed and coordinated with ENGINEER and OWNER

- C. Procedures and methods other than those specified will be considered by ENGINEER and OWNER, provided they afford equivalent continuity of operations.
- D. Discuss Sequence of Work and Notice Required at Progress Meetings.
  - 1. Review with and obtain ENGINEER's and OWNER's input to CONTRACTOR's initial scheduling of Work sequence during Preconstruction Conference.
  - 2. Review any changes in scheduling at regularly scheduled Progress Meetings.
  - 3. Schedule additional construction meetings required to discuss work sequence.
  - 4. Refer to Section 01310 Construction Schedules for additional requirements on Progress Schedules.
- E. Inspection by Public Agencies
  - 1. Provide proper facilities for such access and inspection.
- F. It will be the CONTRACTOR's responsibility to schedule and sequence his activities so as to best meet environmental conditions imposed by winter weather.
- G. The CONTRACTOR shall coordinate his efforts with each subcontractor so as to avoid conflicts and work slowdowns.

## PART 2 – PRODUCTS

### 2.01 OWNER FURNISHED MATERIALS

Not applicable

### 2.02 MAINTENANCE OF ACCESS

- A. Conduct work to interfere as little as possible with the operation of the current Breeze Park, operated by the City of Craig.

## PART 3 – EXECUTION

### 3.01 FENCES

- A. Maintain all fences affected by the Work until completion of the Work.
- B. Do not relocate or dismantle fences that interfere with construction operations before obtaining written permission from the fence owner with an agreement as to the length of time the fence may be left relocated or dismantled.

- C. At the completion of Work, replace fences to their pre-construction condition or better and to their pre-construction location unless otherwise indicated on drawings or in specifications.
- D. Refer to construction drawings for additional requirements.

### 3.02 UNDERGROUND OBSTRUCTIONS

- A. Protect from damage any underground pipes, utilities, or structures encountered during construction.
- B. Restore any damaged underground obstructions to their original condition at no cost to the OWNER unless evidence of other arrangements satisfactory to all parties is presented to the OWNER.

**END OF SECTION**

## **\*SECTION 01025**

### **MEASUREMENT AND PAYMENT**

#### **PART 1 – GENERAL**

##### **1.01 SUMMARY**

2013-520.007vall

- A. This section describes the procedure for Application for Payment by the Contractor. This section establishes the basis of payment, application format, application content and application review process required by the Owner before they will process the application for actual payment.

##### **1.02 FORMAT AND DATA REQUIRED**

- A. Submit Applications for Payment and all other required forms and information to the Engineer.
- B. Provide itemized data on continuation sheets.
- C. Format, schedules, line items, and values: Those of the approved Schedule of Values.

##### **1.03 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT**

- A. Prepare Application for Payment and all other required information to Engineer in accordance with terms and schedule established in the General Conditions, Supplemental General Conditions and the Agreement Between Owner and Contractor, or as otherwise negotiated between Owner and Contractor.
- B. Application Form:
  - 1. Required information completed, including that for Change Orders executed prior to the date of submittal of application.
  - 2. Summary of dollar values to agree with the respective totals indicated on the continuation sheets.
- C. Continuation Sheets:
  - 1. Total list of all scheduled component items of Work, with item number and the scheduled dollar value for each item.
  - 2. Dollar value in each column for each scheduled line item when work has been performed.
  - 3. Each Change Order executed prior to the date of submission shall be listed at the end of the continuation sheets.

4. List by Change Order number and description as for an original component item of work.
- D. Contractor shall execute certification with the signature of a responsible officer of the Contractor's firm.

#### 1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When Owner or Engineer requires substantiating data, Contractor shall submit suitable information with a cover letter identifying:
1. Project name and number.
  2. Application number and date.
  3. Detailed list of enclosures.
- B. Submit one (1) copy of data and cover letter for each copy of application.

#### 1.05 SCHEDULE OF VALUES

- A. Refer to General Conditions for requirements.
- B. Where payment is to be based on unit bid prices, correlate Schedule of Values with bid items.
- C. Where payment is to be based on fixed price, correlate Schedule of Values with divisions and sections of specifications, unless otherwise approved by the Engineer.

#### 1.06 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Contractor shall complete Application form as specified for progress payments.
- B. Continuation sheets used for presenting the final statement of accounting as specified in Section 01700-Contract Closeout.

#### 1.07 SUBMITTAL PROCEDURE

- A. Submit Application for Payment and all required information to Engineer for review in accordance with the established schedule. Application and all related forms shall be properly executed by signature of a responsible officer of the Contractor's firm.
- B. Engineer to review and verify Application for Payment within established schedule. Contractor shall make corrections noted by Engineer and re-submit three copies of Application to Engineer.
- C. When Engineer finds the Application complete and correct, Engineer will transmit two copies of the complete Application packet to Owner for processing.

## 1.08 BASIS OF PAYMENT

### A. LUMP SUM PRICES

1. Where lump sum prices are given for a described portion of the work, that price shall cover all materials, equipment and labor necessary to acquire, deliver, store and install that portion of the work, complete and in place, as shown and indicated in the drawings and as described in the Project Manual.
2. Quantities given in the bid form are estimates for the purpose of evaluating bids. Consequently, some differences may arise in actual and bid quantities.
3. Quantities given for lump sum items, including earthwork, are estimates only. The Contractor should satisfy himself as to the actual quantities required to complete the work described in the plans and these specifications. Unit costs for earthwork will not be employed to determine payment.

### B. UNIT PRICE BID ITEMS

1. Payment for work included in unit price bid items shall be based on the completed value of each unit in such quantity actually installed as measured and determined by the Engineer unless the approved Schedule of Values provides sufficient detail for measurement and payment of partial progress of work.
2. Unit pricing shall include all materials, equipment and labor necessary to complete the bid item as shown and indicated in the project documents.
3. Quantities given in the bid form are estimates for the purpose of evaluating bids. Consequently, some differences may arise in actual and bid quantities.
4. Contractor or Owner may request re-negotiation of Unit Price for an item if the actual field measured work done for that item differs from the estimated quantity by more than 50% under the following terms:
  - a. Contractor shall not make any claim for damages for any work item for which the actual field measurement does not differ from the estimated quantity by more than 50%, higher or lower.
  - b. Re-negotiated Unit Prices shall be based on actual costs to Contractor for the specific work item plus a reasonable allowance for overhead and profit.
  - c. Re-negotiating the Unit Price shall not increase or decrease the Unit Price by more than 10 percent.
  - d. Contractor shall submit to Owner satisfactory data substantiating the actual costs and overhead rate to perform the Work covered by the Unit Price being re-negotiated..
5. No payment will be made if the entire bid item is unused.

C. MINOR CONTRACT REVISIONS

1. If provided on the Bid Schedule, the Minor Contract Revisions line item is for the sole use of Owner at Owner's discretion for changes to the project.
2. The Contractor's shall include the dollar amount provided by the Owner for Minor Contract Revisions in his base bid total.
3. The intent of this line item is provide the Owner's designated project manager a mechanism to approve minor changes to the work, either from Contractor requested changes or from Owner modification, without unnecessary project delay and without further approval by the Owner.
4. The Owner shall retain all unused monies in this line item.
5. The Owner shall direct Contractor in writing when this line item is to be used along with the amount to be included in the Application for Payment.

1.09 BID ITEMS

A. Bid Item # 1: Breeze Park Restroom

1. Description:
  - a. This line item is for the complete construction of the Breeze Park Restroom.. All materials, equipment and labor required for construction of expansion.
2. Inclusions/Exclusions:
  - a. All excavation will be completed by owner and excluded from contract.
  - b. Four (4) feet of concrete walkway surrounding the perimeter of the structure
3. Payment Basis:
  - a. Lump Sum with payments based on schedule of values

**END OF SECTION**

## SECTION 01300

### SUBMITTALS

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. Requirements. The Contractor shall submit to the Engineer for approval all submittals required by the Contract Documents. Submittal shall be submitted on form 01300-A.
- B. Form 01300-A includes an area for the contractor to check that he has verified that the material or equipment meets the specification requirements or deviates from the specification for the reasons listed. A line also exists for the contractor to sign the submittal. If the areas are not checked or the submittal is unsigned, it will be returned disapproved.
- C. The contractor shall review and approve all shop and layout drawings, product data, samples, materials, manuals and plans required to be submitted by the contract documents. Approval by the contractor dictates that he has verified all materials, field measurements with those shown on the drawings, and similar items. Approval also indicates that the contractor has coordinated Information contained in the submittal with work requirements of all trades and with the contract documents. The contractor's submissions to the Engineer shall be timely so as to not delay the work.
- D. The contractor is required to submit five hard copies of each submittal or re-submittal for approval. The Engineer will return two copies to the contractor. The Engineer may request up to an additional five copies of Manuals by notifying the contractor in writing and such copies will be at no extra cost.

##### 1.02 SUBMITTAL CONTENT

- A. The submittal number shall be arranged as follows:
  - 1. The first character shall be a letter identifying "D" as a shop or layout drawing, "5" as a sample, "M" as a manual or miscellaneous, or "P" as a plan or schedule.
  - 2. The next 5 digits of the submittal number shall be the specification Section number.
  - 3. The next 3 digits shall be the numbers 001 through 999 to sequentially number each separate package submitted under each specific specification Section number.
  - 4. The last character shall be a letter A through Z indicating whether the submittal is the first submission (A) or a resubmission (B through Z). The letter "B" indicates a second submission, "C" a third submission, etc. An

example of a submittal number would be D-03300-008-B, which indicates a shop drawing submittal pertaining to the concrete section that is the eighth submittal under this section and is the second submission of this particular shop drawing.

- B. Submittals will be returned to the contractor marked either “NET” which means that No Exceptions Taken, or the submission is approved, “MCN” which indicates Make Corrections Noted, and that the submittal is approved subject to incorporation of the comments shown on the submittal, “A&R” which is Amend and Resubmit, and “R” which is Rejected, or the submittal is disapproved for the reasons shown or listed and shall be resubmitted. One other notation may be shown as “N” which is Noted, for a submittal that does not require Engineer approval but will be placed in the project files.
- C. Reviewed submittals will be returned to the contractor with the Engineer’s comments, if any. The Engineer’s review is for general conformance with the contract documents only and all work is still subject to the detailed requirements of the contract documents. The Engineer’s review is to help the contractor find or discover errors and omissions. The Engineer’s review does not relieve the contractor of the obligation and responsibility to coordinate and plan the details of the work and fulfill the intent and purpose of the contract. The Engineer’s review shall not relieve the contractor of the responsibility for accuracy, proper fit or proper functioning and performance of the work. The Engineer reserves the right to require written conformation from the contractor that the comments placed on submittals stamped “MCN” were actually or will be implemented. The Engineer will make every reasonable effort to process and return each submittal within 15 days after receipt in the Engineer’s office, but with the following qualifications:
1. Large or multiple submittals may require additional time.
  2. Contractor may prioritize submittals and Engineer will review and return them in the order of highest priority.
  3. If requested by the contractor, individual drawings from large submittals with numerous drawings may be returned as they are reviewed rather than waiting for the entire review to be completed.
  4. The need for re-submissions or delays in obtaining the Engineer’s review or approval shall not entitle the contractor to a time extension for contract completion.
- D. The contractor shall make all corrections and changes to submittals as required by the Engineer and resubmit until approved. The contractor shall review submittals returned by the Engineer and shall determine if changes requested by the Engineer result in extra cost. He shall notify the Engineer in writing within 5 days of receiving a returned submittal if the contractor believes extra costs will be incurred along with the reasons for such belief. Failure of the contractor to notify the Engineer of the extra costs, or if the contractor proceeds with the work, ordering materials, products or equipment or delivery to the site, waives the contractor claim for compensation.

- E. Only the contractor shall make submissions to the Engineer. All data and correspondence prepared by subcontractor and suppliers shall be submitted through the contractor. The contractor shall prepare submittals with sufficient information, and in such a manner, that no more than two submittals are necessary to obtain the Engineer's approval. If more than two submittals are required, the Owner reserves the right to deduct the cost of the Engineer's time to review all additional re-submittals (after re-submittal number two) from moneys due the contractor.
- F. The contract drawings are diagrammatic and show the general arrangement of the complete construction work. The contractor shall review the drawings and specifications and shall include any and all work required to provide a complete and operable facility. The contractor shall be responsible for preparing and submitting to the Engineer for review, all general arrangement drawings showing the interrelationships between civil construction and all mechanical, electrical and instrumentation equipment to be installed. Should there be a need to deviate from the contract drawings and specifications, the contractor shall submit written details, comparisons with the contract requirements, reasons for all changes, an explanations as to why the proposed change is equal or better than the contract requirement and any reduction or increase in cost for the change to the Engineer for approval before making such changes. All extra costs to make the changes to structures, electrical, mechanical, piping and other items associated with a change shall be borne by the contractor. In the event of varying interpretations of the contract documents, the Engineer's interpretation shall govern.

### 1.03 REQUIRED SUBMITTALS

- A. Submittal Schedule. The contractor shall submit to the Owner for approval a detailed schedule listing all submittals to the Owner. This schedule shall include, but is not limited to, shop drawings and related data; layout drawings; materials, equipment, and fixture lists; certificates of compliance; spare parts data; sample materials and equipment manuals; test procedure plan and test results. The schedule shall indicate the type of item, contract requirement reference; the contractor's scheduled dates for submitting the above items and projected procurement dates. The contractor shall revise and resubmit schedules as necessary to the Owner for monitoring.
- B. Shop Drawings. See Section 01340 – Shop Drawings.
- C. Testing and Inspection plan. NOT APPLICABLE.
- D. Layouts of Temporary Construction Facilities. NOT APPLICABLE.
- E. Project Record Documents. See Section 01700 - Contract Closeout
- G. Schedule of Values. Refer to General Conditions for requirements. On bid items to be paid as lump sum that may extend beyond a single pay estimate, a schedule of values shall be submitted to OWNER a minimum of 10 days prior to work on that item. Adequate detail shall be given to allow a value to be placed on work completed during any given pay estimate. Where payment is to be based on unit bid prices, correlate schedule of values with Divisions and Sections of

Specifications, unless otherwise approved by the Engineer. If separate payment is to be requested for materials suitably stored but not installed, paid invoices for the item shall be submitted.

- H. Construction Schedule. NOT APPLICABLE.
- I. Progress Reports. During the performance of the work, the contractor shall submit to the Owner a written monthly progress report on or before the fifth of each month covering the previous month. Such progress reports shall include:
  - 1. A copy of the construction schedule outlining progress to date for the previous major items of work.
  - 2. A narrative summary indicating the status of work performed and other pertinent activities indicating the actual percentage of work completed and an estimate of the percentage of work to be completed in the succeeding month; problem areas and recommended solutions, and manpower hours used by trade. If the work has fallen behind schedule, the contractor shall state how the time is to be made up to remain on schedule. Include construction photographs.
  - 3. The progress report shall include a procurement and delivery schedule, listing items approved, ordered, delivered and installed, for equipment, products and materials.
  - 4. If a progress report is not submitted, the Owner reserves the right to withhold payment until delivered.
- J. Groundwater and Earthwork Management Plan. NOT APPLICABLE.
- K. Certificates of Compliance. Certificates required for demonstrating proof of compliance with specification requirements, including mill certificates, shall be provided by the contractor. It shall be the contractor's responsibility to review and approve all certificates before submissions are made to ensure compliance with the contract requirements. Each certificate shall be signed by an official authorized to certify on behalf of the manufacturing company and shall contain the name and address of the contractor, the project name and location and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the contractor from furnishing satisfactory material, if, the material is later found not to meet the specific requirements.
- L. Miscellaneous Submissions.
  - 1. Accident Reports shall be submitted in 3 copies as soon after the accident as possible.
  - 2. The contractor shall submit an organization chart of his construction team for approval not later than 14 days after the beginning of mobilization or

prior to any construction activity on the site. It shall show executive, administrative, and construction supervision broken into trades and crews shall include subcontractors and shall:

- a. Include all personnel from Ownership through Project Manager to foreman level and designate the extent of authority and responsibility and those who can receive field orders, sign documents, etc.
  - b. Describe personnel duties.
  - c. Provide qualifications and experience of those not included in prequalification documents.
  - d. Contractor shall update the organization chart whenever key people are changed. The Engineer may interview any of the contractor's proposed staff prior to approval.
3. Insurance Certificates. Refer to General Conditions and Supplemental General Conditions for submittal requirements. Submit updated certificates as necessary to verify current coverage.

**END OF SECTION**

**01300-A SUBMITTAL TRANSMITTAL FORM**  
**(This form to be enclosed with ALL Submittals)**

		Seq. #	
Submittal Description:		Submittal #	
Specification Section:	Routing	Date Sent	Date Rec'd
OWNER: City of Craig	Contractor/Engineer		
PROJECT: Breeze Park Restroom			
CONTRACTOR:			

We are sending you:     Attached  
                                    Under separate cover via \_\_\_\_\_  
                                    Submittals for review and comment  
                                    Product data for information only

Remarks:

Item	Copies	Date	Section No.	Description	Review Action (1)	Reviewer Initials	Review Comments Attached

<sup>(1)</sup> **Note: NET**=No exceptions taken; **MCN**=Make corrections noted; **A&R**=Amend & resubmit; **R**=Rejected, Develop Replacement  
 Attach additional sheets if necessary.

**Contractor**

Certify either A or B:

- A    We have verified that the material or equipment contained in this submittal meets all the requirements, including coordination with all related work, specified (no exceptions).
- B    We have verified that the material or equipment contained in this submittal meets all the requirements specified, except for the attached revisions.

#	Deviation

Certified by: \_\_\_\_\_  
                                   Contractor's Signature

Date: \_\_\_\_\_

## SECTION 01340

### SHOP DRAWINGS

#### PART 1 – GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. The CONTRACTOR shall submit to the ENGINEER for approval all shop drawings required by the specification sections.

##### 1.02 SHOP DRAWINGS

- A. Shop drawings shall be prepared by a qualified detailer for CONTRACTOR, subcontractor, supplier, or manufacturer, and shall illustrate some portion of the work, showing fabrication, layout, setting, or erection details.
- B. Identify details by reference to sheet and detail numbers shown on Contract Drawings. Use same symbols used on Contract Drawings to identify shop drawing details wherever practicable.

##### 1.03 PRODUCT DATA

- A. Submit manufacturer's standard schematic drawings:
  - 1. Modify drawings to delete information that is not applicable to the project.
  - 2. Supplement standard information to provide additional information applicable to project.
- B. Submit manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, and other standard descriptive data.
  - 1. Clearly mark each copy to identify pertinent materials, products or models.
  - 2. Show dimensions and clearances required, performance characteristics and capabilities, wiring diagrams and controls, and any other pertinent data applicable to the project.
- C. Submit manufacturer's certificate of compliance certifying to compliance with specification requirements, applicable reference standards and test data requirements. Include reference to the specification section and paragraph with which the product or materials is intended to comply.

#### 1.04 CONTRACTOR RESPONSIBILITIES

- A. CONTRACTOR shall submit an electronic copy of each shop drawing required.
- B. Submittals shall be made by CONTRACTOR to the ENGINEER with a transmittal form or letter and not by subcontractors, suppliers or manufacturers. CONTRACTOR shall review, stamp with his approval, and submit in orderly sequence all submittals required by the specifications. By approving and submitting items, CONTRACTOR represents that he has verified all field measurements, field construction criteria, materials, catalog numbers, and similar data, and has coordinated each shop drawing with requirements of the project.
- C. The CONTRACTOR shall not begin work that requires submittals until the ENGINEER reviews and approves submittals. The ENGINEER will return an approved copy of the submittal to the CONTRACTOR.
- D. CONTRACTOR's responsibility for errors and omissions in submittals, or for deviations in submittals from requirements of the Contract Documents, shall not be relieved by review of submittals unless ENGINEER gives written acceptance of specific deviations. The CONTRACTOR shall notify ENGINEER in writing at time of submission of deviations in submittals from requirements of the Contract Documents.

**END OF SECTION**

**SECTION 01631  
REQUEST FOR SUBSTITUTION**

PROJECT: <u>Breeze Park Restroom</u>			
OWNER: <u>City of Craig</u>			
TO: <u>SGM, INC.</u>			
SPECIFIED ITEM:			
<u>Section</u>	<u>Page</u>	<u>Paragraph/Article</u>	<u>Description</u>
The Contractor hereby requests consideration of the following:			
PROPOSED SUBSTITUTION: _____			
<p>Attached data includes product description, specifications, drawings, photographs, performance, and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.</p> <p>Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.</p> <p>The Contractor certifies that the following paragraphs, unless modified by attachments, are correct:</p> <ol style="list-style-type: none"> <li>1. The proposed substitution does not affect dimensions shown on Drawings.</li> <li>2. The Contractor will pay for changes to the building design, including engineering design, detailing, and construction costs caused by the requested substitution.</li> <li>3. The proposed substitution will have no adverse affect on other trades, the construction schedule, or specified warranty requirements.</li> <li>4. Maintenance and service parts will be locally available for the proposed substitution.</li> </ol> <p>The Contractor further states that the function, appearance, and quality of the proposed substitution are equivalent or superior to the specified item</p>			
Submitted by:		For use by the Engineer	
Signature: _____		<input type="checkbox"/> Accepted	
Firm _____		<input type="checkbox"/> Accepted as noted	
Address _____		<input type="checkbox"/> Rejected	
_____		<input type="checkbox"/> Received too late	
Date _____		By _____	
Telephone _____		Date _____	
		Remarks _____	
Attachments			

**END OF SECTION**

**SECTION 01700**  
**CONTRACT CLOSEOUT**

**PART 1 – GENERAL**

**1.01 SUMMARY**

- A. Work to be performed under this section shall include all labor, equipment, materials and miscellaneous items necessary to provide all documents, information and items as specified herein.

**1.02 PROJECT RECORD DOCUMENTS.**

- A. Maintain at the job site one record copy of the following (updated daily):
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Reviewed Shop Drawings.
  - 5. Change Orders.
  - 6. Other Modifications to Contract.
  - 7. Field Test Records.
- B. Do not use record documents for construction purposes. Maintain documents in clean, dry legible condition, apart from documents used for construction.
- C. Label each document "Record Document". Mark all information with contrasting color using ink. Keep each record current. Do not permanently conceal any work until required information is recorded.
- D. Record following information on Drawings:
  - 1. Northing and Easting coordinates for all building corners and all buried pipes and utilities (at ends, changes in alignment, fittings and valves). Coordinates shall be in the project coordinate system.
  - 2. Building Locations and depth of foundation elements.
  - 3. Horizontal and vertical location of underground utilities.
  - 4. Location of internal utilities and appurtenances concealed in construction.
  - 5. Structural, architectural, mechanical and electrical installations.

6. Field changes of dimension and detail.
  7. Changes by Change Order or field order.
  8. Details not on original Contract Drawings.
- E. Record following information on Specifications:
1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
  2. Changes by change order or field order.
  3. Other matters not originally specified.
- F. Maintain Shop Drawings as record documents recording changes made after review as specified for Drawings above.
- G. At completion of project, deliver record documents to Engineer with transmittal letter containing date, project title and number, contractor's name and address, title and number of each record document, and certification that each document is complete and accurate. Submittal shall be signed by Contractor or his authorized representative.

### 1.03 CLOSEOUT PROCEDURES.

- A. The following project closeout procedure defines the responsibilities of the Contractor, Owner and Engineer in closing the project. Closeout may be conducted by areas or portions of the work if required by the project or requested by Owner.
1. Step 1: Contractor advises Engineer in writing that he has reached "Substantial Completion" and provides a list of items to be completed or corrected.
    - a. Completion of all testing and training required.
    - b. Have all utilities connected and operational.
    - c. Dismantled and removed temporary construction facilities.
  2. Step 2: Engineer inspects the work to determine if it is substantially complete, and issues a Certification of Substantial Completion plus a "punch list" of items to be completed or corrected.
  3. Step 3: Contractor completes and/or corrects all punch list items and notifies in writing that his work is ready for final inspection. At this time, a final application for payment is submitted to the Engineer.
    - a. Engineer's and Contractor's punch list of deficiencies from the substantial completion inspection stating how each item has been corrected or otherwise resolved.
    - b. Submit a final meter reading for all utilities, a measured record of stored fuel and chemicals and similar data as of the time of final inspection.

- c. Complete listing of all consumables and spare parts used by the contractor to service the elector-mechanical equipment after testing.
  - d. Submittal of Record Drawings.
  - e. Notify the Engineer that the facility is ready for the final inspection including the punch list items and that all marred or damaged finishes have been repaired or restored in the notification letter.
4. Step 4: Engineer makes final inspection. When the Work is found to be acceptable under the Contract Documents, and the contract fully performed, Engineer will issue a final Certificate of Payment.

#### 1.04 RE-INSPECTION FEES

- A. Should the Contractor fail to complete and/or correct all punch list items such that additional inspections are required by the Engineer, the Contractor will be billed at the Engineer's current rate for additional services. If the Contractor has any question with regard to any items on the punch list, he is to request clarification before final inspection.

#### 1.05 FINAL PAPERWORK

- A. Prior to release of final payment, the General Contractor shall deliver the following items to the Engineer:
- 1. Inspection Certificates, as applicable.
  - 2. Material guarantees/warranties.
  - 3. General Contractor's two-year guarantee of materials and workmanship.
  - 4. Final application for payment.
  - 5. Consent of surety to final payment (Spec. Section 00692).
  - 6. Contractor's affidavit of release of liens (Spec. Section 00691).
  - 7. Final Project Record Documents
    - a. The purpose of final project record documents is to provide factual information regarding all aspects of work, both concealed and visible, to enable future modification of work to proceed without lengthy and expensive site measurement, investigation, and examination.
      - 1) Transfer of Data to Drawings
        - i. Carefully transfer all data to a clean set of drawings, coordinating changes as required.
        - ii. Clearly indicate at each affected detail and other drawing, a full description of changes made during construction, and the actual location of items to be located.
        - iii. Call attention to each entry by drawing a "cloud"

- around the area/s affected.
    - iv. Make changes neatly, consistently, and with the proper media to assure longevity and legibility.
  - 2) Transfer of Data to other Documents
    - i. If documents other than drawings have been kept clean during progress of work, and if entries thereon have been orderly and acceptable to the Engineer, the job set of those documents other than drawings will be accepted as final record documents.
    - ii. If any such document is not acceptable to the Engineer, secure a new copy of that document from the Engineer at Engineer's usual charge for reproduction and handling, and carefully transfer the changed data to the new copy for acceptance by the Engineer.
  - 3) Changes subsequent to acceptance
    - i. Contractor has no responsibility for recording changes in work subsequent to final completion, except for changes resulting from warranty work.
- 8. Contractor acknowledgement of Date of Substantial Completion.
- 9. The above items are described in following articles or applicable sections of the Specifications.
- 10. Inspection Certificates. Each subcontractor shall, upon completion of the Work, secure in triplicate from any state or local governing bodies having jurisdiction in dictating that the Work is in strict accordance with the applicable codes and deliver the same to the General Contractor for transmittal to the Owner.

#### 1.06 WARRANTY

- A. The General Contractor and each subcontractor shall remedy any defects due to faulty materials or workmanship and pay for any damage to other Work resulting therefore, which shall appear in his Work within the specified Warranty Period, as specified in the Supplementary General Conditions. The Contractor's warranty shall begin upon issuance of the Notice of Acceptance and in accordance with the terms of any special warranties provided in the Contract. The Owner shall give notice of observed defects with reasonable promptness.
- B. A final warranty inspection will be required thirty (30) days prior to expiration of the warranty.
- C. Upon completion of his Work, the General Contractor shall deliver to the Engineer in duplicate, a written warranty based on the provision of the Article properly signed and notarized. Warranty shall be address to the Owner and assembled in a binder with a durable plastic cover and with a table of contents.
- D. The warranty period shall begin upon acceptance by Owner with written Notice of

Substantial Completion.

1.07 MISCELLANEOUS KEYS, SWITCHES AND WRENCHES

- A. At the completion of the project, all keys shall be accounted for and turned over to the Owner.

1.08 FINAL CLEANING.

- A. Prior to final inspection, the contractor shall clean all interior and exterior surfaces exposed to view but shall avoid disturbing natural weathering of exterior surfaces.
  - 1. Exterior Cleaning (During Construction)
    - a. Construction debris shall be confined in strategically located container(s) covered to prevent blowing by wind. Debris shall be removed from the work area to container daily. Debris shall be hauled from the site once a week at a minimum.
    - b. Comply with stormwater general permit requirements and monitor and employ best management practices.
  - 2. Interior and Exterior Cleaning (Final Cleaning)
    - a. Remove trash and debris containers from the site. Reseed areas disturbed by location of debris containers.
    - b. Broom clean all paved surfaces.
    - c. Rake clean other surfaces of grounds.
- B. The contractor shall comply with all safety standards and shall not bury or burn waste on the site.

1.10 CERTIFICATE OF FINAL COMPLETION

- A. The Owner/Engineer will issue a Certificate of Final Completion in writing after successful plant startup with proper operation and control, correction of all punch list items, receipt and acceptance of the verification letter, and all items in Project Closeout section are completed.

**END OF SECTION**

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## **DIVISION 2**



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## SECTION 02626

### CONCRETE CURB AND GUTTER, SIDEWALK, CURBWALK AND DRIVEWAY

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. This Work shall include furnishing all materials, labor, equipment and miscellaneous items necessary for the construction of concrete curb, gutter, sidewalk, handicap ramps, driveway or any combination thereof, all in accordance with these Specifications and in close conformity with the lines, grades, and typical sections as shown on the Construction Drawings or established in the field.

#### PART 2 – PRODUCTS

- A. The materials shall conform to the requirements specified in the following:
  - 1. Construction Drawings.

##### 2.01 JOINT FILLER

- A. Pre-molded, preformed conforming to AASHTO M213 to the full depth of the section.

##### 2.02 STRUCTURAL CONCRETE

- A. See Section 03300 for complete Specification.

##### 2.03 FIBERMESH

- A. Fibermesh additive at the rate of 1½ pounds/cubic yard shall be used with all concrete. Use shall be in accordance with manufacturer's recommendations.

#### PART 3 – EXECUTION

##### 3.01 EXCAVATION

- A. Excavation shall be made to the required depth and width to permit the installation and bracing of the forms. The foundations shall be shaped and compacted to a firm even surface conforming to the section shown on the Construction Drawings. Material determined to be unsuitable or non-compact by the Engineer will be removed and replaced.

##### 3.02 FORMS

- A. Forms shall be wood or metal and shall extend for the full depth of the concrete. All forms shall be straight, free from warp and of sufficient strength to resist the pressure of the concrete without springing. Bracing and staking of forms shall be

such that the forms remain in alignment both horizontally and vertically until removal. Satisfactory slip forms may be used when approved. Use of curbing machine will be permitted providing line and grade tolerances can be met.

- B. Steel plates that can be shaped to the desired radius shall be used on all short radii. Open joints shall be formed with a steel separator plate conforming to the section being installed.
- C. Oil and clean all forms prior to placement of concrete.

### 3.03 MIXING AND PLACING

- A. The foundations shall be thoroughly moistened immediately prior to the placing of the concrete. Compaction of the concrete shall have thorough consolidation achieved by tamping, spading, vibrating or other acceptable methods. Forms shall be left in place until the concrete has set sufficiently to prevent deformation due to removal. Upon removal of the forms, the curb face shall be immediately finished to a uniform surface. In the case of matching existing concrete finishes, an approved method shall be used.

### 3.04 FINISHING

- A. The surface shall be floated with a wood or magnesium float and given a broom finish. No plastering of the surface will be permitted. All outside edges of slabs and joints shall be rounded to a ¼-inch radius. Broom marks to be perpendicular to traffic or pedestrian flow for installation of sidewalk or concrete flatwork. Broom marks to be parallel to traffic flow for installation of curb and gutter.

### 3.05 JOINTS

- A. Expansion joints shall be made using ½" pre-molded expansion joint. Construction joints, using ½" pre-molded joint filler, shall be placed at the end of a day's run or during a day's work if there is more than a 30 minute delay in concrete delivery.
- B. Construction joints shall be formed around all appurtenances such as manholes, utility poles, adjacent structures, etc., extending into or abutting the Work. Pre-molded expansion joint filler ¼" thick shall be installed in these joints. Expansion joint filler shall be installed between concrete sidewalks and any fixed structure.
- C. Dummy joints (contraction joints) shall be made by a forming tool to a depth of ¼ of the section with a width of ⅛" to ¼". Open joints shall be made with a separator plate, ⅛" to ¼" in width. Dummy joints in lieu of open joints will be permitted with use of curbing machine.
- D. Joint spacing shall be located as follows:
  - 1. Expansion joints: Every 100' on center; at end of corner radius; at driveway sections; as shown on Construction Drawings.
  - 2. Construction joints: As required during construction; at appurtenances

and structures through or abutting Work.

3. Dummy or open joints: Every 10' on center for curb and gutter and curbside; equal to width of sidewalk for sidewalk; as shown on Construction Drawings.

### 3.06 CURING

- A. Immediately upon completion of the finishing, concrete shall be moistened and kept moist for a minimum of 72 hours. In lieu of wetting, use of a membrane-curing compound, at the direction of the Engineer, will be permitted.

### 3.07 BACKFILLING

- A. After the concrete has set sufficiently, the areas behind the curb shall be backfilled to the required elevations and shall be thoroughly compacted in accordance with Section 02200 - Earthwork.

### 3.08 FIELD QUALITY CONTROL

#### A. Tolerances

1. All vertical surfaces shall not vary more than  $\frac{1}{4}$ " in 10' in the horizontal direction. Surface deviation shall not exceed  $\frac{1}{4}$ " when measured with a 16' straight edge.

#### B. Concrete Strength

1. The Geo-technical Engineer may take field samples for purposes of testing concrete strength. All substandard strength concrete shall be removed and replaced at Contractor's expense.

**END OF SECTION**

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## **DIVISION 3**



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## SECTION 03300

### CAST – IN – PLACE CONCRETE

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. Section Includes. Work to be completed under this section shall include all labor, equipment, plant and materials necessary to furnish and install all poured-in-place concrete, together with all miscellaneous and appurtenant items, as shown on the Construction Drawings and as specified herein.

##### 1.02 REFERENCES

- A. Except as modified or supplemented herein, all Work shall conform to the following standards, latest edition. Refer to standards for detailed requirements.
1. ACI 318 - Building Code Requirement for Reinforced Concrete
  2. ACI 301 - Specifications for Structural Concrete for Buildings
  3. ACI 350 – Code Requirements for Environmental Engineering Concrete Structures
  4. ACI 347 - Recommended Practice for Concrete Formwork
  5. ACI 305 - Recommended Practice for Hot Weather Concreting
  6. ACI 306 - Recommended Practice for Cold Weather Concreting
  7. Publication SP-2, ACI Manual for Concrete Inspection
  8. ASTM A 615 - Standard Specifications for Deformed and Plain Billet Steel Bars for Concrete Reinforcement.
  9. ASTM A 185 - Specifications for Welded Steel Fabric for Concrete Reinforcement
  10. ASTM C 618 - Standard Specification for Fly Ash and Raw or Calcined Natural Pozzolan fur use as a Mineral Admixture in Portland Cement Concrete.

##### 1.03 SUBMITTALS

- A. The following shall be submitted to and approved by the Engineer prior to beginning any concrete work.
1. Lab Design Mix. Prior to the start of Work, Contractor to submit a

statement of the proportions for the concrete mixture. Statement to include:

- a. Location & identification of aggregate source.
  - b. Batch quantities for one (1) cubic yard of concrete, including:
    - 1) Weight of fine aggregate in a saturated surface dry condition.
    - 2) Weight of coarse aggregate in a saturated surface dry condition.
    - 3) Weight or number of 94 pound bags of cement
    - 4) Weight or gallons of water.
    - 5) Amount and description (including manufacturer, specific product name, and number) of all admixtures.
  - c. Test results on trial batch concrete made from the proposed mix design, including:
    - 1) Cement factor in bags per cubic yard based on yield tests.
    - 2) Water-cement ratio.
    - 3) Percent of entrained air.
    - 4) Consistency in inches of slump.
    - 5) At least three 28-day compressive strength tests.
  - d. Brand, type and place of manufacture of cement.
  - e. Aggregate test results for grading, deleterious substances and physical properties using test procedures developed by ACI. Aggregate shall be free of substances that are deleteriously reactive with the alkali's in the cement in an amount sufficient to cause excessive expansion of the concrete. Acceptable aggregate shall be based on satisfactory evidence furnished by the Contractor that the aggregate is free from such materials. This evidence shall include service records of concrete of comparable properties under similar conditions of exposure and certified records of tests by a testing laboratory that meets the requirements of ASTM C 1077. Tests shall be made in accordance with ASTM C 1260.
    - 1) Prior to approval of mixture design, the Contractor shall submit written certification that the aggregate does not have a history of D-Cracking and that the aggregate is approved by a state Department of Transportation specifically addressing susceptibility to D-Cracking. If the aggregate is not approved by a state agency, the aggregates may be approved provided the aggregate is tested in accordance with ASTM C 666 and receives a durability factor of 95 percent or greater.
- B. Reinforcing Steel. Product data sheet and statement of manufacturer's compliance with applicable standards.
- C. Construction Joint Location. Where not indicated on the construction plans the contractor shall provide a plan indicating the proposed location of all construction joints in slabs and walls for all fluid containing tanks. The contractor shall refer to "Section 3.03 – Construction, control, and Expansion Joints" for a detailed description of joint placement and construction within structures. Construction

Joint submittals are not required for structures other than fluid containing tanks.

#### 1.04 RECORD OF THE WORK

- A. Contractor to keep a record of time, date and location of each concrete pour and submit these records to the Engineer.

#### 1.05 NOTICE OF INTENTION TO POUR

- A. Contractor shall notify the Engineer at least 48 hours before an intended cast-in-place concrete pour. No structural cast-in-place concrete shall be poured until all reinforcing, forms and foundation soils have been inspected by the Engineer.

#### 1.06 PROTECTION OF THE WORK

- A. Contractor to be responsible for protection of all Work prior to acceptance. In place concrete shall not be subjected to loadings or stress prematurely.

#### 1.07 STORAGE OF MATERIALS

- A. Cement and aggregate shall be stored in such a manner as to prevent deterioration or intrusion of foreign matter. Any material which has deteriorated or which has been damaged shall not be used for concrete.
- B. All reinforcing steel shall be stored in a dry location and protected from excessive accumulation of rust or scale.

### PART 2 – PRODUCTS

#### 2.01 MATERIALS

- A. Cement. All cement shall be Portland Cement Type II or V conforming to "Standard Specifications for Portland Cement" (ASTM C 150) or Type MS or HS conforming to "Standard Performance Specification for Hydraulic Cement" (ASTM C 1157). The same brand cement for all exposed cast-in-place concrete shall be used. Flyash conforming to ASTM C618 may be substituted for a portion of the cement; type and amount to be approved at time of mix design submittal.
- B. Stone Aggregate. Fine and course aggregate shall conform to "Specifications for Concrete Aggregates" (ASTM C33-61T). Fine aggregates shall be clean, hard, natural and free from all foreign matter. Course aggregate shall be sound, crushed rock or gravel, free from adherent coating, organic water or injurious amounts of flat or friable pieces.
- C. Water. Water used in mixing shall be potable, cleaned and free from deleterious amounts of oil, acids, alkalis and organic material.
- D. Admixtures. "Protex" as manufactured by Protex Industries, Inc. and conforming to Specifications of Air-Entraining Admixtures for Concrete (ASTM C260) is an

approved air-entraining admixture. Other admixtures for retarding or accelerating concrete may be used in strict accordance with manufacturer's recommendations and ASTM Specifications upon approval of the Engineer.

- E. Form Material. For unexposed concrete surfaces, forms may be undressed lumber free from excessive knots. For exposed surfaces, use wood or metal forms as required to give finish as specified.
- F. Reinforcing Steel. Reinforcing steel shall be deformed bars conforming to "Standard Specifications for Deformed and Plain Billet Steel Bars for Concrete Reinforcement" (ASTM A615) and shall be Grade 60.
- G. Waterstop. Waterstop shall be SikaSwell S-2 as manufactured by Sika Corporation or approved equal. Waterstop shall be bentonite-free.
- H. Epoxy Sealer for Construction Joints. Epoxy sealer shall be SikaGuard 62 as manufactured by Sika Corporation or approved equal.
- I. Fibermesh for secondary concrete. Fibermesh shall be Fibermesh 300 as manufactured by Propex Concrete Solutions.

### PART 3 – EXECUTION

#### 3.01 CONCRETE MIX

- A. Proportions. Concrete is to be proportioned according to laboratory designed mixes using the type of aggregate, maximum water/cement (W/C) ratio, maximum aggregate size, minimum of twenty-eight (28) day ultimate compressive strength, and entrained air as follows:

Mix No.	Location	W/C Ratio	Aggregate (Size No.)	Strength (psi)	Entrained Air (%)
1	Walls, Footings, Structural Slabs	0.53	67	4000	NR
2	Basins	0.45	67	4000	4.5 to 7.5
3	Curb, Gutter, Flatwork	0.42	67	4500	4.5 to 7.5
4	Interior Flatwork	0.53	67	3500	NR

- B. Air Entrainment. An air-entraining agent shall be added to all stone concrete so as to entrain 5%-7% by volume. Air-entraining agents shall be in strict accordance with the recommendations of the manufacturer and the testing laboratory for the design mix to assure strength requirements are being fully met or exceeded.
- C. Mixing of Materials. The concrete shall be mixed until there is a uniform distribution of the materials and shall be discharged completely before the mixer

is recharged. For job-mixed concrete, the mixer shall be rotated at the speed recommended by the manufacturer.

1. For stone concrete, mixing shall continue for at least one minute after all materials are in the mixer. Ready mixed concrete shall be mixed and delivered in accordance with "Standard Specifications for Ready Mixed Concrete" (ASTM C94-69).
  2. Sufficient time shall be allowed for proper mixing of the concrete to provide uniformity throughout the batch. Long delays in concrete placement shall be avoided and any concrete that has not been placed within 90 minutes after water has been added to the mix shall be rejected. The 90 minute time limit may be extended to 120 minutes if no water is added after 90 minutes and the concrete temperature prior to placement is less than 90 F. Over wet mixes shall be rejected and shall not be corrected by the addition of either aggregate or cement to the mixer. Mix not less than ten minutes in transit mix trucks after addition of the mixing water.
- D. Consistency. Slumps shall be minimum, consistent with placing requirements. Slump test shall be made in accordance with "Slump Test for Consistency of Portland Cement Concrete" (ASTM C143-58). Unless written approval is obtained from the Engineer, the maximum slump shall be four (4") inches.

### 3.02 CONCRETE FORMS

- A. Forms shall conform to the shape, lines, grades and dimensions of the concrete as detailed on the Construction Drawings. All forms for exposed finished surfaces shall be built with the material needed to produce the form, texture and design specified in Concrete Finishes of this section.
- B. Design of Forms. Forms shall be sufficiently tight to prevent leakage of mortar and shall be properly braced or tied together so as to maintain the desired position. The formwork shall be designed for the loads outlined in Part 3, Section 102 of "Recommended Practice for Concrete Form Work" (ACI 347). The forms shall be oiled for ease of removal of forms after setting of concrete.
- C. Form Ties and Incidentals. All form ties shall be bolts and rods (adjustable for tightening) arranged so that no metal is within 3/4" of surface after removal of forms. No ties through exposed concrete will be allowed. Ties for water/wastewater structures (tanks, basins, channels etc.) shall be furnished with water resistant washers and cones, as manufactured by SYMONS, or approved equal. Ordinary wire ties will be allowed on building foundations with the specific approval of the Engineer. Set forms for all required anchors, bolt inserts, slots, sleeves, supports, etc., furnished under portions of this Specification and installed under this section.
- D. Removal of Forms. Forms shall not be disturbed until concrete has hardened sufficiently to permit their removal with safety. The removal of the forms shall be carried out in such a manner as to insure the safety of the structure. Unless

otherwise permitted by the Engineer, forms shall not be removed until 24 hours after pouring.

### 3.03 CONSTRUCTION, CONTROL, AND EXPANSION JOINTS

Expansion, construction, and control joints shall be constructed in accordance with the construction drawings, and the specifications found in this section.

- A. Expansion joints - Unless otherwise indicated on the construction drawings, install one-half inch (½”) thick asphalt impregnated fiberboard expansion joint filler (ASTM D1751) wherever concrete slabs abut buildings or footings or as shown on the plan details. All expansion joint filler shall extend full depth of the slab.
- B. Control joints – control joints shall be placed in all non-fluid containing slabs-on-grade, and shall not be spaced more than 20 feet on center, or forming an area greater than 400 sq.ft. Control joints shall be sawn or trowel cut into concrete slab a maximum of 12 hours after the concrete has been placed.
- C. Construction joints – construction joints shall be constructed in accordance with the construction drawings and placed at a maximum spacing provided in the following table:

1.	Fluid filled Tank - Walls	50 ft on-center maximum parallel spacing
2.	Fluid filled Tank - Slabs	50 ft on-center maximum parallel spacing
3.	Non-fluid containing structures - Walls	50 ft on-center maximum parallel spacing
4.	Non-fluid containing structures - Slabs	Construction joints shall be spaced in accordance to the latest ACI & IBC codes. Re: section 3.03, part B – Control joints.

### 3.04 CONCRETE PLACEMENT

- A. Preparation for Placing. Before placing concrete, all equipment for mixing and transporting concrete shall be cleaned and all debris and ice shall be removed from places to be occupied by concrete. Forms shall be properly treated and all reinforcement cleaned of ice and other coatings. Water shall be removed from place of deposit before concrete is placed.
- B. Conveying. Concrete shall be conveyed from the mixer to the place of final deposit by methods, which will prevent the separation or loss of the materials. Equipment for chuting, pumping, or pneumatically conveying concrete shall be of such size and design as to ensure a practically continuous flow of concrete at the

delivery and without separation of the materials.

- C. Other Trades. Install by way of example, anchor bolts, reinforcing steel, pipe and conduit openings and sleeves, bearing plates, and knockouts as provided by other trades and as required by other trades. Provide minimum 7 days notice to Engineer, Owner, or other trades prior to requiring materials or detailing information. Installation to meet location, dimension and alignment requirements of other trades.
- D. Depositing. Concrete shall be deposited as nearly as practicable in its final position to avoid segregation due to re-handling or flowing. The concreting shall be carried on at such a rate that the concrete is at all times plastic and flows readily into the space between the bars. No concrete that has been partially hardened or been contaminated by foreign matter shall be deposited on the Work, nor shall re-tempered concrete be used. When concreting is once started, it shall be carried on as a continuous operation until the placing of the panel or section is completed. Place concrete in approximately horizontal layers avoiding displacement of reinforcement above fresh concrete and formation of seams and planes of weakness in sections. When construction joints are necessary, they shall be located as specified in this section under Construction Joints. For bonding fresh concrete, roughen and clean exposed surface and brush with neat cement grout. Place new concrete before grout takes initial set.
- E. Compaction. Place concrete in layers not over 24" deep; compact each layer by mechanical internal vibrating equipment supplemented by hand spading, rodding, tamping, as directed. Vibrators shall not be used to transport concrete inside forms. Limit vibration duration to the time necessary to produce satisfactory consolidation without causing objectionable segregation. Do not insert vibrator into lower courses that have begun to set.
- F. Weather Conditions. Unless adequate protection is provided and the Engineer's approval is obtained, concrete shall not be placed during rain, sleet, or snow. When the mean temperature falls below 40°F for 3 successive days, concreting shall conform to "Recommended Practice for Cold Weather Conditions: (ACI 306 R-78). Concrete placed in hot weather shall meet the standards of "Recommended Practice for Hot Weather Concreting (ACI 305R-77). Concrete is not to be placed under water. A suitable means shall be provided for lowering the water level below surfaces upon which concrete is to be placed. This may require excavating approximately 12 inches below the bottom of the concrete surface and refilling with gravel and compacting. The groundwater shall not be allowed to rise to the bottom of the concrete until 24 hours after the concrete has been completed. Water shall not be allowed to fall upon or run across the concrete during this period.
- G. Protection and Curing. Concrete protection and curing shall be in conformance with ACI 308-71. Immediately after placing or finishing, concrete surfaces not covered by forms shall be protected from loss of surface moisture. All concrete shall be kept in a moist condition for at least five (5) days after placement. Curing compounds may be used upon approval of the Engineer.

### 3.05 SLABS ON GRADE

- A. All slabs on grade shall be poured directly on prepared gravel sub grade where shown on the Construction Drawings. Construction joints shall be placed such that no section of slab is greater than 20 feet on a side. Finishes, Expansion & Control Joints & Protection shall be as specified under other sections of this section.
- B. Minimum four-inch (4") of screened crushed rock shall be installed under the entire slab unless otherwise directed by the Engineer. The grading requirements as per Section 02222 for the aggregate course shall apply.

### 3.06 CONCRETE FINISHES

- A. Patching. Patching shall be done on all concrete surfaces immediately after stripping forms; all exposed surfaces shall have fins and other projections carefully removed, offsets leveled, and voids saturated with water and patched to a true and even surface with a wood float. Patch all holes left by the removal of the form ties or bolts. Patching material shall be a stiff mixture of sand and cement, the color of which matches the concrete being patched. Any major area of faulty or honeycombed concrete shall be completely removed and patched at the direction of the Engineer. For water/wastewater structures (tanks, basins, etc.), surface voids larger than ¼" diameter shall be patched.
- B. Floor slabs. All concrete slabs shall be screened to levels or grades indicated and float finished monolithically completely free from humps or pits. Slabs shall not show surface deviation in excess of one-quarter inch (1/4") when tested with a 10 ft. straightedge. Before the finish has set, the surface cement film shall be removed with a fine brush in order to have a fine-grained, smooth but sanded texture.
- C. Rubbed finish. All exposed concrete surfaces for water/wastewater structures (tanks, basins, etc.), shall have a rubbed finish. After removal of forms, rubbing of all exterior surfaces shall be started as soon as its condition will permit. Immediately before starting this Work, the concrete shall be kept thoroughly saturated with water. Sufficient time shall have elapsed before the wetting down to allow the mortar used in the pointing to thoroughly set. Surfaces to be finished shall be rubbed with a medium course carborundum stone, using a small amount of mortar on its face. The mortar shall be composed of cement and fine sand mixed in the same proportions as the concrete being finished. Rubbing shall be continued until all form marks, projections and irregularities have been removed, all voids filled and a uniform surface has been obtained. The paste produced by this rubbing shall be left in place.
- D. After all concrete above the surface being treated has been cast; the final finish shall be obtained by rubbing with a fine carborundum stone and water. This rubbing shall be continued until the entire surface is of a smooth texture and uniform color.

- E. After the final rubbing is completed and the surface has dried, it shall be rubbed with burlap to remove loose powder and objectionable marks.
- F. Chamfer. All exposed exterior corners shall receive 3/4" chamfer.

### 3.07 REINFORCING

- A. Placing Reinforcement. Reinforcing steel, at the time concrete is placed, shall be free from scale, rust or other coatings that will destroy or reduce bond. Reinforcement shall be accurately placed as shown on the Construction Drawings and shall be adequately secured in position by concrete or metal chairs and spacers.
- B. Reinforcing shall be furnished in the full lengths indicated on the Construction Drawings unless otherwise authorized by the Engineer. Splicing of bars, except where shown on the Construction Drawings or specified, shall not be permitted without written approval by the Engineer. Reinforcement placed in any member shall be inspected before any concrete is placed and the Engineer shall be notified 24 hours in advance before any concrete placement.
- C. The placing, fastening, splicing and supporting of reinforcing steel and welded wire fabric shall be in accordance with the Construction Drawings and the latest edition of the CRSI "Recommended Practice for Placing Reinforcing Bars" and in accordance with ACI 318-05. Bars shall be placed around all corners to splice steel in adjacent walls, footers and slabs (such detailing may not be shown on Construction Drawings).
- D. Concrete Protection & Reinforcement. Where not otherwise indicated on the Construction Drawings, the minimum thickness of concrete over the reinforcement shall be as follows:
  - 1. Concrete deposited against earth: 3"
  - 2. Slabs and walls not exposed to weather or earth: 1"
  - 3. All other concrete placed in forms:
    - a. For bars larger than #5: 2"
    - b. For bars #5 or smaller: 1½"
  - 4. Sanitary Structures: 2"
- E. Bearing Plates, anchor bolts, etc. Place all bearing plates, anchor bolts, reinforcing rods and other structural items furnished by other trades. Contractor to provide 7-day notice to all such trades prior to affected pour. Installation to be within tolerances required by other trades.
- F. All secondary concreting including but not limited to; clarifier hood bases, basin fillets, and UV channel concrete shall be concrete mix no. 2 with 3 pounds per cubic yard of Fibermesh 300.

### 3.08 FIELD QUALITY CONTROL

- A. Concrete Tests. 6" x 12" (or 4" x 8") cylinders shall be taken at the point of placing in the forms shall be job cured and tested in accordance with ASTM Standards by the Engineer. For each strength of concrete used, one set of four (4) cylinders for each day's pour, but not less than one (1) set of cylinders for each 50 cubic yards poured shall be taken. Two (2) cylinders at twenty-eight (28) days shall be tested to determine strength. One cylinder at seven (7) days and one cylinder at fifty six (56) days may be tested as indicators at the direction of the Engineer. In addition, when in the opinion of the Engineer there is a possibility of the surrounding air temperature falling below 40° F; additional specimens to be cured under job conditions may be required.
- B. Enforcement of Strength Requirements. Should the strengths shown by the test specimens fall below the specified values, the Engineer shall have the right to require changes in proportions to apply on the remainder of the Work.
- C. If concrete fails to meet the strength requirements of this specification, the Engineer may order the Contractor to have a testing laboratory, acceptable to the Engineer, take and test core samples of questionable concrete. The Engineer may order all low-strength concrete removed and replaced if core strengths are below specified strengths. All costs connected with concrete coring and removal and replacement of low-strength concrete shall be borne by the Contractor.
  - 1. Contractor shall repair all core holes at his expense.
- D. Slump Tests. Engineer to conduct slump tests on each day's pour and on individual trucks whenever concrete consistency varies. Test failure shall be grounds for rejection of individual or batch loads.
- E. Air Content. Engineer to conduct air tests on each day's pour and on individual trucks as determined by the Engineer. Test failure shall be grounds for rejection of entire batch until satisfactory tests are obtained.

### 3.09 CONCRETE REPAIR

- A. Concrete Repair. In the event there are leaks as determined by the testing program as specified on the drawings, Contractor shall make repairs as necessary to satisfy the requirements of the program. Acceptable products are Sika, type and installation methods as recommended by the manufacturer for the specific application. Product and method of installation as selected by the Contractor shall be submitted to the Engineer for approval.

**END OF SECTION**

## **DIVISION 4**



**SGM**  
**118 W. 6<sup>TH</sup> STREET, SUITE 200**  
**GLENWOOD SPRINGS, CO 81601**

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## SECTION 04200

### MASONRY

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. Work to be completed under this section shall include all labor, equipment, plant, and materials necessary to furnish and install all masonry units, together with all miscellaneous and appurtenant items required for installation and/or furnished by other trades, as shown on the Plans and as specified herein.

##### 1.02 REFERENCE STANDARDS

- A. ASTM C476 - Standard Specification for Mortar and Grout for Reinforced Masonry
- B. ASTM C404 - Standard Specification for Aggregates for Masonry Grout
- C. ASTM C144 - Standard Specification for Aggregates for Masonry Mortar
- D. ASTM C55 - Standard Specification for Concrete Building Brick
- E. International Masonry Industry, All-weather Council, "Recommended Practices and Guide Specification for Cold Weather Masonry Construction".

##### 1.03 SUBMITTALS

- A. Descriptive literature and catalogue cuts on masonry units, reinforcing steel and insulation.

##### 1.04 PROTECTION OF WORK

- A. Contractor responsible for protection of all work prior to acceptance. Exposed insulation or cells shall be covered to prevent moisture or dirt intrusion.

##### 1.05 STORAGE OF MATERIALS

- A. Materials shall be stored in a dry place and in a manner to prevent damage or intrusion of foreign matter. Materials showing evidence of water or other damage are subject to rejection.
- B. Concrete masonry units shall be protected against wetting prior to use. During freezing weather, all masonry units shall be protected with tarpaulin or other suitable material. Concrete masonry units shall be stored under covers that will permit circulation of air and prevent excessive moisture absorption.
- C. Cement, lime and air-settling mortars shall be stored in watertight sheds with

elevated floors.

- D. Reinforcement shall be protected from the elements; immediately before placing, reinforcement shall be free from loose rust, ice or other foreign coatings that will destroy or reduce the bond.
- E. Deliver packaged material in original manufacturer's containers.

## PART 2 – PRODUCTS

### 2.01 CONCRETE MASONRY UNITS (CMU)

- A. Units shall conform to ASTM C90 specifications. All units shall be Type I. Units below grade or exposed to weather shall be Grade N. Other units may be Grade S. Crushing strength, f'm = 1900 psi.
- B. Units shall be in modular sizes with standard 8" width or 4" width as required. Corner units shall have square external corners.
- C. Jamb units at windows, bond beam units and other special units shall match the approved samples for the type of construction and locations designated.
- D. Units shall not contain iron spots or other substances that will strain plaster or paint.

### 2.02 JOINT REINFORCEMENT

- A. Steel reinforcement for use in horizontal bed joints of concrete masonry units and other locations as hereinafter specified shall be prefabricated truss design type formed of zinc-coated cold drawn steel wire conforming to ASTM A82 and A116 of Class 3 coating. Side wire shall be formed of 9 gauge rod; cross rods shall be of 9 gauge, smooth or deformed wire, butt welded to side wires in the same plane at contact points. Special formed pieces shall be provided at corners and wall intersections.
- B. Reinforcing shall be of proper widths for the wall thicknesses shown.
- C. Reinforcing shall be Standard Type Dur-O-Wall, Rewal, or approved equal.
- D. Unless otherwise noted on the plans, reinforcement in masonry walls shall be installed in the first and second bed joints above lintels, below sill at openings and below bond beams around the entire top of the perimeter walls of the building. Elsewhere, reinforcing shall be installed in bed joints at 16" vertical intervals. Side rods shall be lapped horizontally a minimum of 6". Joint reinforcement embedded in horizontal mortar joints shall have not less than 5/8" mortar coverage from the exposed face.

## 2.03 REINFORCING STEEL

- A. Reinforcing steel shall be deformed bars conforming to "Standard Specifications for Deformed and Plain Billet Steel Bars for Concrete Reinforcement" (ASTM A615) and shall be Grade 60.

## 2.04 MORTAR AND GROUT

- A. Shall conform to the property requirements of ASTM C476. Proportion the mix to meet strength and other requirements. Mortar shall be Type S minimum grout compressive strength shall be 2000 psi.
- B. Pigmented Mortar: Use colored cement product or select and proportion pigments with other ingredients to produce color required. Do not add pigments to colored cement products.
  - 1. Pigments shall not exceed 10 percent of portland cement by weight.
  - 2. Pigments shall not exceed 5 percent of masonry cement by weight.
  - 3. Application: Use pigmented mortar for exposed mortar joints with the following units: Integral color CMUs.

## 2.05 PORTLAND CEMENT

- A. All cement shall be Portland Cement Type II or V conforming to "Standard Specifications for Portland Cement" (ASTM C 150).

## 2.06 INSULATION

- A. Loose fill insulation not permitted.
- B. Foamed-In-Place masonry insulation see Section 07214.

## 2.07 MASONRY CEMENT

- A. Cement shall conform to ASTM Specification C91. Cement shall be gray.

## 2.08 LIME

- A. Hydrated lime shall be Type S conforming to ASTM Specification C207. Quicklime shall conform to ASTM Specification C5; it shall be slaked in accordance with the manufacturer's directions.

## 2.09 LIME PUTTY

- A. Putty shall be a stiff mixture of lime and water. Keep putty moist until used. Putty made from quicklime shall be slaked and allowed to soak at least 24 hours before using. Putty made from Type S hydrated lime may be used immediately after mixing.

## 2.10 SAND

- A. Sand shall conform to ASTM Specification C144 except that sand for mortar in 1/4 inch wide joints shall pass a No. 16 sieve.

## 2.11 MIXING WATER

- A. Water shall be clean and potable.

## 2.12 COARSE AGGREGATE FOR MASONRY GROUT

- A. Aggregate shall conform to ASTM Specification C404.

## PART 3 – EXECUTION

### 3.01 MIXING MORTAR

- A. Mix all cementitious materials and sand in a mechanical batch mixer for a minimum of 5 minutes.
- B. Adjust the consistency of the mortar to the satisfaction of the mason, but add only as much water as is compatible with convenience in using the mortar.
- C. If the mortar begins to stiffen from evaporation or from absorption of a part of the mixing water, re-temper the mortar immediately by adding water and remix the mortar.
- D. All mortar shall be used within 2 1/2 hours of the initial mixing. It shall not be used after it has begun to set.

### 3.02 OTHER TRADES

- A. Other trades shall be consulted and provisions made such that the installation of their work is permitted in a manner to avoid butting and patching.
- B. Install, by way of example, anchor bolts, bearing plates, pipe and conduit openings and sleeves, HVAC openings and other knockouts required by other trades. Provide minimum 7-day notice to Owner, Engineer and other trades prior to requiring materials or detailing information.
- C. Build in work specified under other sections, as necessary and as the work progresses in accordance with requirements or other trades. Masonry contractor not responsible for installation of materials running within walls such as concealed conduit and piping.

### 3.03 LAYING MASONRY UNITS

- A. All units shall be set plumb and true to line. All units shall be laid with level horizontal joints. Units shall be laid in "running bond" unless otherwise shown.

- B. All interior masonry partitions unless otherwise shown shall terminate ½-inch from structural ceilings and a ½-inch thick by 8-inch wide expansion joint material installed thereon.
- C. Where electric conduit, outlet and switch boxes occur, units shall be ground and cut before building in service. Work shall be coordinated with electrical subcontractor. Cutting of all units exposed in finished work shall be done with an approved type of power saw. Work must also be coordinated with plumbing subcontractor where plumbing occurs in masonry partitions.
- D. Masonry units shall be reinforced horizontally with continuous joint reinforcement placed not to exceed 16" on center vertically in exterior walls and in non-load bearing partitions.
- E. Bond each course at corners in a masonry bond and at intersections with metal ties, anchors or joint reinforcement spaced as above.
- F. Partitions of all units that abut exterior walls, columns and other partitions shall be bonded in or be anchored thereto once every 16 inches in height. Where anchors are used they shall be 1/8 x 1-inch zinc coated steel anchors with ends turned up 2 inches and extending 4 inches into wall and not less than 8 inches onto partitions; or anchors may be of type to fit the slats in concrete.
- G. Interior joints of all masonry construction shall match existing. Exterior joints of all masonry construction shall be "concave".

### 3.04 SPECIAL REQUIREMENTS

- A. Masonry shall not be laid when the temperature of the outside air is below 40 degrees F, unless suitable means as approved by the Engineer are provided to heat materials, protect work from cold and frost and ensure that mortar will harden without freezing. (No anti-freeze ingredient shall be used in the mortar).
- B. The facing material shall be protected against staining and tops of walls kept covered with non-staining waterproof coverings when work is not in progress. When work is resumed, top surface of work shall be cleaned of all loose mortar and in drying weather thoroughly wet except for concrete masonry units.
- C. Where fresh masonry joins masonry that is partially set or totally set, clean the exposed surface of the set masonry and wet it lightly so as to obtain the best possible bond with the new work. Remove all loose brick and mortar. If it is necessary to "stop off" a horizontal run of masonry, this shall be permitted only with the Engineer's approval.
- D. All reinforced hollow unit masonry shall be built to preserve the unobstructed vertical continuity of the cells to be filled. Walls and webs forming such cells to be filled shall be full bedded in mortar to prevent leakage of grout. All head (or end) joints shall be solidly filled with mortar for a distance of the longitudinal face shells. Bond shall be provided by lapping units in successive vertical courses or by equivalent mechanical anchorage.

- E. Vertical cells to be filled shall have vertical alignment sufficient to maintain a clear, unobstructed continuous vertical cell measuring not less than 2 inches by 3 inches.
- F. All cells containing reinforcement shall be filled solidly with grout. Grout shall be poured in lifts of 8 feet maximum height. All grout shall be consolidated at time of pouring by puddling or vibrating and then reconsolidated by again puddling later, before plasticity is lost.
- G. When total grout pour exceeds 8 feet in height, the grout shall be placed in 4-foot lifts and special inspection during grout shall be required. Minimum cell dimension shall be 3 inches.
- H. When the grouting is stopped for one hour or longer, horizontal construction joints shall be formed by stopping the pour of grout 1½ -inches below the top of the uppermost unit.
- I. Steel in lintels shall be set in beds of mortar. Spaces around jambs and heads of metal door bucks and frames shall be filled solidly with mortar.
- J. Bond beams or concrete caps along the top of the walls shall be provided with the necessary and required bearing plates, anchor bolts, expansion joint filler, etc. and welds and connections of the pre-cast concrete components to the walls shall be made by the contractor under this section.
- K. All mortar smears and mortar chucks shall be cleaned from all exposed surfaces or surfaces to receive paint. Point all joints as directed by Engineer removing joint material sufficient to allow uniform joint after repair. Receive approval of finished wall.

**END OF SECTION**

**DIVISION 7**



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## SECTION 07214

### MASONRY WALL INSULATION

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. Extent of Foamed-In-Place masonry insulation for thermal, sound and fire resistance work is shown on drawings and indicated by provisions of this section.

##### 1.02 SUBMITTALS

- A. Product and technical presentation as provided by the manufacturer.
- B. Certified Test Reports: With product data, submit copies of certified test reports showing compliance with specified performance values, including R-values, fire performance and sound abatement characteristics.
- C. Material Safety Data Sheet: Submit Material Safety Data Sheet complying with OSHA Hazard Communication Standard, 29 CFR 1910 1200.

##### 1.03 QUALITY ASSURANCE

- A. Manufacturing Standards: Provide insulation produced by a single and approved manufacturer. The product must come from the manufacturer pre-mixed to ensure consistency.
- B. Installer Qualifications for Foamed-In-Place Masonry Insulation: Engage an experienced dealer/applicator who has been trained and licensed by the product manufacturer and which has not less than three years direct experience in the installation of the product used.
- C. Warranty: Upon request, a one year product and installation warranty will be issued by both the manufacturer and installer.
- D. Fire Performance Characteristics: Provide insulation materials which are identical to those whose fire performance characteristics, as listed for each material or assembly of which insulation is a part, have been determined by testing by a testing agency acceptable to authorities having jurisdiction.

#### PART 2 – PRODUCTS

##### 2.01 MANUFACTURERS

- A. Manufacturers of Foamed-In-Place Masonry Insulation: Subject to compliance with requirements, provide products from the following:

1. "Core-Fill 500™"; Tailored Chemical Products.
  2. Core Foam Masonry Foam Insulation, cfiFOAM, Inc.
  3. PolyMaster R-501, Polymaster Insulating Foams.
  4. Tripolymer Foam Insulation, C.P. Chemical Company, Inc.
- B. Equivalent products of other manufactures will be acceptable with Engineer's approval.

## 2.02 INSULATING MATERIALS

- A. General: Provide insulating materials which comply with requirements indicated for materials, compliance with referenced standards, and other characteristics.
- B. Foamed-In-Place Masonry Insulation: Two component thermal insulation produced by combining a plastic resin and catalyst foaming agent surfactant which, when properly ratioed and mixed, together with compressed air produce a cold-setting foam insulation in the hollow cores of hollow unit masonry walls.
1. Fire-Resistance Ratings: Minimum four (4) hour fire resistance wall rating (ASTM E-119) for 8" and 12" concrete masonry units when used in standard two (2) hour rated CMUs.
  2. Surface Burning Characteristics: Maximum flame spread, smoke developed and fuel contributed of 0, 5 and 0 respectively.
  3. Combustion Characteristics: Must be noncombustible, Class A building material.
  4. Thermal Values: "R" Value of 4.91/inch @ 32 degrees F mean; ASTM C-177.
  5. Sound Abatement: Minimum Sound Transmission Class ("STC") rating of 53 and a minimum Outdoor Indoor Transmission Class ("OITC") rating of 44 for 8" wall assembly (ASTM E 90-90).

## PART 3 – EXECUTION

### 3.01 INSTALLATION

- A. General: Install foamed-in-place insulation from interior, or as specified, prior to installation of interior finish work and after all masonry and structural concrete work is in place; comply with manufacturer's instructions.

- B. Installation: Fill all open cells and voids in hollow concrete masonry walls where shown on drawings. The foam insulation shall be pressure injected through a series of 5/8" to 7/8" holes drilled into every vertical column of block cells (every 8" on center) beginning at an approximate height of four (4) feet from finished floor level. Repeat this procedure at an approximate height of ten (10) feet above the first horizontal row of holes (or as needed) until the void is completely filled. Patch holes with mortar and score to resemble existing surface.

**END OF SECTION**

## SECTION 07620

### SHEET METAL FLASHING AND TRIM

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. Section Includes:
  - 1. Formed roof drainage sheet metal fabrications:
    - a. TPO-Clad subfascia.
    - b. Coated steel fascia cap.

##### 1.02 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show installation layouts of sheet metal flashing and trim, including plans, elevations, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work.
  - 1. Include details for forming, joining, supporting, and securing sheet metal flashing and trim, including pattern of seams, termination points, fixed points, expansion joints, expansion-joint covers, edge conditions, special conditions, and connections to adjoining work.
- C. Samples: For each exposed product and for each finish specified.
- D. Maintenance data.
- E. Warranty: Sample of special warranty.

##### 1.03 QUALITY ASSURANCE

- A. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.
- B. Copper Sheet Metal Standard: Comply with CDA's "Copper in Architecture Handbook." Conform to dimensions and profiles shown unless more stringent requirements are indicated.
- C. Pre-installation Conference: Conduct conference at Project site.

##### 1.04 WARRANTY

- A. Special Warranty on Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal flashing and trim that

shows evidence of deterioration of factory-applied finishes within 20 years from date of Substantial Completion.

## PART 2 – PRODUCTS

### 2.01 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying a strippable, temporary protective film before shipping.
- B. Copper Sheet: ASTM B 370, cold-rolled copper sheet, H00 or H01 temper.
  - 1. Non-Patinated Exposed Finish: Mill.
- C. Exposed Coil-Coated Finishes:
  - 1. Two-Coat Fluoropolymer: AAMA 620. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat.
  - 2. Color: As selected by Architect from manufacturer's full range.
- D. TPO-Clad Metal:
  - 1. Color: White
  - 2. Surface: 0.020-thick membrane.
  - 3. Substrate: 0.028-inch, G-90, hot-dipped galvanized steel.
  - 4. Stevens EP-Clad Metal Flashing or approved equal.

### 2.02 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.
  - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
    - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating.
    - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.

2. Fasteners for Copper Sheet: Copper, hardware bronze or Series 300 stainless steel.
  3. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Hot-dip galvanized steel according to ASRTM 153A/153M or ASTM F2329 or Series 300 stainless steel.
- C. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant; low modulus; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- D. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.

### 2.03 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.
1. Obtain field measurements for accurate fit before shop fabrication.
  2. Form sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
  3. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces exposed to view.
- B. Sealed Joints: Form non-expansion but movable joints in metal to accommodate elastomeric sealant.
- C. Expansion Provisions: Where lapped expansion provisions cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with butyl sealant concealed within joints.
- D. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, non-corrosive metal.
- E. Seams: Fabricate nonmoving seams with flat-lock seams. Tin edges to be seamed, form seams, and solder.
- F. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use. Rivet joints where necessary for strength.

## 2.04 LOW-SLOPE ROOF SHEET METAL FABRICATIONS

A. Parapet Subfascia: Fabricate in minimum 96-inch-long, but not exceeding 10-foot-long, sections. Fabricate from the following materials:

1. Galvanized Steel: 0.028 inch (0.71 mm) with TPO coating on one side.

B. Fascia Cap: Fabricate in minimum 96-inch-long, but not exceeding 10-foot-long, sections. Fabricate from the following materials:

1. Copper: 20 oz./sq. ft., installed at Lift Station.

2. Coil-Coated Steel: 0.040 inch thick, at all other buildings.

## PART 3 – EXECUTION

### 3.01 INSTALLATION, GENERAL

A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement so that completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.

1. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
3. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
4. Install sealant tape where indicated.
5. Torch cutting of sheet metal flashing and trim is not permitted.

B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by SMACNA.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of [10 feet (3 m)] <Insert dimension> with no joints allowed within 24 inches (600 mm) of corner or intersection..

D. Fastener Sizes: Use fasteners of sizes that will penetrate [wood sheathing not less than 1-1/4 inches (32 mm) for nails and not less than 3/4 inch (19 mm) for

wood screws] [metal decking not less than recommended by fastener manufacturer to achieve maximum pull-out resistance].

- E. Seal joints as shown and as required for watertight construction.

### 3.02 ROOF FLASHING INSTALLATION

- A. General: Install sheet metal flashing and trim to comply with performance requirements[, sheet metal manufacturer's written installation instructions,] and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, set units true to line, and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
- B. Subfascia: Anchor to resist uplift and outward forces according to recommendations in SMACNA's "Architectural Sheet Metal Manual" and as indicated.
- C. Fascia cap: Hook bottom of fascia cap to lower projecting edge of subfascia. Crimp top of fascia cap to upstanding leg of subfascia.

### 3.03 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

**END OF SECTION**

## SECTION 07920

### SEALANTS AND CAULKING

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. The Contractor shall furnish and install all caulking, sealing, moisture protection, and appurtenant work, complete, in accordance with the requirements of the Contract Documents.

##### 1.02 REFERENCES

- A. Federal Specifications:
  - 1. TT-S-001543A – Sealing Compound, Silicone Rubber Base, (For Caulking, Sealing and Glazing in Buildings and Other Structures),
  - 2. TT-S-0023OC(2) – Sealing Compound, Elastomeric Type, Single Component, (For Caulking, Sealing, and Glazing in Buildings and Other Structures).
- B. Commercial Standards:
  - 1. ASTM D 41 – Specification for Asphalt Primer Used in Roofing and Waterproofing.
  - 2. ASTM D 226 – Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
  - 3. ASTM D 312 – Specification for Asphalt Used in Roofing.
- C. Manufacturer's Standards In addition to the standards listed above, the sealants and caulking products and their application shall be in accordance with the manufacturer's published recommendations and specifications.

##### 1.03 SUBMITTALS

- A. Samples: The Contractor shall submit to the Engineer for review, samples (including color samples) of all the caulking and sealant materials and other moisture protection materials proposed for use on the work. The samples shall be clearly marked with the manufacturer's name and product identification. Technical Data: The Contractor shall submit a complete materials list along with the manufacturer's technical data and literature, specifications, and installation instructions.
- B. Certificates: The Contractor shall provide (if requested by the Engineer) certificates from an independent testing laboratory approved by the Engineer,

certifying that the submitted materials meet all the requirements of the ASTM and Federal Specifications cited.

- C. Warranty: The Contractor shall furnish a copy of the manufacturer's warranty covering all sealing, caulking materials, and other moisture protection materials against defects in materials.

#### 1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Delivery of Materials: Manufactured materials shall be delivered in original, unbroken packages, containers or bundles bearing the name of the manufacturer.
- B. Storage: All materials shall be carefully stored in a manner that will prevent damage and in an area that is protected from the elements.

### PART 2 – PRODUCTS

#### 2.01 SEALANTS AND CAULKING MATERIALS

- A. Manufacturers:
  - 1. Tremco.
  - 2. Sikaflex.
  - 3. Dow-Corning Corporation.
  - 4. 3M.
  - 5. Approved equal.
- B. Compatibility: Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under service and application conditions.
- C. Sealant for exterior and/or interior use shall be 2-part polyurethane, gun grade, as manufactured by Tremco "Dymeric Plus" Products Research Corp. "210"; Progress Unlimited "Iso-Flex 2000" or equal.
- D. Sealant for interior use may be 1-part acrylic terpolymer sealant, as manufactured by Tremco "Mono"; Dap "One-Part Acrylic", or equal.
  - 1. The sealants used with aluminum doors, windows and frames shall be silicone sealant conforming to Federal Specification TT-S-001543A (Class A) and 0023OC(2) (Type II, Class A).

2. Sealants for use in Interior Joints in Ceramic Tile and Other Hard Surfaces in Kitchens and Toilet Rooms and Around Plumbing Fixtures shall be single component, mildew-resistant silicone sealant, ASTM C920, Type S; Grade NS; Class 25; Uses NT, G, A, and O; formulated with fungicide.
3. Fire-resistant penetration sealant shall be a medium density fire-resistant foam that retains form and stability at high temperature and meets UL test requirement for fire rating required at location used. Fire-resistant sealant shall be Dow-Corning Corporation's "3-6548 Silicone RTV" foam; 3M Corporation's "Fire Barrier Caulk CP 25" and "Putty Corporation's "Fire Barrier Caulk CP 25" and "Putty 303"; or equal.
4. Caulking tapes shall be of the butyl-base, vulcanized type.
5. Filler material shall be resilient, closed-cell polyethylene foam and/or bond breakers of proper size for joint widths. It shall be compatible with sealant manufacturer's product.
6. Primers shall be as recommended in the manufacturer's printed instructions for caulking and sealants.
7. Cleaning and cleanup solvents shall be recommended in the manufacturer's printed instructions for caulking and sealants.

## 2.02 EXPANSION AND RELATED CONTROL JOINT FILLERS

- A. Manufacturers:
  1. Tremco.
  2. Prawax.
  3. Sikaflex.
  4. Sonneborn.
  5. Approved equal.
- B. The Contractor shall furnish all the materials for expansion joints and fillers, and control joints and seals in all concrete floor slabs and masonry walls as indicated on the Drawings.
- C. Both types of Joints (expansion and control) shall be sealed with a two-part epoxy joint sealant, Para-Caulk 2405 by Prawax Company or similar by Tremco, in accordance with the manufacturer's recommendations. Other acceptable products are Sonneborn NP1 or SL1 and Sikaflex 1A or 1C.

## 2.03 PREFORMED EXPANDING FOAM SEALANT

### A. Manufacturers:

1. Emseal U.S.A., Inc.
2. Sonneborn.
3. Bay Industries.
4. Approved equal.

- B. The Contractor shall furnish at all expansion and control joints in masonry walls impregnated preformed compressible sealant which is a combination of polyurethane foam impregnated with polymer modified asphalt or acrylics with stabilizing agent supply material pre-compressed in shrink-wrapped lengths, or in tape form with adhesive backing on reels. Pre-compressed material shall always be less than joint size, to allow placing in joint and then expanding to seal the joint. Material shall be Emseal or Emseal Greyflex. Emseal is black in color and Emseal Greyflex is grey in color; submit samples to Engineer for approval. Other acceptable products are Sonneborn Sonolastic Closed Cell Backer Rod and Bay Industries Denver Foam.

## PART 3 – EXECUTION

### 3.01 INSTALLATION

- A. Manufacturer's Recommendations: All work under this Section and all testing, where applicable, shall be performed in accordance with manufacturer's printed recommendations, specifications, and installation instructions except where more stringent requirements are specified or shown herein; and, except where project conditions require extra precautions or provisions to assure performance of the waterproofing system.
- B. Authorized Installers: Caulking, sealants, and moisture protection shall be complete systems, and installed only by installers authorized and approved by the respective manufacturers.

### 3.02 SEALANT FILLED JOINTS

- A. Surface Preparation: Joints and spaces to be sealed shall be clean, dry, and free of dust, loose mortar, and other foreign materials. Ferrous metal surfaces shall be cleaned of all rust, mill scale, and other coatings by wire brush, grinding, or sandblasting. Oil and grease shall be removed by cleaning in accordance with sealant manufacturer's printed recommendations. Protective coatings shall be removed from all aluminum surfaces against which caulking or sealing compound is to be placed. Bituminous or resinous materials shall be removed from surfaces to receive caulking or sealants.

- B. Sealant Depth: Sealant depth in joints shall be 1/2 the width of joint, but not less than 1/8" deep and 1/4" wide nor more than 1/2" deep and 1" wide. All joints have a rigid filler material installed to proper depth prior to application of sealant.
- C. Joints In Porous Materials: Where required by the manufacturer, sides of joints of porous materials shall be primed immediately prior to caulking or sealing.
- D. Applications: A full bead of sealant shall be applied into the joint under sufficient pressure, with the nozzle drawn across sealant, to completely fill the void space and to ensure complete wetting of contact area to obtain uniform adhesion. During application, the tip of the nozzle shall be kept at the bottom of the joint, thereby forcing the sealant to fill the bottom to the top. Sealants shall be tooled immediately after exposure with caulking tool or soft bristled brush moistened with solvent. The finished sealant filled joint shall be slightly concave unless otherwise shown.
- E. Cleaning: After application of sealant and caulking materials which have been soiled shall be cleaned and left in a neat, clean, undamaged or unstained condition. On porous surfaces, excess sealant shall be removed per sealant or caulking manufacturer's printed instructions.

### 3.03 PREFORMED EXPANDING FOAM SEALANT

- A. The Contractor shall install preformed foam sealant in vertical control joints in exterior masonry walls (mean joint size 3/8" to 1/2") using Emseal Greyflex; joint shall be watertight requiring foam sealant compressed to 20% of original uncompressed dimension.
- B. Install preformed foam sealant in joints at all locations where shown on Drawings or specified herein, for buildings erected under this contract. Use Emseal, joints shall require foam sealant compressed to 25% of original uncompressed dimension.
- C. See details on Drawings for additional information regarding joint locations, dimensions, and use of other sealant when preformed foam sealant is to be used as a backup material.
- D. Follow manufacturer's instruction for cleaning of joints, joint preparation, depth dimension of seal related to mean joint width, and general installation procedures.

### 3.04 EXPANSION AND RELATED CONTROL JOINT FILLERS

- A. The filler for the expansion joint shall be placed so that ends are tightly butted and so that the top of filler is level with the top of the concrete slab. Fillers shall be firmly anchored to avoid displacement. Joints, not completed filled with filler material and those with displaced or faulty fillers, shall be redone by the Contractor, subject to final approval by the Engineer. In no case shall concrete bridge the gap of the expansion joint space. The joint shall be sealed.

- B. Control joints (1/8-inch wide) shall be cut with a power carborundum circular saw in concrete slab locations as indicated on the Drawings; such joints (with fillers) as close to vertical surfaces as possible, so each resulting area of concrete surface is isolated from all other areas. Immediately before sealing, the control joints shall be cleared of dust and debris with compressed air. Control joints in floors shall be filled and sealed to completely fill the joints. Excess sealant shall be removed from all adjacent floor and other surfaces. Top of seal shall be level with top of concrete floor surface.

**END OF SECTION**

## **APPENDIX A**



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**STRUCTURAL NOTES**

Building Code: International Building Code, 2006 Edition as adopted by City of Craig.

**LOADS**

Dead  
Roof 15 psf (Top Chord)  
Collateral (process piping, misc. equipment) 20 psf (Bottom Chord)

Live  
Roof (snow) 40 psf

Wind Design Data  
Basic Wind Speed: 90 mph/3 sec gust  
Iw = 1.15  
Wind Exposure: C

Earthquake Design Data  
Ie = 1.0  
Occupancy Classification: Category II  
Seismic Design Category: B  
Site Class: D  
Basic Seismic-force-resisting system: Ordinary reinforced masonry/concrete shear walls

**REINFORCED CONCRETE:**

- A. All structural concrete had been designed in accordance with ACI 318-05. All structural concrete construction work shall conform to ACI 301-05 (or latest edition) unless noted otherwise.
- B. Cast in place concrete shall be made with Type II or V sulfate-resistant cement to maintain the following requirements, admixtures containing chloride salts shall not be used.
 

Element:	w/c Ratio:	Strength:	Entrained Air:
Walls, Footings, Structural Slabs	0.53	4000 psi	NR
Curb, Gutter, Flatwork	0.45	4500 psi	5 - 7%
Interior Flatwork	0.53	3500 psi	NR
- C. Concrete coverage for reinforcing steel shall provide the following:
  - Concrete poured permanently against earth: 3"
  - Concrete poured in forms (exposed to weather, fluid or earth): 2"
  - Concrete (not exposed to weather, fluid, or earth): 1 1/2"
- D. Concrete slabs on grade shall have sawn or trowel cut control joints at a maximum spacing of 15'-0" in each direction or 225 sq-ft within 12 hours of pouring.

**REINFORCING STEEL:**

- A. All reinforcement detailing, fabrication and placement shall conform to the ACI Details and Detailing of Reinforcement (ACI 315-05).
- B. All reinforcing shall be of high grade deformed bars conforming to ASTM A615, grade 60, except ties and anchors which shall conform to ASTM A615, grade 40 or ASTM A706, grade 60.
- C. Welded wire fabric shall conform to ASTM A185, grade 60 and be lapped a minimum of one full mesh plus two inches at side and end splices and be wired together.
- D. Lap splices of reinforcement, where permitted, shall be a minimum of 38 bar diameters for #6 bar and smaller and 47 bar diameters for #7 and larger bar, for Class A splice increase to 50 and 62 respectively for Class B lap splices unless noted otherwise. Contact engineer for splicing recommendations prior to construction where not specifically detailed or noted. Do not weld or use mechanical splicing.
- E. Continuous top bars shall be spliced at mid-span and continuous bottom bars over supports.
- F. At corners make bar continuous through discontinuity or provide corner bars. Corner bars to extend 3'-0" each side of corner. Place two #5's (per 8" of thickness) to extend a minimum of 2'-6" around all openings/steps in walls, slabs and beams. Provide #5 x 5'-0" diagonal at all openings/steps in walls, slabs and beams.
- G. Contractor shall place (2)-#5's vertically full height of wall at high side of all wall steps higher than 4'-0" in addition to wall reinforcing shown otherwise.
- H. Extend reinforcing steel a minimum of 2'-6" through cold joints and coordinate cold joint locations with structural engineer.

**STRUCTURAL MASONRY:**

- A. Masonry design assumptions require that Level 1 special inspection be provided during construction according to the provisions of the 2006 IBC Section 1704.5.
- B. Hollow load-bearing concrete masonry shall be lightweight units conforming to ASTM C90. Exterior walls and walls below grade shall be grade N-1. Interior walls not exposed to weather or earth may be grade N-1 or S-1. Unit strength F'm shall be 1900 psi.
- C. Mortar shall conform to ASTM C270 and shall be Type S with a minimum cube strength of 1800 psi. Do not use masonry cement or admixtures unless approved by the structural engineer.
- D. Grout shall be coarse grout with a minimum cube strength of 2000 psi. Admixtures shall not be used unless approved by structural engineer.
- E. Conform to size and height limitations set forth in Table 1.15.1 of ACI 530.
- F. Masonry walls, including site walls, shall have a continuous horizontal bond beam consisting of (2)-#5 bars and solid grout at the top of the wall, roof, or floor elevations and at 8'-0" maximum vertical spacing. Bond Beam units shall be produced from standard vertically voided units with pre-cut knock-out cross walls.
- G. All masonry shall be laid up in running bond with exposed joints tooled.
- H. Use continuous horizontal joint reinforcing in all masonry walls, consisting of 9 gauge steel wire welded to 9 gauge trussed cross wire. Width of joint reinforcing shall be approximately 2" less than width of wall. Provide prefabricated corners and tees. Wire shall conform to ASTM specification A-82. Maximum vertical spacing of joint reinforcing shall be 16" o.c.
- I. Provide 1/2" clearance or expansion material between masonry and other structural elements, unless noted otherwise.
- J. Vertical control joints shall be provided full height of masonry walls as located on the plans. Construct control joints as continuous head joints with mortar raked 3/4" at both faces and 50% of the horizontal joint reinforcing cut at the joint. Bond beam reinforcing and grout shall continue through the joint.
- K. Fill all voids and cells within 12" either side of centerline of beam and continuous to foundation, unless noted otherwise.
- L. Openings in masonry walls shall be reinforced with a #5 bar in a vertical grouted cells each side of opening up to 10'-0" wide. Openings greater than 10' wide shall have 2 vertical grouted cells w/ #5 reinforcement. Extend reinforcing and grout 2'-6" past opening on all sides.
- M. Masonry walls shall be grouted only at those unless containing reinforcing steel unless specifically authorized by structural engineer.

**GENERAL REQUIREMENTS:**

- A. Structural erection and bracing: The structural drawings illustrate the completed structure with all elements in their final positions supported and braced. The contractor, in the proper sequence, shall provide shoring and bracing as may be required during construction to achieve the final completed structure. Contact engineer for consultation (not in contract) as required.
- B. Shop drawings: Submit shop and erection drawings for all structural steel, structural steel, steel deck, masonry reinforcing steel to engineer to review prior to fabrication. This review is for general compliance with the intent of the structural design. The manufacturing or fabrication of any items prior to written review of the shop drawings will be at the risk of the contractor. The contractor is responsible for checking quantities, dimensions and coordination with other trades.
- C. Dimensions: Dimensions are to edge of framing or concrete, unless noted otherwise. Masonry dimensions are nominal. All dimensions on drawings shall be field verified. All discrepancies shall be brought to the attention of the Engineer and Owner prior to construction. Do not scale drawings.
- D. Construction practices: The general contractor is responsible for means, methods, techniques, sequences and procedures for construction of this project. Notify structural engineer of omissions or conflicts between the working drawings and existing conditions.
- E. Coordinate requirements for mechanical/electrical/plumbing penetrations through structural elements with structural engineer. Prior to installation of such equipment or other items to be attached to the structure, the contractor shall obtain approval for connections and support. Contractor shall furnish required hangers, connections, etc. required for installation of such items, unless specifically noted on plans.
- F. Jobsite safety is the sole responsibility of the contractor. All methods used for construction shall be in accordance with the 2006 IBC.
- G. The structural engineer may make periodic observation visits to the jobsite for determination of general conformance with the construction documents. Such observation visits shall not replace required inspections by the governing authorities or serve as "special inspections" as may be required by Section 17 of the International Building Code.
- H. Though every effort has been made to provide a complete and clear set of construction documents, discrepancies or omissions may occur. Release of these drawings anticipates cooperation and continued communication between the contractor, architect and engineer to provide the best possible structure. These drawings have been prepared for the use of a qualified contractor experienced in the construction techniques and systems depicted.

**WOOD TRUSSES:**

- A. Trusses shall be designed, fabricated, and erected in accordance with ANS/ITPI "National Design Standard for Metal-Plate-Connected Wood Truss Construction". Trusses shall be designed for loads specified. Ceiling hung mechanical units shall be supported by the bottom chord of roof trusses by threaded rods & Unistruts. Truss Calculations and Shop Drawings shall bear the stamp of a Colorado Registered Engineer. Load Duration Factor = 1.0.

**WOOD FRAMING AND SHEATHING:**

- A. All blocking and miscellaneous framing lumber shall be Hem-Fir, Grade 2 or better. Roof and wall sheathing shall be APA rated with thicknesses as shown on the structural drawings. All nailing shall be in accordance with the 2006 IBC.

**ABBREVIATIONS**

⊙	AT	ANCHOR BOLT	FDN	FOUNDATION	SO	SQUARE
A.B.	ABOVE FINISHED FLOOR	FRP	FINISHED FLOOR	SS	STAINLESS	STEEL
ARCH	ARCHITECT	FT	FIBER REINFORCED PANEL	STD	STANDARD	STEEL
B.	BOTTOM OF FOOTING	FTG	FOOTING	STL	STEEL	TOP OF
BF	BOTTOM OF FOOTING	H.A.S.	HEADED ANCHOR STUD	T&B	TYPICAL	UNLESS NOTED OTHERWISE
BLDG	BUILDING	HORIZ	HORIZONTAL	T.O.W.	TOP OF WALL	
BM	BEAM	HT	HEAVY TIMBER	TYP	TYPICAL	
BRG	BEARING	INT	INTERIOR	U.A.O.	UNLESS NOTED OTHERWISE	
BW	BOTTOM OF WALL	JT	JOINT	VERT	VERTICAL	
C.I.P.	CAST IN PLACE	MANUF	MANUFACTURER	V.I.F.	VERIFY IN FIELD	
CJ	CONTROL JOINT	MAX	MAXIMUM			
CLR	CLEAR	MIN	MINIMUM			
CMU	CONCRETE MASONRY UNIT	O.A.E.	OR APPROVED EQUAL			
CONT	CONTINUOUS	O.C.	ON CENTER			
(E)	EXISTING	O.H.	OVERHANG			
EA	EACH	PLY	PLYWOOD			
E.O.	EDGE OF	PT	PRESSURE TREATED			
E.S.	EACH SIDE	RE	REFERENCE			
EXP	EXPANSION	REINF	REINFORCE			
EXT	EXTERIOR	R.O.	ROUGH OPENING			
FD	FLOOR DRAIN	SF	SQUARE FEET			
		SIM	SIMILAR			

**SYMBOLS LEGEND**

△	REVISION MARK	□	BEAM POCKET
+	ELEVATION MARK	□	BEAM HANGING
⊕	SECTION CUT LABEL	□	BEAM BEARING
⊙	ELEVATION VIEW LABEL	□	BEARING JOIST OR RAFTER
○	GRID LINE	□	COLUMN ABOVE
		□	COLUMN
		□	TOP OF COLUMN
		□	WALL STEP
		□	FOOTING STEP
		□	PLYWOOD/SLAB STEP

**MATERIALS LEGEND**

▭	CAST IN PLACE CONCRETE
▭	CONCRETE MASONRY UNIT
▭	CLAY MASONRY / BRICK
▭	STEEL
▭	DIMENSIONED LUMBER
▭	BLOCKING
▭	PLYWOOD
▭	NATIVE SOIL
▭	COMPACTED SOIL
▭	GRAVEL

**PLUMBING FIXTURES & CONNECTION SCHEDULE**

UNIT TAG	MANUFACTURE & MODEL NUMBER	DESCRIPTIONS	LOCATION	FINISH	REMARKS
WC 1	ACORN 2110-T-2	FLOOR MOUNTED BACK OUTLET	WOMEN'S STALL	STAINLESS STEEL	STANDARD HEIGHT PROVIDE SLOAN REGAL 111XL FLUSH VALVE
WC 2	ACORN 2110-T-2	FLOOR MOUNTED BACK OUTLET	ADA STALLS EACH RESTROOM	STAINLESS STEEL	ADA COMPLIANT HEIGHT PROVIDE SLOAN REGAL 111XL FLUSH VALVE
UR 1	ACORN 1707-T-1-FV	WALL MOUNTED	MEN'S RESTROOM	STAINLESS STEEL	ADA COMPLIANT WHEN RIM IS MOUNTED NO HIGHER THAN 17" FROM FINISHED FLOOR. PROVIDE SLOAN REGAL 186 XL FLUSH VALVE
L 1	ACORN 1953	WALL HUNG, ADA COMPLIANT	RESTROOMS	STAINLESS STEEL	PROVIDE ADA COMPLIANT MOUNTING & 2529LF-HD FAUCET WITH GRID STAINERS IN CHROME FINISH
DF 1	ACORN 1672	DRINKING FOUNTAIN	EXTERIOR CENTERED BETWEEN DOORS	STAINLESS STEEL	PROVIDE ADA COMPLIANT MOUNTING
WH 1	EEMAX EMT4	4 GALLON ELECTRIC HEATER	MECHANICAL CLOSE	-	-

Preliminary  
Not For  
Construction



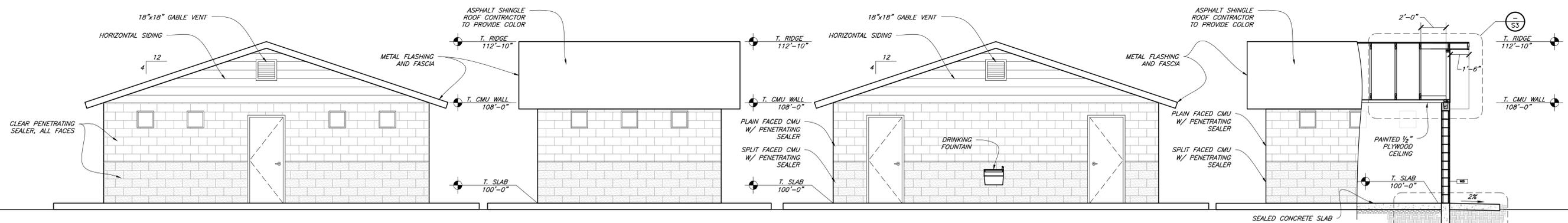
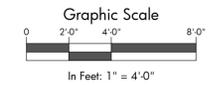
City of Craig  
Breeze Park Restroom

#	Revision	Date	By
A	REVIEW SET	08/26/16	JJP

General Notes

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Drawn by:	JJP
Date:	08/26/2016
QC:	XX
PE:	JEP
File:	Per488

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4

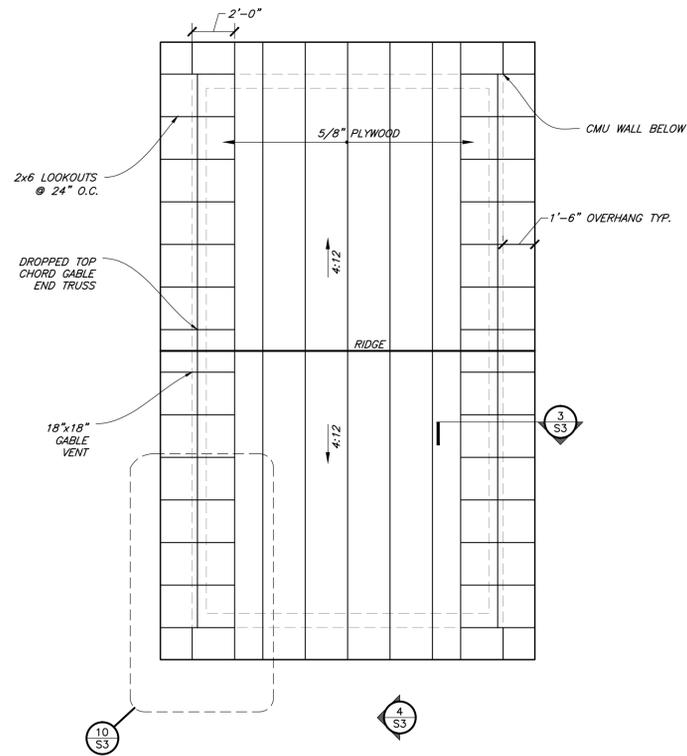


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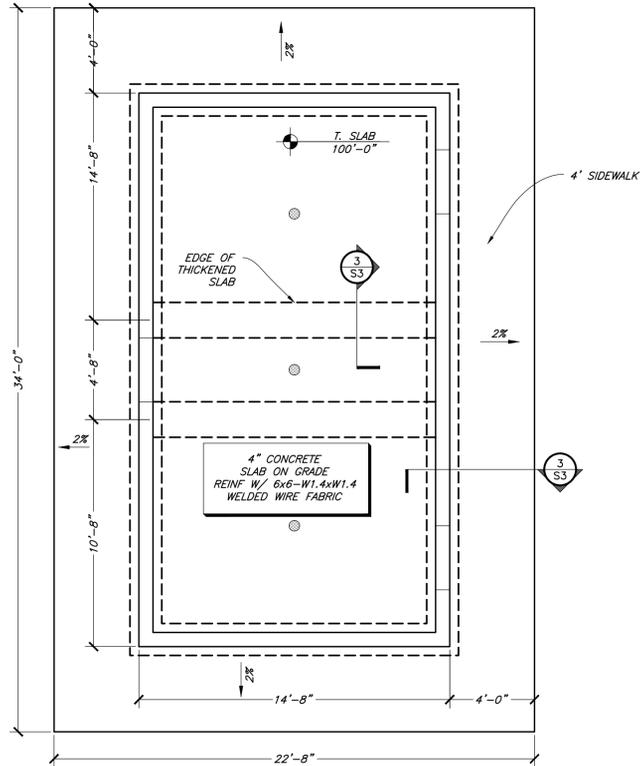
2 ELEVATION  
 S2 SCALE: 1/4" = 1'-0"

3 ELEVATION  
 S2 SCALE: 1/4" = 1'-0"

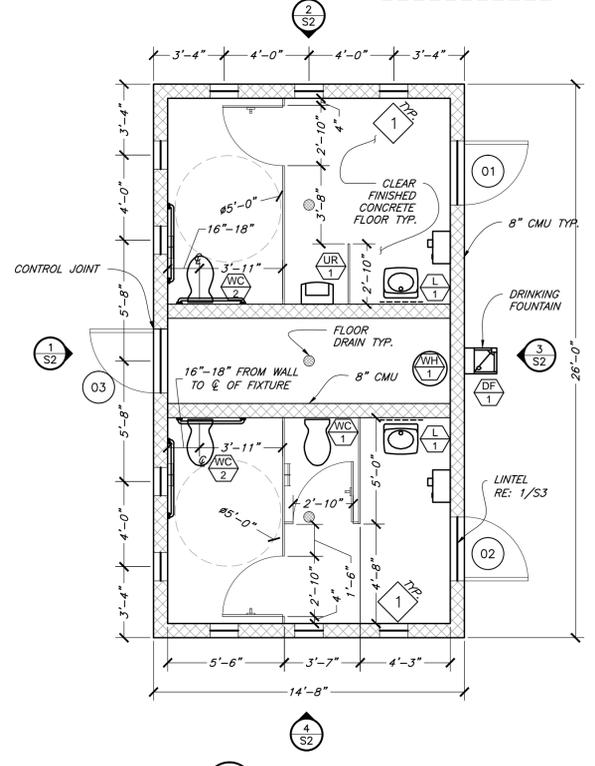
4 ELEVATION  
 S2 SCALE: 1/4" = 1'-0"



5 ROOF PLAN  
 S2 SCALE: 1/4" = 1'-0"



6 FOUNDATION PLAN  
 S2 SCALE: 1/4" = 1'-0"



7 FLOOR PLAN  
 S2 SCALE: 1/4" = 1'-0"

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**SGM**  
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 Glenwood Springs, CO 81601  
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City of Craig  
 Breeze Park Restroom

#	Revision	Date	By
A	REVIEW SET	08/26/16	JJP

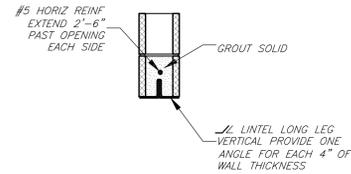
Plans

Job No.	2013-520.007
Drawn by:	JJP
Date:	08/26/2016
QC:	XX PE: JEP
File:	Par488

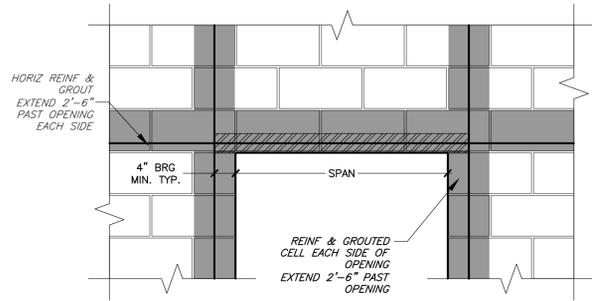
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**Loose Lintels:**

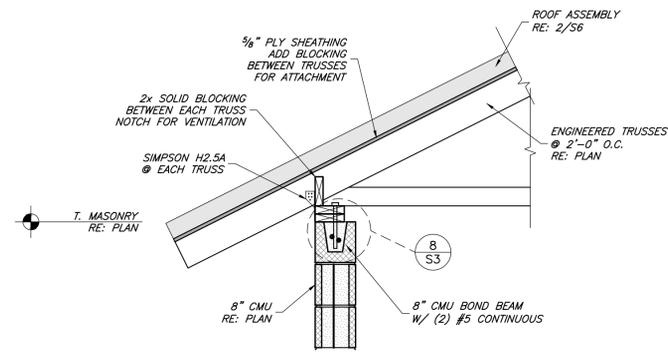
Unless noted otherwise, provide loose lintels as follows:  
 One angle for every 4" of wall thickness, to bear a minimum of 4" at each end:  
 Openings 4'-0" or less 3 1/2" x 3 1/2" x 1/4"  
 Openings 8'-1" to 10'-0" 6" x 3 1/2" x 3/8"  
 Orient lintel angles back-to-back with long legs vertical.



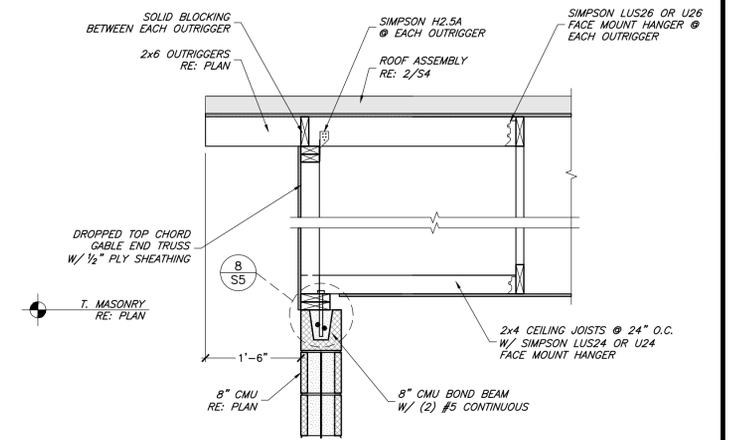
1 ANGLE LINTEL DETAIL  
S3



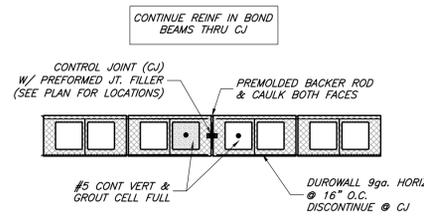
2 LINTEL DETAIL  
S3



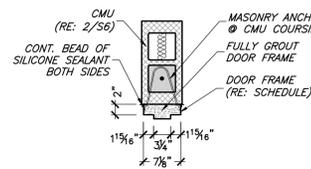
3 ROOF DETAIL  
SCALE: 3/4" = 1'-0"



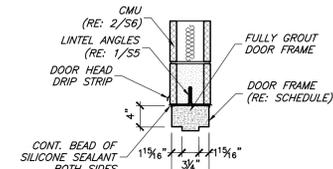
4 ROOF DETAIL  
SCALE: 3/4" = 1'-0"



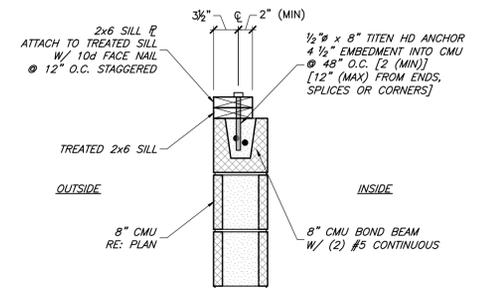
5 CONTROL JOINT DETAIL  
SCALE: 3/4" = 1'-0"



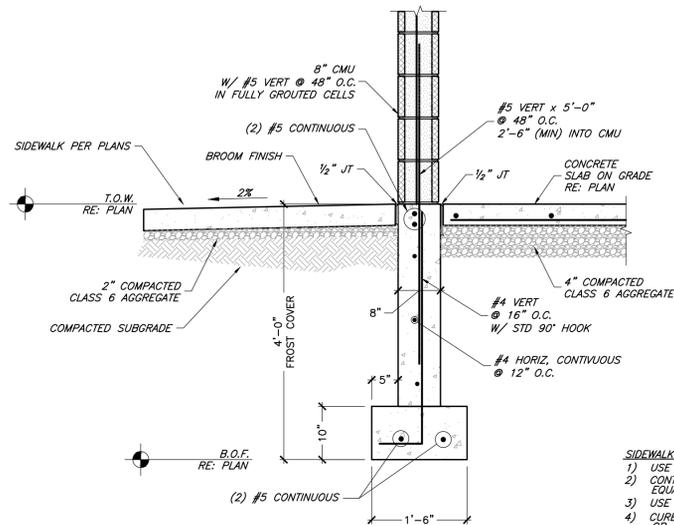
6 DOOR JAMB  
SCALE: 3/4" = 1'-0"



7 DOOR HEAD  
SCALE: 3/4" = 1'-0"

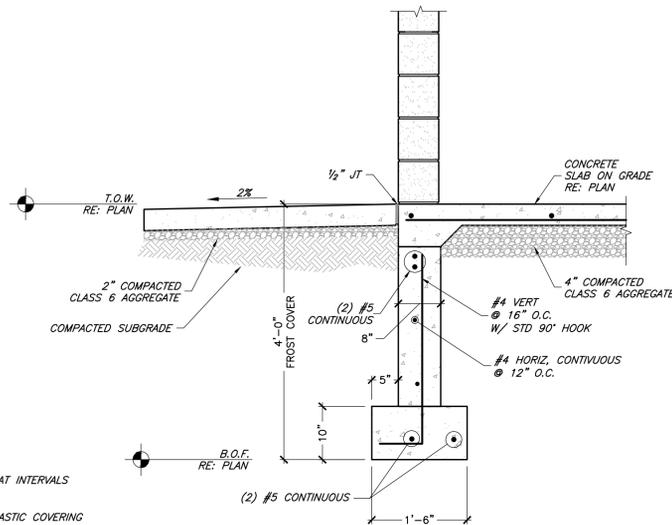


8 SILL DETAIL  
SCALE: 1" = 1'-0"

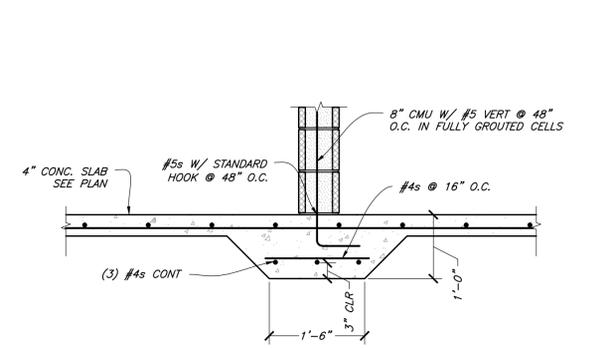


9 FOUNDATION DETAIL  
SCALE: 3/4" = 1'-0"

- SIDEWALK NOTES:**
- USE 4" DEPTH OF CONCRETE ON ALL SIDEWALKS.
  - CONTROL JOINTS: 1" DEEP BY 1/8" - 1/4" WIDTH AT INTERVALS EQUAL TO SIDEWALK WIDTH.
  - USE 1/4" RADIUS ON ALL EDGES.
  - CURE FOR 72 HOURS USING CURING COMPOUND, PLASTIC COVERING OR MOISTURE.
  - USE 4500 PSI CONCRETE WITH FIBERMESH ADDITIVE AT 1-1/2 LBS./C.Y. MAXIMUM SLUMP 4".



10 FOUNDATION DETAIL  
SCALE: 3/4" = 1'-0"



11 THICKENED SLAB DETAIL  
SCALE: 3/4" = 1'-0"

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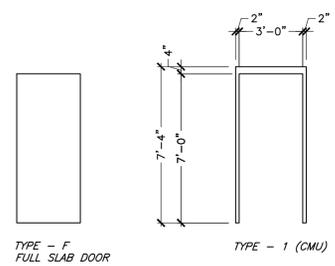
#	Revision	Date	By
A	REVIEW SET	08/26/16	JJP

Structural Details

Job No.	2013-520.007
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File:	Perk88

S3  
4

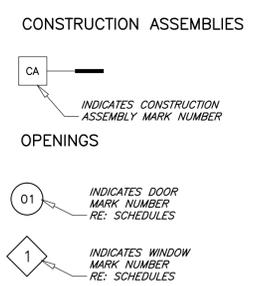
BUILDING	MARK	LOCATION		DOOR								FRAME				HARDWARE MATRIX														NOTES										
				NOMINAL SIZE			TYPE [RE: A]	MAT'L	CORE	FINISH	GLASS [RE: 1]	TYPE [RE: 1]	MAT'L	CORE	FINISH	FIRE RATING LABEL	BB HINGE	MORTISE LOCKSET-ENTRY F81	CYLINDRICAL LOCKSET-PASSAGE F75	CYLINDRICAL LOCKSET-PRIVACY F76	CLOSER-PUSH SIDE MOUNTING	CLOSER-PULL SIDE MOUNTING	LOCKING DEVICE	WALL MTD. STOP	OVERHEAD DOOR STOP	THRESHOLD	BRUSH SWEEP	JAMB WEATHERSTRIPPING/ACOUSTICAL SEALS	TOP/BOTTOM WEATHERSTRIPPING/ACOUSTICAL SEALS		DOOR HEAD DRIP STRIP	JAMB SILENCERS	KICKPLATE ON PUSH SIDE	PANIC BAR	LOCK GUARDS					
				FROM	TO	WIDTH																														HEIGHT	THK			
RESTROOM	1	RESTROOM	EXTERIOR	3'-0"	7'-0"	1 1/4"	HG	16ga CRS	INSULATED	PAINT	HL-1	1	16ga CRS	GROUT	PAINT	--	◆	◆		◆				◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆					
RESTROOM	2	RESTROOM	EXTERIOR	3'-0"	7'-0"	1 1/4"	HG	16ga CRS	INSULATED	PAINT	HL-1	1	16ga CRS	GROUT	PAINT	--	◆	◆		◆				◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆			
RESTROOM	3	STORAGE	EXTERIOR	3'-0"	7'-0"	1 1/4"	HG	16ga CRS	INSULATED	PAINT	HL-1	1	16ga CRS	GROUT	PAINT	--	◆	◆		◆				◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆			



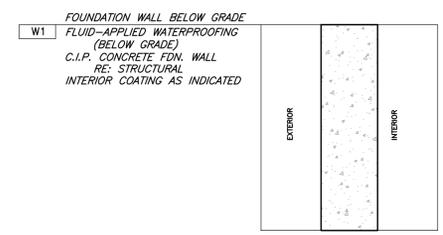
1 DOOR & FRAME TYPES  
S4

**ARCHITECTURAL NOTES**

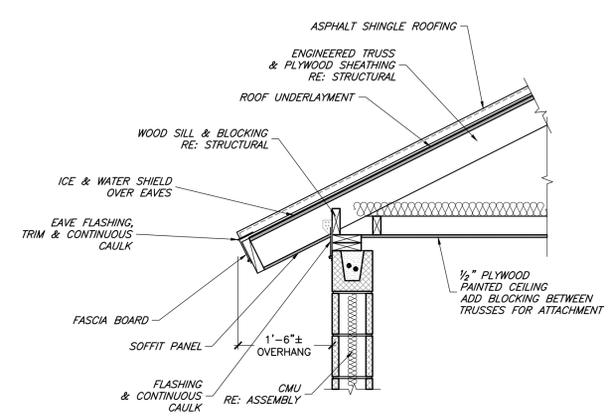
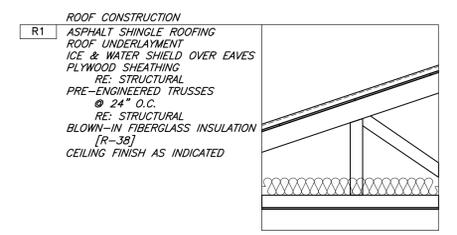
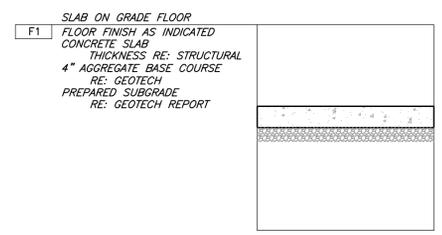
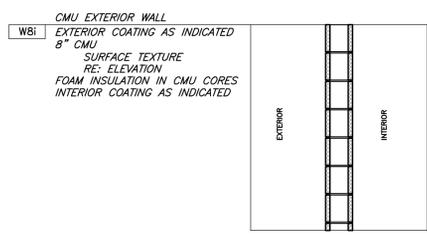
- Design and construction shall be in accordance with the requirements of the International Building Code, 2006 Edition (2006 IBC).
- Dimensions are to edge of framing or concrete, unless noted otherwise. Masonry dimensions are nominal unless noted otherwise. All discrepancies shall be brought to the attention of the Engineer and Owner prior to construction.
- It is the responsibility of the Contractor to coordinate construction with all equipment and utilities, and verify sizes and locations before construction.



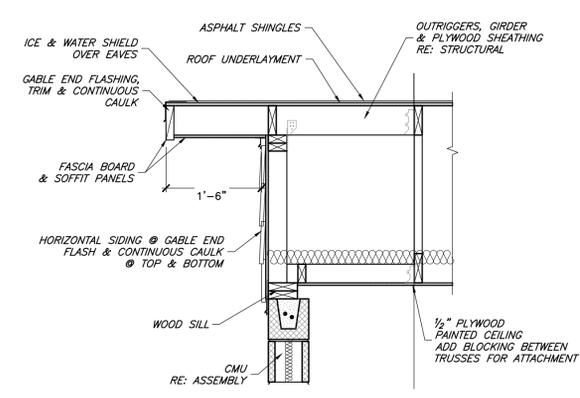
WINDOW SCHEDULE			
MARK	GLAZING (WXH)	TYPE	ELEVATION
1	1'-4" X 1'-4"	FIXED	1,3&4



2 ASSEMBLIES  
S4 SCALE: 1/2" = 1'-0"



3 ROOF DETAIL  
S4 SCALE: 3/4" = 1'-0"



4 ROOF DETAIL  
S4 SCALE: 3/4" = 1'-0"

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