

PROJECT MANUAL
for
JACKSON COUNTY FAIRGROUNDS
NEW EQUIPMENT STORAGE BLDG

ISSUED FOR BID

JANUARY 12, 2026

Volume 1 of 1

Owner:
Jackson County Board of Supervisors
P.O. Box 998
Pascagoula, MS 39568-0998



dean
STRUCTURAL ENGINEERS

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Gulfport, Mississippi, 39507
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ADVERTISEMENT FOR BIDS

Notice is hereby given that sealed bids will be received by the Board of Supervisors of Jackson County, Mississippi until 12:00 noon (CDT) on Tuesday, February 24, 2026 and said bids are to be opened and read aloud at 1:00 p.m. in the Board of Supervisors' Meeting Room located in the Jackson County Services Building, 2915 Carty Street, Pascagoula, MS 39567.

Envelopes containing the bid must be sealed, stamped, and received by 12:00 noon on Tuesday, February 24, 2026 addressed to Josh Eldridge, Clerk of the Board, c/o Purchasing Department, 2915 Carty Street, Suite D, Pascagoula, MS 39567 and designated as bids for the following items described, to wit:

JACKSON COUNTY FAIRGROUNDS NEW EQUIPMENT STORAGE BLDG PASCAGOULA, MISSISSIPPI

In accordance with the plans and specifications prepared by:

DEAN STRUCTURAL ENGINEERS, INC.
3506 WASHINGTON AVENUE, SUITE F
GULFPORT, MS 39507
(228) 284-5910

This project consists of furnishing all labor, materials and equipment to construct, complete and ready for utilization a new 2000 sq. ft. Pre-Engineered Metal Building (PEMB). The project scope includes, but is not limited to: Site Work, Foundation System, PEMB System, Electrical Work, and other items per the Construction Documents.

The total Contract Time will be 120 consecutive calendar days and the liquidated damages will be \$500 per consecutive calendar day thereafter.

The Jackson County Board of Supervisors hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises/woman business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

All bids shall be submitted in a sealed envelope addressed to the Chancery Clerk of Jackson County. If a bid is submitted by mail, the post office address of the Chancery Clerk is P.O. Box 998, Pascagoula, MS 39568-0998. Bids may be delivered to Joshua Eldridge, Chancery Clerk, c/o Purchasing Department, 2915 Carty Street, Suite D, Pascagoula, MS 39567.

All bid envelopes should contain the bidder's name and mailing address on the face of the envelope and also specify the name of the bid item.

Bidder's certificate of responsibility number or a statement that the bid inside is less

than \$50,000.00 shall appear on the outside or exterior of the envelope or container of such bids, failing which, said bid shall not be opened or considered.

Contractors have the option of submitting their bids sealed in an envelope or electronically through www.jacksoncoplans.com. When submitting an electronic bid, the bid must be submitted in "pdf" format and shall contain the same information and forms as required for the paper bids. Electronic bids must be secured with a bid bond. When submitting a bid electronically, the authorized signature shall be an electronic signature or handwritten in blue-ink. In the event that an electronically submitted bid has a corrupted attachment, the bid will be considered null and void. When bids are submitted electronically, the requirement for including a certificate of responsibility, or a statement that the bid enclosed does not exceed Fifty Thousand Dollars (\$50,000.00) on the exterior of the bid envelope shall be deemed in compliance by including the same information as an attachment with the electronic bid submittal.

For an electronic bid, documents can be viewed or downloaded from www.jacksoncoplans.com. Contractors will be required to register FREE with Plan House Printing at www.jacksoncoplans.com to submit an electronic bid. For any questions relating to the electronic submittal, please call Plan House Printing at 662-687-1209.

For sealed bids, a certified check payable to the order of Jackson County Board of Supervisors or a satisfactory Bid Bond executed by the bidder and an acceptable surety, must be submitted in an amount equal to five percent (5%) of the total bid.

All bids submitted in excess of \$50,000 by a prime or subcontractor to do any erection, building, construction, repair, maintenance, or related work, must comply with Section 31-3-21, Mississippi Code of 1972, by having a current Certificate of Responsibility from the State Board of Public Contractors. The current Certificate of Responsibility Number shall be indicated on the exterior of the sealed bid envelope before it can be opened.

Resident contractors shall, in accordance with laws of the State of Mississippi, be granted preference over non-residents in the award of the contract in the same manner and to the same extent as provided by the laws of the state of domicile of the non-resident. A non-resident contractor shall attach to his proposal a copy of this resident state's current law pertaining to such state's treatment of non-resident contractors. Any bid submitted by a nonresident contractor which does not include the nonresident contractor's current state law shall be rejected and not considered for award.

ALL BIDS SUBMITTED FOR \$50,000 OR LESS SHALL BE SO MARKED ON THE EXTERIOR OF THE SEALED BID ENVELOPE

A Non-Mandatory Pre-Bid Conference will be held at 10:30 AM on Tuesday, February 10, 2026, at the project site located at 2902 Shortcut Road, Pascagoula, MS 39567.

The Jackson County Board of Supervisors reserves the right to reject any and all bids received and to award said bid in the best interest of the County. Bids may be held for a period not to exceed ninety (90) days from the date of the opening of bids for the purpose

of reviewing the bids and investigating the qualifications of Bidders, prior to awarding of the Contract.

GIVEN UNDER MY HAND AND OFFICAL SEAL OF OFFICE, THIS THE TWENTIETH DAY OF JANUARY 2026.

By:

Josh Eldridge, Chancery Clerk
Board of Supervisors
P.O. Box 998
Pascagoula, MS 39568

Publish January 25, 2026 and February 1, 2026

SECTION 00200 - INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

- 1.01 Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.
- 1.02 The Project Manual is divided into parts, divisions, and sections in keeping with accepted industry practice to separate categories of subject matter for convenient reference thereto. Generally, there has been no attempt to divide the Specification sections into Work performed by the various building trades, Work by separate subcontractors, or Work required for separate facilities in the Project.
- 1.03 A general description of the Work to be done is contained in Section 01010 - Summary of Work. The Scope is indicated on the accompanying Drawings and specified in applicable parts of these Contract Documents.
 - A. Where the drawings are reduced in size from the original tracings, the amount of reduction is indicated by a note and/or bar on the drawings.

1.04 DEFINED TERMS

- A. Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

1. *Issuing Office* - The office from which the Bidding Documents are to be issued, and which registers plan holders.
2. *Command Type Sentences* – Type sentences are used in the Contract Documents. These refer to and are directed to the Contractor.
3. *Responsive Bidder* – Any person, firm or corporation submitting a bid for the work contemplated whose bid form is complete and regular, free of exclusions, special conditions or unbalanced unit prices and has no alternative bids for any item unless required in the technical specifications.
4. *Responsible Bidder* – Any person, firm or corporation submitting a bid for the work contemplated who maintains a permanent place of business, has adequate plant equipment to do the work properly and within the time limit that is established, and has adequate financial status to meet his obligations contingent to the work.

1.05 BIDDING DOCUMENTS

- A. Complete sets of the Bidding Documents may be obtained by visiting the website www.jacksoncoplans.com. Bid documents are non-refundable and must be purchased through the website. For questions regarding the website or online ordering, contact Plan House at (662) 687-1209.

- B. Bidder may register as a plan holder and obtain complete sets of Bidding Documents, in the number and format stated in the Advertisement or invitation to bid, from the Issuing Office. Bidders may rely that sets of Bidding Documents obtained from the Issuing Office are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- C. 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.
- D. Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

1.06 QUALIFICATIONS OF BIDDERS

- A. To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within **FIVE** days of Owner's request, Bidder must submit the following information:
 1. Written evidence establishing its qualifications such as financial data, previous experience, and present commitments.
 2. A written statement that Bidder is authorized to do business in the state where the Project is located, or a written certification that Bidder will obtain such authority prior to the Effective Date of the Contract.
 3. Bidder's state or other contractor license number, if applicable.
 4. Subcontractor and Supplier qualification information.
 5. Other required information regarding qualifications.
- B. A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- C. No requirement in this Article 1.06 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

1.07 PRE-BID CONFERENCE

- A. A non-mandatory pre-bid conference will be held at the time and location indicated in the Advertisement or invitation to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference; however, attendance at this conference is not required to submit a Bid.

B. Information presented at the Pre-Bid conference does not alter the Contract Documents. Engineer will issue Addenda to make any changes to the Contract Documents that result from discussions at the Pre-Bid conference. Information presented, and statements made at the Pre-Bid conference will not be binding or legally effective unless incorporated in an Addendum.

1.08 SITE AND OTHER AREAS

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

B. Owners Safety Program: Site visits and work at the Site may be governed by an Owner Safety program. If an Owner Safety program exists, it will be noted in the Supplemental Conditions.

1.09 BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder's examination of Project documentation, Site visit, and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.

B. If Bidder is awarded the Contract, Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

1.10 INTERPRETATIONS AND ADDENDA

A. Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

B. All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than two business days prior to the date for opening of Bids may not be answered. Only responses set forth in Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless

set forth in an Addendum that expressly modifies or supplements the Contract Documents.

1.11 BID SECURITY

- A. A Bid must be accompanied by Bid security made payable to Owner in an amount of 5% percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check or bank money order or Bid bond (using the form included) issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions. Electronic bids must be secured with a bid bond.
- B. The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract and furnish the required Contract security within **15 days** after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited.
- C. The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of **7 days** after the Effective Date of the Contract or 90 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- D. Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within **7 days** after the Bid opening.

1.12 CONTRACT TIMES

- A. The number of days within which the Work is to be substantially completed and ready for final payment is set forth in the Bid Form.

1.13 LIQUIDATED DAMAGES

- A. Provisions for liquidated damages, if any, are set forth in the Agreement.

1.14 SUBSTITUTE AND "OR EQUAL" ITEMS

- A. The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or-equal" items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or "or-equal" item of material or equipment, application for such acceptance

may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.

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

1.15 SUBCONTRACTORS, SUPPLIERS, AND OTHERS

A. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required.

B. If requested by Owner, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for Each Subcontractor, Supplier, individual or entity if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute in which case apparent Successful Bidder shall submit an acceptable substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

C. If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective date of the Agreement as provided in Paragraph 7.07 of the General Conditions.

1.16 PREPARATION OF BID

A. The Bid Form is included with the Bidding Documents.

1. All blanks on the Bid Form must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form. A Bid price must be indicated for each

section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.

2. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."
3. If Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.

B. A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate seal must be affixed and attested by the corporate secretary or an assistant corporate secretary. The corporate address and state of incorporation must be shown.

C. A Bid by a partnership must be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership must be shown.

D. A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.

E. A Bid by an individual must show the Bidder's name and official address.

F. A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.

G. All names must be printed in ink below the signatures.

H. The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.

- I. The Postal address, e-mail addresses, and telephone number for communications regarding the Bid must be shown.
- J. The Bid must contain evidence of Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.

1.17 BASIS OF BID

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

1.18 SUBMITTAL OF BID

- A. The Bidding Documents include one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Part 6 of the Bid Form.
- B. A Bid must be received no later than the date and time prescribed and at the place indicated in the Advertisement or invitation to bid and must be enclosed in a sealed envelope with the Project title, and, if applicable, the designated portion of the Project for which the Bid is submitted, the name and address of Bidder, and must be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid must be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED". A mailed Bid must be addressed to the location designated in the Advertisement.
- C. The Owner will confirm the validity of the Bidder's Contractor's License Number prior to opening the bid. This will be accomplished by using the Board of Public Contractor's Website located at <http://www.msboc.us/contractors.cfm>. It shall be the Bidder's responsibility to insure his License Number appears on the site. If the number does not appear, the bid will be returned unopened, regardless of whether or not the number was valid at the time of the bid opening.
- D. Any bid submitted by a nonresident contractor which does not include the nonresident contractor's current state law shall be rejected and not considered for award. If the state does not have a preference law, then the contractor shall submit a letter stating such from an officer of the court.
- E. Bidders must ensure that their electronic submission can be accessed and viewed by the County immediately upon bid opening. The County will consider any file that cannot be immediately accessed and viewed at the time of the bid opening (such as encrypted files, password protected files,

or incompatible files) to be blank or incomplete as context requires, and are therefore unacceptable. A bidder will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid.

F. Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

1.19 MODIFICATION AND WITHDRAWAL OF BID

A. An unopened Bid may be modified or withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder

B. If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, the Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, the Bidder will be disqualified from further bidding on the Work.

1.20 OPENING OF BIDS

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

1.21 BIDS TO REMAIN SUBJECT TO ACCEPTANCE

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

1.22 EVALUATION OF BIDS AND AWARD OF CONTRACT

A. Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.

B. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.

- C. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.
- D. If Owner awards the contract for the Work, such award will be to the responsible Bidder submitting the lowest responsive Bid.
- E. More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- F. In evaluating Bids, Owner will consider whether the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- G. In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- H. Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Supplier to perform the Work in accordance with the Contract Documents.

1.23 BONDS AND INSURANCE

- A. Section 1.11, Bid Security, of these Instructions, addresses any requirements for providing bid bonds as part of the bidding process.
- B. Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds, other required bonds (if any), and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by required bonds and insurance documentation.

1.24 SIGNING OF AGREEMENT

- A. When Owner issues a Notice of Award to the Successful Bidder, it will be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder must execute and deliver the required number of counterparts of the Agreement and any bonds and insurance documentation required to be delivered by the Contract

Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

SECTION 00410 - BID FORM

PART 1 – BID RECIPIENT

1.01 This Bid is submitted to:

**JACKSON COUNTY BOARD OF SUPERVISORS
P.O. BOX 998
PASCAGOULA, MISSISSIPPI, 39568-0998**

1.02 This Bid is submitted for:

**JACKSON COUNTY FAIRGROUNDS
NEW EQUIPMENT STORAGE BLDG**

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

1.04 Company and person to contact for additional information regarding this Bid:

- A. Bidder Name:
- B. Title:
- C. Address:
- D. Telephone:

PART 2 - BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

2.02 Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

PART 3 – BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

3.01 In submitting this Bid, Bidder represents the following:

- A. Bidder has examined and carefully studied the Bidding Documents, including Addenda acknowledged above in Section 2.02.
- B. Bidder has visited the Site and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
- F. Based on the information and observations referred to above in Section 3.01E, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

3.02 The Bidder certifies the following:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding.
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Section 3.02.D:
 1. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
 2. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
 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.
 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.

PART 4 – BASIS OF BID

4.01 Bidder will complete the Work in accordance with the Contract Documents for the following lump sum (stipulated) price:

LUMP SUM PRICE (BASE BID)

_____ DOLLARS \$ _____

4.02 The following unit prices will apply to authorized changes in quantities of items added or deducted from the Work. These unit prices shall remain fixed throughout the length of the contract from the date of the signatures of the contract between the Owner and the Contractor. During this period, the Owner shall have the option to execute change orders to the Contract for Construction for any or all the items listed below in the quantities selected and at the unit prices so stated.

1. Unit Prices for Soils

A. Undercut

Add \$_____ per Compacted Yard Measured in Place.

Deduct \$_____ per Compacted Yard Measured in Place.

B. Haul Off

Add \$_____ per Compacted Yard Measured in Place.

Deduct \$_____ per Compacted Yard Measured in Place.

C. Haul In Structural Fill – Type S1

Add \$_____ per Compacted Yard Measured in Place.

Deduct \$_____ per Compacted Yard Measured in Place.

PART 5 – TIME OF COMPLETION

5.01 Bidder agrees that the Work will be substantially complete within **120** calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within **150** calendar days after the date when the Contract Times commence to run.

5.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

PART 6 – ATTACHMENTS TO THIS BID

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

- A. Required Bid security, Bid Bond, Section 00430;
- B. List of Proposed Subcontractors, Section 00437;
- C. List of Project References, Section 00438;
- D. Non-Collusion/Debarment Affidavit (In Duplicate);
- E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids;
- F. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids; and
- G. Other required documents.

PART 7 - DEFINED TERMS

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

PART 8 - BIDDERS SIGNATURE AND SWORN STATEMENT

BIDDER hereby submits this Bid as set forth above:

Bidder:

(typed or printed name of organization)

By:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

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

Attest:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(typed or printed)

Address for giving notices:

Bidder's Contact:

Name:

(typed or printed)

Title:

(typed or printed)

Phone:

Email:

Address:

Bidder's Contractor License No.: (if applicable)

BID BOND (PENAL SUM FORM)

Bidder Name: Address (<i>principal place of business</i>):	Surety Name: Address (<i>principal place of business</i>):
Owner Name: JACKSON COUNTY BOARD OF SUPERVISORS Address (<i>principal place of business</i>): P.O. BOX 998 PASCAGOULA, MISSISSIPPI 39568	Bid Project (<i>name and location</i>): JACKSON COUNTY FAIRGROUNDS NEW EQUIPMENT STORAGE BLDG Bid Due Date:
Bond Penal Sum: Date of Bond:	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	
Bidder _____ <small>(Full formal name of Bidder)</small>	Surety _____ <small>(Full formal name of Surety) (corporate seal)</small>
By: _____ <small>(Signature)</small>	By: _____ <small>(Signature) (Attach Power of Attorney)</small>
Name: _____ <small>(Printed or typed)</small>	Name: _____ <small>(Printed or typed)</small>
Title: _____	Title: _____
Attest: _____ <small>(Signature)</small>	Attest: _____ <small>(Signature)</small>
Name: _____ <small>(Printed or typed)</small>	Name: _____ <small>(Printed or typed)</small>
Title: _____	Title: _____
<i>Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.</i>	

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

SECTION 00437 – LIST OF SUBCONTRACTORS

The Contractor shall list Subcontractors, Suppliers, individuals, or entities to be utilized on the Work. The name of the Company or individual, the address, the item(s) of Work to be subcontracted, and the value of Work subcontracted shall be provided below. List the Subcontractor's Certificate of Responsibility Number if the value of Work is equal to or greater than \$50,000.00

Name: _____

Address: _____

Item(s) of Work: _____

Value of Work: _____

Certificate of Responsibility Number: _____

Name: _____

Address: _____

Item(s) of Work: _____

Value of Work: _____

Certificate of Responsibility Number: _____

Name: _____

Address: _____

Item(s) of Work: _____

Value of Work: _____

Certificate of Responsibility Number: _____

Name: _____

Address: _____

Item(s) of Work: _____

Value of Work: _____

Certificate of Responsibility Number: _____

The person to contact for additional information regarding this form:

Name: _____

Title: _____

Note: If additional space is necessary to list all Subcontractors, bidder shall provide multiple copies of this form.

SECTION 00438 – PROJECT REFERENCES

The Contractor shall provide a list of five (5) similar projects that you have completed, with the project name, location, contract amount, references, and contact information for each submitted reference.

Project No. 1: _____

Location: _____

Contract Amount: _____

Owner: _____

Contact: _____

Phone Number: _____

Architect/Engineer: _____

Contact: _____

Phone Number: _____

Project No. 2: _____

Location: _____

Contract Amount: _____

Owner: _____

Contact: _____

Phone Number: _____

Architect/Engineer: _____

Contact: _____

Phone Number: _____

Project No. 3: _____

Location: _____

Contract Amount: _____

Owner: _____

Contact: _____

Phone Number: _____

Architect/Engineer: _____

Contact: _____

Phone Number: _____

Project No. 4: _____

Location: _____

Contract Amount: _____

Owner: _____

Contact: _____

Phone Number: _____

Architect/Engineer: _____

Contact: _____

Phone Number: _____

Project No. 5: _____

Location: _____

Contract Amount: _____

Owner: _____

Contact: _____

Phone Number: _____

Architect/Engineer: _____

Contact: _____

Phone Number: _____

NON-COLLUSION/DEBARMENT AFFIDAVIT

(Execute in duplicate)

I, _____,
(Name of person signing affidavit)

individually, and in my capacity as _____ of
(Title)

_____ do hereby certify under
(Name of Firm, Partnership, or Corporation)

penalty of perjury under the laws of the United States and the State of Mississippi that _____

_____, Bidder
(Name of Firm, Partnership, or Corporation)

on Project No. _____,

in _____ County(ies), Mississippi, has not either

directly or indirectly entered into any agreement, participated in any collusion; or otherwise taken any action in restraint of free competitive bidding in connection with this contract; nor have any of its corporate officers or principal owners.

Except as noted hereafter, it is further certified that said legal entity and its corporate officers, principal owners, managers, auditors and others in a position of administering federal funds:

- a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in (b) above; and
- d) Have not within a three-year period preceding this application/ proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Initial here "_____" if exceptions are attached and made a part thereof. Any exceptions shall address to whom it applies, initiating agency and dates of such action.

Note: Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

The bidder further certifies that the certification requirements contained in Section XI of Form FHWA 1273, will be or have been included in all subcontracts, material supply agreements, purchase orders, etc. except those procurement contracts for goods or services that are expected to be less than the Federal procurement small purchase threshold fixed at 10 U.S.C. 2304(g) and 41 U.S.C. 253(g) (currently \$25,000) which are excluded from the certification requirements.

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

- 1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- 2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this contract, Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions will be completed and submitted.

The certification contained in (1) and (2) above is a material representation of fact upon which reliance is placed and a prerequisite imposed by Section 1352, Title 31, U.S. Code prior to entering into this contract. Failure to comply shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000. The bidder shall include the language of the certification in all subcontracts exceeding \$100,000 and all subcontractors shall certify and disclose accordingly.

All of the foregoing and attachments (when indicated) is true and correct.

Executed on _____

Signature

NON-COLLUSION/DEBARMENT AFFIDAVIT

(Execute in duplicate)

I, _____,
(Name of person signing affidavit)

individually, and in my capacity as _____ of
(Title)

_____ do hereby certify under
(Name of Firm, Partnership, or Corporation)

penalty of perjury under the laws of the United States and the State of Mississippi that _____

_____, Bidder
(Name of Firm, Partnership, or Corporation)

on Project No. _____,

in _____ County(ies), Mississippi, has not either

directly or indirectly entered into any agreement, participated in any collusion; or otherwise taken any action in restraint of free competitive bidding in connection with this contract; nor have any of its corporate officers or principal owners.

Except as noted hereafter, it is further certified that said legal entity and its corporate officers, principal owners, managers, auditors and others in a position of administering federal funds:

- a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in (b) above; and
- d) Have not within a three-year period preceding this application/ proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Initial here "_____" if exceptions are attached and made a part thereof. Any exceptions shall address to whom it applies, initiating agency and dates of such action.

Note: Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

The bidder further certifies that the certification requirements contained in Section XI of Form FHWA 1273, will be or have been included in all subcontracts, material supply agreements, purchase orders, etc. except those procurement contracts for goods or services that are expected to be less than the Federal procurement small purchase threshold fixed at 10 U.S.C. 2304(g) and 41 U.S.C. 253(g) (currently \$25,000) which are excluded from the certification requirements.

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

- 1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- 2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this contract, Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions will be completed and submitted.

The certification contained in (1) and (2) above is a material representation of fact upon which reliance is placed and a prerequisite imposed by Section 1352, Title 31, U.S. Code prior to entering into this contract. Failure to comply shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000. The bidder shall include the language of the certification in all subcontracts exceeding \$100,000 and all subcontractors shall certify and disclose accordingly.

All of the foregoing and attachments (when indicated) is true and correct.

Executed on _____

Signature

NOTICE OF AWARD

Date of Issuance:

Owner: JACKSON COUNTY BOARD OF SUPERVISORS Owner's Project No.:
Engineer: DEAN STRUCTURAL ENGINEERS, INC. Engineer's Project No.: 25023
Project: JACKSON COUNTY FAIRGROUNDS NEW EQUIPMENT
 STORAGE BLDG
Contract Name: JACKSON COUNTY FAIRGROUNDS NEW EQUIPMENT
 STORAGE BLDG

Bidder:

Bidder's Address:

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

JACKSON COUNTY FAIRGROUNDS NEW EQUIPMENT STORAGE BLDG

The Contract Price of the awarded Contract is \$_____.

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

Three (3) unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

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

1. Deliver to Owner **three (3)** counterparts of the Agreement, signed by Bidder (as Contractor).
2. Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.

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

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

Owner: **JACKSON COUNTY BOARD OF SUPERVISORS**

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

Copy: Engineer

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

This Agreement is by and between the **JACKSON COUNTY BOARD OF SUPERVISORS** ("Owner") and _____ ("Contractor").

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

Owner and Contractor hereby agree as follows:

ARTICLE 1 - WORK

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

THIS PROJECT CONSISTS OF FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT TO CONSTRUCT, COMPLETE AND READY FOR UTILIZATION A NEW 2000 SQ. FT. PRE-ENGINEERED METAL BUILDING (PEMB). THE PROJECT SCOPE INCLUDES, BUT IS NOT LIMITED TO: SITE WORK, FOUNDATION SYSTEM, PEMB SYSTEM, ELECTRICAL WORK, AND OTHER ITEMS PER THE CONSTRUCTION DOCUMENTS.

ARTICLE 2 - THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

**JACKSON COUNTY FAIRGROUNDS
NEW EQUIPMENT STORAGE BLDG**

ARTICLE 3 - ENGINEER

3.01 The Owner has retained **DEAN STRUCTURAL ENGINEERS, INC.** ("Engineer") to act as Owner's representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.

ARTICLE 4 - CONTRACT TIMES

4.01 *Time is of the Essence*

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

4.02 *Contract Times: Days*

A. The Work will be substantially complete within **120** days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within **150** days after the date when the Contract Times commence to run.

4.03 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and

Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner **\$500.00** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.
2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner **\$500.00** for each day that expires after such time until the Work is completed and ready for final payment.
4. Liquidated damages for failing to timely attain Milestones, Substantial Completion, and final completion are not additive, and will not be imposed concurrently.

B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

ARTICLE 5 - CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract:

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

All specific unit prices are included in the above price in accordance with Paragraph 13.03 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 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 Progress Payments; Retainage

A. Provided that an Application for Payment is received by the Engineer not later than the First day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the Fifteenth day of the following month, as provided in Paragraph 6.02.A.1 below. If an Application for Payment is received by the Engineer after the application date fixed above, payment of the amount certified shall be made by the Owner not later than Forty-Five (45) days after the Engineer received the Application for Payment. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units

completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.
 - a. **5%** percent of the value of the Work completed (with the balance being retainage).
 - 1) If 50 percent or more of the Work has been 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, future retainage shall be withheld at the rate of two and one-half percent (2.5%)

6.03 Final Payment

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

6.04 Consent of Surety

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

ARTICLE 7 - CONTRACT DOCUMENTS

7.01 Contents

- A. The Contract Documents consist of all of the following:
 1. This Agreement.
 2. Bonds:
 - a. Performance bond (together with power of attorney).
 - b. Payment bond (together with power of attorney).
 3. General Conditions.
 4. Supplementary Conditions.
 5. Specifications as listed in the table of contents of the project manual (copy of list attached).
 7. Drawings (not attached but incorporated by reference) consisting of **17** sheets with each sheet bearing the following general title: JACKSON COUNTY FAIRGROUNDS NEW EQUIPMENT STORAGE BLDG.
 8. Addenda (numbers to , inclusive).
 9. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid
 - b. Documentation submitted by the Contractor prior to Notice of Award.

10. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
 - e. Warranty Bond, if any.
- B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

ARTICLE 8 - REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

8.01 Contractor's Representations

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

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

8.02 Contractor's Certifications

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

8.03 Standard General Conditions

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

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

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

Owner:

Contractor:

(typed or printed name of organization)

(typed or printed name of organization)

By: _____
(individual's signature)

Date: _____
(date signed)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Attest: _____
(individual's signature)

Title: _____
(typed or printed)

Address for giving notices:

Designated Representative:
Name: _____
(typed or printed)

Title: _____
(typed or printed)

Address:

Phone: _____
Email: _____

(If 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.)

By: _____
(individual's signature)

Date: _____
(date signed)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

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

Attest: _____
(individual's signature)

Title: _____
(typed or printed)

Address for giving notices:

Designated Representative:
Name: _____
(typed or printed)

Title: _____
(typed or printed)

Address:

Phone: _____
Email: _____

License No.: _____
(where applicable)

State: _____

NOTICE TO PROCEED

Owner: JACKSON COUNTY BOARD OF SUPERVISORS Owner's Project No.: _____

Engineer: DEAN STRUCTURAL ENGINEERS, INC. Engineer's Project No.: 25023

Contractor: _____ Contractor's Project No.: _____

Project: JACKSON COUNTY FAIRGROUNDS NEW EQUIPMENT STORAGE BLDG

Contract Name: JACKSON COUNTY FAIRGROUNDS NEW EQUIPMENT STORAGE BLDG

Effective Date of Contract: _____

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

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

In accordance with the Agreement:

The number of days to achieve Substantial Completion is **120 DAYS** from the date stated above for the commencement of the Contract Times, resulting in a date for Substantial Completion of _____ and the number of days to achieve readiness for final payment is **150 DAYS** from the commencement date of the Contract Times, resulting in a date for readiness for final payment of _____.

Owner: JACKSON COUNTY BOARD OF SUPERVISORS

By (signature): _____

Name (printed): _____

Title: _____

Date Issued: _____

Copy: Engineer

PERFORMANCE BOND

Contractor Name: Address (<i>principal place of business</i>):	Surety Name: Address (<i>principal place of business</i>):
Owner Name: JACKSON COUNTY BOARD OF SUPERVISORS Mailing address (<i>principal place of business</i>): P.O. BOX 998 PASCAGOULA, MISSISSIPPI 39568	Contract Description (<i>name and location</i>): JACKSON COUNTY FAIRGROUNDS NEW EQUIPMENT STORAGE BLDG Contract Price: Effective Date of Contract:
Bond Bond Amount: Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: <input checked="" type="checkbox"/> None <input type="checkbox"/> See Paragraph 16	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
_____ <i>(Full formal name of Contractor)</i>	
By: _____ <i>(Signature)</i>	_____ <i>(Full formal name of Surety) (corporate seal)</i>
Name: _____ <i>(Printed or typed)</i>	_____ <i>(Signature)(Attach Power of Attorney)</i>
Title: _____	_____ <i>(Printed or typed)</i>
Attest: _____ <i>(Signature)</i>	_____ <i>(Signature)</i>
Name: _____ <i>(Printed or typed)</i>	_____ <i>(Printed or typed)</i>
Title: _____	_____ <i>(Signature)</i>
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

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

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

- 7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- 7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
- 7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

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

11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.

12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with

said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

- 14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
- 14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
- 14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
- 14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

16. Modifications to this Bond are as follows: **NONE**

PAYMENT BOND

Contractor Name: Address (<i>principal place of business</i>):	Surety Name: Address (<i>principal place of business</i>):
Owner JACKSON COUNTY BOARD OF SUPERVISORS Name: SUPERVISORS Mailing address (<i>principal place of business</i>): P.O. BOX 998 PASCAGOULA, MISSISSIPPI 39568	Contract Description (<i>name and location</i>): JACKSON COUNTY FAIRGROUNDS NEW EQUIPMENT STORAGE BLDG Contract Price: Effective Date of Contract:
Bond Bond Amount: Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: <input checked="" type="checkbox"/> None <input type="checkbox"/> See Paragraph 18	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
_____ <i>(Full formal name of Contractor)</i>	
By: _____ <i>(Signature)</i>	_____ <i>(Full formal name of Surety) (corporate seal)</i>
Name: _____ <i>(Printed or typed)</i>	By: _____ <i>(Signature) (Attach Power of Attorney)</i>
Title: _____	Name: _____ <i>(Printed or typed)</i>
Attest: _____ <i>(Signature)</i>	Title: _____
Name: _____ <i>(Printed or typed)</i>	Attest: _____ <i>(Signature)</i>
Title: _____	Name: _____ <i>(Printed or typed)</i>
Title: _____	
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

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

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

- 16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- 16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
- 16.1.7. The total amount of previous payments received by the Claimant; and
- 16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

18. Modifications to this Bond are as follows: **NONE**

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



Endorsed By



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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

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

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

- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
- c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
- d. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or

communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

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

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

thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.

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

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

1.02 Terminology

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

- 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. *Contract Price or Contract Times:* References to a change in "Contract Price or Contract Times" or "Contract Times or Contract Price" or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term "or both" is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

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

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

2.02 *Copies of Documents*

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

2.03 *Before Starting Construction*

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
2. a preliminary Schedule of Submittals; and
3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

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

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

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

3.02 *Reference Standards*

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

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

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

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

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take

precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

- a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
- b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

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

3.05 *Reuse of Documents*

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

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

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

4.02 *Starting the Work*

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

4.03 *Reference Points*

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

4.04 *Progress Schedule*

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

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
2. Abnormal weather conditions;
3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
4. Acts of war or terrorism.

D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:

1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.

E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:

1. The circumstances that form the basis for the requested adjustment;
2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.

Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the

effect of the delay, disruption, or interference on the critical path to completion of the Work.

- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

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

5.01 Availability of Lands

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

5.02 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

- 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
- 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise;

(b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

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

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

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

5.03 *Subsurface and Physical Conditions*

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

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

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

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

D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
2. is of such a nature as to require a change in the Drawings or Specifications;
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

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

B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement

to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

E. *Possible Price and Times Adjustments*

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

F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities.

Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
 1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;
 3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
 1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written

statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

F. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

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

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;

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

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

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

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

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

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the

required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

- C. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.
- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and

2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.
- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 1. include at least the specific coverages required;
 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;

- 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
- 5. include all necessary endorsements to support the stated requirements.

C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:

- 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
- 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
- 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);
- 4. not seek contribution from insurance maintained by the additional insured; and
- 5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur:* Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities:* Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.

- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.
- 1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
- 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.

1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

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

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at

Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

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

7.03 *Labor; Working Hours*

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

7.04 *Services, Materials, and Equipment*

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

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
 - b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.

E. *Treatment as a Substitution Request:* If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an “or-equal” item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 *Substitutes*

A. *Contractor’s Request; Governing Criteria:* Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in

Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or

otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.

- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.

- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any

license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.

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

7.09 *Permits*

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

7.10 *Taxes*

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

7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to

such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.

C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

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

7.13 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.

B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.

C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any

of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.

H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).

J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

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

7.15 *Emergencies*

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

7.16 Submittals

A. *Shop Drawing and Sample Requirements*

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

B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.

1. *Shop Drawings*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
2. *Samples*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer

may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Engineer's Review of Shop Drawings and Samples

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.
5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two

resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

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

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.
 - d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.

F. *Owner-delegated Designs*: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and

2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.

C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
2. normal wear and tear under normal usage.

D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:

1. Observations by Engineer;
2. Recommendation by Engineer or payment by Owner of any progress or final payment;
3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. Use or occupancy of the Work or any part thereof by Owner;
5. Any review and approval of a Shop Drawing or Sample submittal;
6. The issuance of a notice of acceptability by Engineer;
7. The end of the correction period established in Paragraph 15.08;
8. Any inspection, test, or approval by others; or
9. Any correction of defective Work by Owner.

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

7.18 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity

directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.

B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.

C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.

E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:

1. Checking for conformance with the requirements of this Paragraph 7.19;
2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.

F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.

G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be

set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
2. An itemization of the specific matters to be covered by such authority and responsibility; and
3. The extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.

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

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

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

9.02 *Replacement of Engineer*

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

9.03 *Furnish Data*

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

9.04 *Pay When Due*

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

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

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

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

9.07 *Change Orders*

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

9.08 *Inspections, Tests, and Approvals*

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

9.09 *Limitations on Owner's Responsibilities*

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

9.10 *Undisclosed Hazardous Environmental Condition*

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

9.11 *Evidence of Financial Arrangements*

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

9.12 *Safety Programs*

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

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

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

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 Resident Project Representative

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

10.04 Engineer's Authority

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.
- E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 Determinations for Unit Price Work

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

10.06 Decisions on Requirements of Contract Documents and Acceptability of Work

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

10.07 Limitations on Engineer's Authority and Responsibilities

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

Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

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

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

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

11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.

B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.
- B. If Owner has issued a Work Change Directive and:
 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

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

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving

the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.

- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

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

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit will be determined as follows:
 1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;

- c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
- d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
- e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
- f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

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

11.09 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

B. Change Proposal Procedures

1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.
3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
5. *Binding Decision:* Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion:* Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

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

ARTICLE 12—CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal

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

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

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

13.01 *Cost of the Work*

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

benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
5. Other costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.
 - c. *Construction Equipment Rental*
 - 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment,

machinery, or parts must cease when the use thereof is no longer necessary for the Work.

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

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

1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. The cost of purchasing, renting, or furnishing small tools and hand tools.
3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
6. Expenses incurred in preparing and advancing Claims.
7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

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

13.02 *Allowances*

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

13.03 *Unit Price Work*

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

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

- b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
- 2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
- 3. Adjusted unit prices will apply to all units of that item.

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

14.01 Access to Work

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

14.02 Tests, Inspections, and Approvals

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

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

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

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

14.03 *Defective Work*

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

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved

by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

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

14.06 *Owner May Stop the Work*

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

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then

Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.

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

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

15.01 *Progress Payments*

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

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

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;

- c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
- d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
- e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
- d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*

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

E. *Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

- a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
- c. Contractor has failed to provide and maintain required bonds or insurance;
- d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

- e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
- f. The Work is defective, requiring correction or replacement;
- g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
- h. The Contract Price has been reduced by Change Orders;
- i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
- j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
- k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
- l. Other items entitle Owner to a set-off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

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

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

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

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.

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

15.05 *Final Inspection*

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

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment

bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim, appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

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

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

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

16.02 *Owner May Terminate for Cause*

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

to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

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

16.03 *Owner May Terminate for Convenience*

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

16.04 *Contractor May Stop Work or Terminate*

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

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 Methods and Procedures

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

ARTICLE 18—MISCELLANEOUS

18.01 Giving Notice

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

18.02 Computation of Times

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

18.03 Cumulative Remedies

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be

as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

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

18.05 *No Waiver*

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

18.06 *Survival of Obligations*

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

18.07 *Controlling Law*

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

18.08 *Assignment of Contract*

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

18.09 *Successors and Assigns*

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

18.10 *Headings*

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

SECTION 00730
SUPPLEMENTARY CONDITIONS
OF THE CONSTRUCTION CONTRACT

Prepared for Jackson County Board of Supervisors

These Supplementary Conditions amend or supplement EJCDC® C-00 70 00, Standard General Conditions of the Construction Contract (2018). All provisions which are not so amended or supplemented remain in full force and effect.

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

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

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

SC-1.01.A.22. *Engineer* -- ADD the following language at the end of the last sentence in Paragraph 1.01.A.22:

Wherever in these Contract Documents the word "Engineer" or "E/A" or "A/E" or "Professional" appears, it shall be understood to mean the Engineer, Dean Structural Engineers, Inc., and their authorized representatives, acting either directly or indirectly as authorized agents of the Owner.

SC-1.01.A.30. *Owner* -- ADD the following language at the end of the last sentence in Paragraph 1.01.A.30:

Whenever in these Contract Documents the word "Owner" or "Client" appears, it shall be understood to mean the Jackson County Board of Supervisors acting by and through their official minutes, and their authorized representatives.

SC-1.01.A.42. *Substantial Completion* – AMEND the first sentence of Paragraph 1.01.A.42 to read as follows:

CHANGE the language from "in the opinion of Engineer," to "in the opinion of the Engineer and Owner,"

SC-1.01.A.51. *Any* -- ADD the following definition immediately following definition 50:

The term "any" in the Contract Documents shall be interpreted as "any and all" whenever more than 1 item would be applicable for completion of the Work of the Project; for example, "any other general expenses."

SC-1.01.A.52. *Product Data* -- ADD the following definition immediately following definition 51:

Illustrations, standards, schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the work.

SC-1.01.A.53. *Trade or Tradesman* -- ADD the following definition immediately following definition 52:

A tradesman, trades person, or skilled worker who specializes in a particular occupation or skill that requires work experience, on-the-job training, or other formal training.

ARTICLE 2—PRELIMINARY MATTERS

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

SC-2.01.B DELETE Paragraph 2.01.B in its entirety and INSERT the following in its place:

- B. Before any Work at the Site is started, Contractor shall deliver to Owner, 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 is required to purchase and maintain in accordance with Article 6.

2.02 *Copies of Documents*

SC2.02.A AMEND the language in the first sentence in Paragraph 2.02.A to read as follows: Owner shall furnish to Contractor one printed copy of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF), unless otherwise noted in Article 3.

2.04 *Preconstruction Conference; Designation of Authorized Representative*

SC-2.04.B AMEND the language in the second sentence in Paragraph 2.04.B to read as follows:

Contractor's representative shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of Contractor. Owner's representative is authorized to act as a liaison with respect to the Project.

2.05 *Acceptance of Schedules*

SC-2.05.A.2 DELETE Paragraph 2.05.A.2 in its entirety and INSERT the following Paragraph 2.05.A.2 in its place:

2. Contractor's Schedule of Submittals will be acceptable to Engineer if complies with Section 01330 Submittals.

SC-2.05.A.3 DELETE Paragraph 2.05.A.3 in its entirety and INSERT the following Paragraph 2.05.A.3 in its place:

3. Contractor's Schedule of Submittals will be acceptable to Engineer if complies with Section 01330 Submittals.

Article 2 ADD the following new paragraph immediately following Paragraph 2.06:

SC-2.07 *Narrative Report Outline*

- B. A narrative report as outlined in specification Section 01330 shall be required and shall accompany all payment applications prior to approval.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.03 *Reporting and Resolving Discrepancies*

SC-3.03 ADD the following new subparagraph immediately following Paragraph 3.03.B:

- c. Whenever the Contract Documents contain contradictions or discrepancies within the document, the most costly means or method shall be applied.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

4.01.A AMEND the third sentence in Paragraph 4.01.A to read as follows:

CHANGE the language from “later than the 60th day” to “later than the 90th day”.

4.03 *Reference Points*

4.03.A AMEND the second sentence of Paragraph 4.03.A to read as follows:

CHANGE the language from “without prior written approval of Owner” to “without prior written approval of Owner and Engineer”.

4.05 *Delays in Contractor's Progress*

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

5. Weather-Related Delays

a. If “abnormal weather conditions” as set forth in Paragraph 4.05.C.2 of the General Conditions are the basis for a request for an equitable adjustment in the Contract Times, such request must be documented by data substantiating each of the following: 1) that weather conditions were abnormal for the period of time in which the delay occurred, 2) that such weather conditions could not have been reasonably anticipated, and 3) that such weather conditions had an adverse effect on the Work as scheduled.

b. The existence of abnormal weather conditions will be determined on a month-by-month basis in accordance with the following:

1) The contractor shall include in the time of construction the following number of expected rain days for each month listed below in the schedule.

January 8 days

February 8 days

March 7 days

April 7 days

May 7 days

June 7 days

July 9 days

August 8 days

September 9 days

October 6 days

November 6 days

December 9 days

2) The Engineer will grant a time extension for every workday in which precipitation amounted to $\frac{1}{2}$ " or more and weather reduced production to less than 5 hours on items of work on the critical path, in excess of the number of days on the above chart. Schedules that are not current, updated, and approved by Engineer will be reason for refusal of any additional time extension.

- 3) For an extension of time for rain days to be considered, the Contractor must document that he had only exterior work, with no interior work, which was delayed due to inclement weather conditions. Requests for rain days must be submitted with the pay application for that time period.

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

5.01 Availability of Lands

SC-5.01.B DELETE Paragraph 5.01.B in its entirety and INSERT the following in its place:

- B. “Intentionally Omitted” or “Not Used”.

5.03 Subsurface and Physical Conditions

SC-5.03 Subsurface and Physical Conditions

SC-5.03.C DELETE Paragraph 5.03.C in its entirety and INSERT the following in its place:

- C. Unless otherwise provided under general Section 00310, no available project information, reports, explorations, or tests of subsurface conditions at or contiguous to the Site are known to the Owner or Engineer.

SC-5.03 ADD the following new paragraph immediately following Paragraph 5.03.D:

- E. *Existing Site Conditions:* Site survey information has been compiled from past records and limited field investigations and although stated with as much accuracy as possible, may contain errors or discrepancies. Contractor shall perform investigations as necessary to accomplish the Work. Any unknown item encountered that impacts the Work shall be handled under Article 3.03.

5.04 Differing Subsurface or Physical Conditions

SC-5.04.E.1 AMEND the first sentence of Paragraph 5.04.E.1 to read as follows:

CHANGE the language from “Contractor shall be entitled to an equitable adjustment in the Contract Price ...” to “An equitable adjustment may be made in the Contract Price...”.

5.05 Underground Facilities

SC-5.05.F.1 AMEND the first sentence of Paragraph 5.05.F.1 to read as follows:

CHANGE the language from “Contractor shall be entitled to an equitable adjustment in the Contract Price ...” to “An equitable adjustment may be made in the Contract Price...”.

5.06 Hazardous Environmental Conditions at Site

DELETE Paragraph 5.06.B in its entirety and INSERT the following in its place:

- B. Unless otherwise provided under general Section 00310, no available project information, reports, explorations, or tests of subsurface conditions at or contiguous to the Site are known to the Owner or Engineer.

SC-5.06.I DELETE Paragraph 5.06.I in its entirety and INSERT the following in its place:

- I. Intentionally omitted.

ARTICLE 5 ADD the following new paragraph immediately after Paragraph 5.06:

A. The Contractor acknowledges that he has satisfied himself as to the nature and location of the Work; the general and local conditions, particularly those bearing upon availability of transportation, disposal, handling and storage of materials; availability of labor, water, electric power, and roads; uncertainties of weather, river stages, or similar physical conditions at the site; the conformation and conditions of the ground; the character of equipment and facilities needed preliminary to and during the prosecution of the work; and all other matters which can in any affect the Work or the cost thereof under this Contract. The Contractor further acknowledges that he has satisfied himself as to the character, quality, and quantity of surface and subsurface materials and groundwater to be encountered from inspecting the site. Any failure by the Contractor to acquaint himself with all the available information will not relieve him from responsibility for properly estimating the difficulty or cost of successfully performing the Work. Neither the Owner nor the Engineer assumes responsibility for any conclusion or interpretation made by the Contractor.

ARTICLE 6—BONDS AND INSURANCE

6.02 *Insurance—General Provisions*

SC-6.02.E DELETE Paragraph 6.02.E in its entirety.

SC-6.02.N ADD the following new paragraph immediately after Paragraph 6.02.N:

O. The Contractor shall be required to submit a Certificate of Insurance with every pay application; or, no later than every thirty (30) days for the term of Contract. If an approved Certificate of Insurance is not included with the pay application, then it will be considered non-compliant with the Contract Documents and returned to the Contractor.

6.03 *Contractor's Insurance*

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

D. *Other Additional Insureds:* As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional insureds (in addition to Owner and Engineer) the following: **None**

E. *Workers' Compensation and Employer's Liability:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

Workers' Compensation and Related Policies	Policy limits of not less than:
Workers' Compensation	
State	Statutory
Applicable Federal (e.g., Longshoreman's)	Statutory
Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable	Statutory

F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:

1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
2. damages insured by reasonably available personal injury liability coverage, and
3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

G. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage.
 - a. Such insurance must be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
2. Blanket contractual liability coverage, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
3. Severability of interests and no insured-versus-insured or cross-liability exclusions.
4. Underground, explosion, and collapse coverage.
5. Personal injury coverage.
6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

H. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:

1. Any modification of the standard definition of "insured contract" (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).
2. Any exclusion for water intrusion or water damage.
3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.
4. Any exclusion of coverage relating to earth subsidence or movement.

5. Any exclusion for the insured's vicarious liability, strict liability, or statutory liability (other than worker's compensation).
6. Any limitation or exclusion based on the nature of Contractor's work.
7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

I. *Commercial General Liability—Minimum Policy Limits*

Commercial General Liability	Policy limits of not less than:
General Aggregate	\$2,000,000
Products—Completed Operations Aggregate	\$2,000,000
Personal and Advertising Injury	\$2,000,000
Bodily Injury and Property Damage—Each Occurrence	\$2,000,000

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

Automobile Liability	Policy limits of not less than:
Bodily Injury	
Each Person	\$2,000,000
Each Accident	\$2,000,000
Property Damage	
Each Accident	\$2,000,000

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

Excess or Umbrella Liability	Policy limits of not less than:
Each Occurrence	\$2,000,000

Excess or Umbrella Liability	Policy limits of not less than:
General Aggregate	\$2,000,000

L. *Using Umbrella or Excess Liability Insurance to Meet CGL and Other Policy Limit Requirements:* Contractor may meet the policy limits specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy's policy limits and partial attribution of the policy limits of an umbrella or excess liability policy that is at least as broad in coverage as that of the underlying policy, as specified herein. If such umbrella or excess liability policy was required under this Contract, at a specified minimum policy limit, such umbrella or excess policy must retain a minimum limit of **\$2,000,000** after accounting for partial attribution of its limits to underlying policies, as allowed above.

M. *Contractor's Pollution Liability Insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage, including cleanup costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance must be maintained for no less than three years after final completion.

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

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

Contractor's Professional Liability	Policy limits of not less than:
Each Claim	\$2,000,000
Annual Aggregate	\$2,000,000

6.04 *Builder's Risk and Other Property Insurance*

SC-6.04 Delete Section 6.04 in its entirety and INSERT the following in its place:

A. When available, Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof.

1. This insurance shall:

- a. include the interests of Owner, Contractor, Subcontractors, Engineer and any other individuals or entities identified herein, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
- b. in addition to the individuals and entities specified, include additional insured per Paragraph 5.11.
- c. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework, and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;
- d. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
- e. 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;
- f. allow for partial utilization of the Work by Owner;
- g. include testing and startup; and
- h. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

2. Contractor shall be responsible for any deductible or self-insured retention.
3. The policies of insurance required to be purchased and maintained by Contractor in accordance with this Paragraph SC-6.04.A shall comply with the requirements of paragraph 6.03 of the General Conditions.

6.05 *Property Losses; Subrogation*

SC-6.05.A Delete subparagraphs 6.05.A.1 and 6.05.A.2 in their entirety.

SC-6.05.B Delete subparagraphs 6.05.B.1 its entirety.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

SC-7.08 DELETE Paragraph 7.08 in its entirety and INSERT the following in its place:

7.08 Intentionally Omitted.

7.12 *Record Documents*

SC-7.12 ADD the following new paragraph immediately after Paragraph 7.12.A:

- B. Owner may withhold progress payments until record documents are properly maintained and made available for Engineer review. Final payment may not be made until all record documents are accepted in writing by Owner.

7.16 *Submittals*

SC-7.16 ADD the following new paragraph immediately after Paragraph 7.16.F:

- G. 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.

SC-7.16 ADD the following new paragraph immediately after Paragraph 7.16.G:

- H. In the event that Contractor requests a substitution for a previously approved item, Contractor shall reimburse Owner for Engineer's charges for such time to review and approve the request unless the need for such substitution is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

SC-7.17 ADD the following new paragraph immediately after Paragraph 7.17.E:

- F. Unless additional warranties are included in the technical specifications, the Contractor shall guarantee all Work for a period of one-year following Substantial Completion date.

7.18 *Indemnification*

SC-7.18 DELETE Paragraphs 7.18.A and 7.18.B in their entirety and INSERT the following in their place:

- A. Contractor shall defend, indemnify and hold harmless Owner and Engineer, their agents, servants, employees, officers, directors, members, partners, successors and assigns from actions, causes, suits, costs, claims, damages, expenses and demands whatsoever in law or in equity, (including but not limited to all fees and charges of engineers, architects, and attorneys and all court or other dispute resolution costs), with respect to, or on account of, any injury, including bodily injury, disability or death, or damages to property, including loss of the use thereof, in any way attributable to or in connection with performance of the Contractor under this Contract.

ARTICLE 8—OTHER WORK AT THE SITE

ARTICLE 8 ADD the following new paragraph immediately after Paragraph 8.03:

SC-8.04 *Claims Between Contractors*

- A. Should Contractor cause damage to the work or property of any other contractor at the Site, or should any claim arising out of Contractor's performance of the Work at the Site be made by any other contractor against Contractor, Owner, Engineer, or the construction coordinator, Contractor shall promptly attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by arbitration or at law.
- B. Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner, Engineer, the construction coordinator and the officers, directors, partners, employees, agents and other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages (including, but not limited to, fees and charges of engineers, architects, attorneys, and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any other

contractor against Owner, Engineer, Engineer's Consultants, or the construction coordinator to the extent said claim is based on or arises out of Contractor's performance of the Work. Should another contractor cause damage to the Work or property of Contractor or should the performance of work by any other contractor at the Site give rise to any other Claim, Contractor shall not institute any action, legal or equitable, against Owner, Engineer, or the construction coordinator or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from Owner, Engineer, or the construction coordinator on account of any such damage or Claim.

C. If Contractor is delayed at any time in performing or furnishing Work by any act or neglect of another contractor, and Owner and Contractor are unable to agree as to the extent of any adjustment in Contract Times attributable thereto, Contractor may make a Claim for an extension of times in accordance with Article 12. An extension of the Contract Times shall be Contractor's exclusive remedy with respect to Owner, Engineer, and construction coordinator for any delay, disruption, interference, or hindrance caused by any other contractor. This paragraph does not prevent recovery from Owner, Engineer, or construction coordinator for activities that are their respective responsibilities.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.11 Evidence of Financial Arrangements

SC-9.11 ADD the following new paragraph immediately after Paragraph 9.11.A:

B. On request of Contractor prior to the execution of any Change Order involving a significant increase in the Contract Price, Owner shall furnish to Contractor reasonable evidence that adequate financial arrangements have been made by Owner to enable Owner to fulfill the increased financial obligations to be undertaken by Owner as a result of such Change Order.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.03 Resident Project Representative

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

C. The Resident Project Representative (RPR) will be Engineer's representative at the Site. RPR's dealings in matters pertaining to the Work in general will be with Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The RPR will:

1. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor's safety meetings), and as appropriate prepare and circulate copies of minutes thereof.
2. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.
3. *Liaison*
 - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.

- c. Assist in obtaining from Owner additional details or information, when required for Contractor's proper execution of the Work.
- 4. *Review of Work; Defective Work*
 - a. Conduct on-Site observations of the Work to assist Engineer in determining, to the extent set forth in Paragraph 10.02, if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Observe whether any Work in place appears to be defective.
 - c. Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection or approval.
- 5. *Inspections and Tests*
 - a. Observe Contractor-arranged inspections required by Laws and Regulations, including but not limited to those performed by public or other agencies having jurisdiction over the Work.
 - b. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work.
- 6. *Payment Requests: Review Applications for Payment with Contractor.*
- 7. *Completion*
 - a. Participate in Engineer's visits regarding Substantial Completion.
 - b. Assist in the preparation of a punch list of items to be completed or corrected.
 - c. Participate in Engineer's visit to the Site in the company of Owner and Contractor regarding completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.
 - d. Observe whether items on the final punch list have been completed or corrected.

D. The RPR will not:

- 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
- 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
- 3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
- 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction.
- 5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
- 6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
- 7. Authorize Owner to occupy the Project in whole or in part.

E. If discrepancies exist between Paragraphs 16.03 and Engineer/Owner Agreement, then Engineer's Agreement with the Owner shall hold precedence.

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

SC-10.06 AMEND the language in the first sentence of Paragraph 10.06.A to read as follows:

"Engineer will, with reasonable promptness, render a written recommendation or decision regarding the requirements of the Contract Documents..."

SC-10.06 ADD the following sentence at the end of Paragraph 10.06.A:

The date of the Engineer's recommendation/decision shall be the date it is rendered in writing and provided to both parties.

ARTICLE 11—CHANGES TO THE CONTRACT

11.09 *Change Proposals*

SC-11.09.B.4 AMEND the first sentence of Paragraph 11.09.B.4 to read as follows:

CHANGE the language from "either approve" to "either recommend approval of" and CHANGE "deny" to "recommend denial of".

ARTICLE 12—CLAIMS

No suggested Supplementary Conditions in this Article.

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

13.03 *Unit Price Work*

SC-13.03.E DELETE Paragraph 13.03.E in its entirety and INSERT the following in its place:

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the extended price of a particular item of Unit Price Work amounts to **five** percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than **25** percent from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.
4. If there is no corresponding adjustment with respect to any other item of Work; and
5. If Contractor believes that Contractor has incurred additional expense as a result thereof or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, either Owner or Contractor may make a Claim for an adjustment in the Contract Price in

accordance with Article 12 if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.

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

14.02 Tests, Inspections, and Approvals

SC 14.02 ADD the following new sentence immediately after the first sentence of Paragraph 14.02.A:

Timely notice shall be as stated in the appropriate specification and no less than 24 hours prior to scheduling the Work.

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

15.01 Progress Payments

SC 15.01.B.1 DELETE the first sentence of Paragraph 15.01.B.1 ADD the following new subparagraph:

On or before the 1st day of each month, Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed by the last day of the previous month, accompanied by such supporting documentation as is required by the Contract Documents.

SC 15.01.B.4 DELETE Paragraph 15.01.B.4 in its entirety and INSERT the following in its place:

4. In any contract described herein, of which the total amount is Two Hundred Fifty Thousand Dollars (\$250,000.00) or greater, or on any contract with a subcontractor, regardless of amount, five percent (5%) shall be retained until the work is at least fifty percent (50%) complete, on schedule and satisfactory in the engineer's opinion, at which time fifty percent (50%) of the retainage held to date shall be returned to the prime contractor for distribution to the appropriate subcontractors and suppliers. Provided, however, that future retainage shall be withheld at the rate of two and one-half percent (2-1/2%). On monthly estimates subsequent to the first estimate submitted that includes invoices for stored materials for which payment to the Contractor has been made, there shall be a signed statement that the invoices have been paid by the Contractor.

SC 15.01.D.1 DELETE Paragraph 15.01.D.1 in its entirety and INSERT the following in its place:

- I. Ten days after approval of the Application for Payment by Owner, the amount recommended by Engineer (subject to any Owner setoffs) will become due, and when due will be paid by Owner to Contractor.

15.06 Final Payment

SC 15.06.E AMEND the second sentence of Paragraph 15.06.E to read as follows:

CHANGE the language from "30 days" to "60 days".

15.07 Waiver of Claims

SC 15.07 DELETE Paragraph 15.07 in its entirety.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

No suggested Supplementary Conditions in this Article.

ARTICLE 17—FINAL RESOLUTIONS OF DISPUTES

17.01 *Methods and Procedures*

SC17.01 DELETE Paragraph 17.01 in its entirety and INSERT the following in its place:

17.01 *Meet to Confer and Negotiate*

- A. Within 30 days of notice of Engineers recommended action under 11.09.B, 11.09.C, and 12.01.C, Owner or Contractor may give to the other party written notice of intent to submit the Claim to a process of bilateral negotiations as set forth below.
- B. Within 30 days of the delivery of such notice, Owner and Contractor shall meet and confer regarding the Claim. A good-faith effort to negotiate resolution shall be made by both parties.
- C. If the negotiations contemplated by Paragraph SC-17.01.B are unsuccessful, management representatives of Owner and Contractor at least one tier above the individuals who met under SC-17.01.B shall meet, confer, and negotiate within 30 days of the closure of the unsuccessful negotiations.
- D. If the Claim is not resolved by negotiation, Engineer's action or denial under Paragraph 11.09.B, 11.09.C, or 12.01.C may be submitted to a court of competent jurisdiction to be determined or the parties may agree to submit the claim to another dispute resolution process.
- E. Nothing in this article shall be deemed to prohibit or interfere with the rights of the parties to file a court action where necessary to preserve their rights to proceed with litigation.

ARTICLE 18—MISCELLANEOUS

18.07 *Controlling Law*

SC-18.07 DELETE Paragraph 18.07.A in its entirety and INSERT the following in its place:

- A. The terms and conditions of this Contract shall be construed and interpreted under, and all respective rights and duties shall be governed by, the laws of the State of Mississippi. Wherever applicable, each provision of these Contract Documents shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of these Contract Documents shall be prohibited by or invalid under applicable law, such provisions shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of these Contract Documents.
- B. This Contract shall not be construed more strictly against one party than the other merely by virtue of the fact that it may have been prepared by one of the parties.

SECTION 01000 – GENERAL REQUIREMENTS

PART 1 – GENERAL

- 1.01 This specification outlines the general requirements for all specifications that reference this section. These requirements are complementary to the General Conditions of the Contract included in the Contract Documents, and are not intended to duplicate or contradict those General Conditions. Contradictions shall be brought to the attention of the Engineer.
- 1.02 In resolving inconsistencies in the Contract Documents, the Contractor shall give precedence in the following order:
 - A. Contract
 - B. Supplementary Conditions
 - C. General Conditions
 - D. Specifications
 - E. Drawings
- 1.03 Figure dimensions on drawings shall take precedence over scale dimensions; detail drawings shall take precedence over general drawings. In case of a discrepancy between specifications and drawings or between various specification sections, the most expensive shall apply.
- 1.04 RELATED SECTIONS
 - A. Contract Forms
 - B. Conditions of the Contract
 - C. Technical Specifications
- 1.05 PAYMENT
 - A. Payment for work in this section shall be included in the lump sum and/or unit price item(s) in the Bid. Unless a specific line item has been provided in the Bid Form, any Work associated with this Section shall be considered incidental.
- 1.06 REFERENCES
 - A. The publications listed below form part of these specifications. Each publication shall be the latest revision and addendum in effect on the date this Project Manual is issued for construction. Except as modified by the requirements specified herein or the details of the drawings, Work included in these specifications shall conform to the applicable provisions of the following publications:

AA	Aluminum Association
AAMA	Architectural Aluminum Manufacturer's Association
AASHTO	American Association of State Highway and Transportation Officials
ABPA	Acoustical and Board Products Association
ACI	American Concrete Institute
ADA	American Disabilities Act
AGA	American Gas Association
AGMA	American Gear Manufacturers Association
AIEE	American Institute of Electrical Engineers
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ANSI	American National Standards Institute
APA	American Plywood Association
API	American Petroleum Institute
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers, Inc.
ASME	American Society of Mechanical Engineers
ASSCBC	American Standard Safety Code for Building Construction
ASTM	American Society for Testing and Materials
AWI	American Woodwork Institute
AWPA	American Wood Preservers Bureau
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturer's Association
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard
EPA	United States Environmental Protection Agency
Fed. Sec. (FS)	Federal Specifications
HI	Hydraulic Institute
HMI	Hoist Manufacturers Institute
IBC	International Building Code
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronics Engineers, Inc.
ICEA	Insulated Cable Engineers Association
NBHA	National Builders Hardware Association
NBS	National Bureau of Standards
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NESC	National Electric Safety Code
NFPA	National Fire Protection Association
NLMA	National Lumber Manufacturers Association
NSF	National Science Foundation
NWMA	National Woodwork Manufacturers Association

OSHA	Occupational Safety and Health Act (both Federal and State)
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
PS	Product Standards Section – U.S. Department of Commerce
RMA	Rubber Manufacturers Association
SAE	Society of Automotive Engineers
SDI	Steel Door Institute
SJI	Steel Joists Institute
SSPC	Steel Structures Painting Council
STD SPEC	Mississippi Standard Specifications for Road and Bridge Construction
TCA	Tile Council of America
UL	Underwriters Laboratories, Inc.
WWPA	Western Wood Products Association

1.07 APPLICABLE REFERENCES AND CODES

- A. All references to codes, specifications, and standards referred to in specification sections and on drawings shall mean latest edition, amendment or revision of such reference standard in effect as of the date of these Contract Documents. In case of a conflict between referenced document and Project specifications, Project Specifications will govern. If there is a conflict with applicable codes and laws, Contractor shall immediately notify Engineer before proceeding with Work. In case of a conflict between Contract Documents and the law, the law will govern.
- B. The governing building codes shall be as referenced in the Specifications and notes on Drawings. Building codes are subject to change from the time Projects are designed/engineered to the time the Contract is let. Any discrepancies determined by the Building Official or Contractor shall immediately be brought to the Engineer's attention.

1.08 CONTRACT DOCUMENTS

- A. The Contract Documents are intended to provide the owner with a complete, fully functional and operational system and/or building.
- B. The Contract Documents are intended to define the general design and scope of the work required for completion. The Contractor shall include all components normally incidental to the work. Those components which are not specified or shown on the drawing but which are required as an essential aesthetic, functional, or code required element of the Work shall be included on the Contract. All miscellaneous appurtenances shall be considered included in the applicable unit prices or lump sum prices bid for the Work regardless if these appurtenances and items are specifically called for in the specifications.

- C. The contract documents are complementary; that which is required by any one shall be as binding as if required by all.
- D. Work not covered in the specifications and drawings will not be required, unless it is consistent therewith and is reasonably inferable therefrom as being necessary to produce intended results.
- E. Written interpretations of specifications and drawings are valid only when issued by the Engineer.
- F. Words and abbreviations which have well-known technical or trade meanings are used in the specifications and drawings in accordance with such recognizable meanings.
- G. Where custom built equipment is specified, and an independent testing laboratory label or listing is not applicable to the completed product, components used in the construction and assembly of such equipment must be labeled or listed by an independent testing laboratory acceptable to the local governing authorities, where such label or listing is applicable to the components. These labels shall be securely affixed to the components in a conspicuous location.

1.09 DRAWINGS

- A. Construction Drawings are diagrammatic, intending to illustrate general locations and arrangements of components, structures, piping, wiring, equipment, and specialties and not necessarily showing the required offsets, connections, or appurtenances. Accurately lay out work in coordination with other trades to avoid conflicts and to obtain a neat and workmanlike installation which will afford maximum practical accessibility for operation, maintenance, and headroom.
- B. Layout in field from electronic drawings shall be at the risk of the Contractor. The Contractor is responsible for placement/location of objects as detailed or noted in the drawings. If the Contractor does not have sufficient information to place/locate objects, then the Contractor shall immediately bring their concerns to the attention of the Engineer prior to ordering materials and starting Work.
- C. Drawing scale is selected for convenience in presentation and not for establishment of dimensions.
 - 1. Use drawing dimensions for performance of Work.
 - 2. Verify actual dimensions at the site to determine that sufficient space exists and that no interference will be caused.
- D. Omitted words or phrases shall be supplied by inference in the same manner as they are when a "note" occurs on the Drawings.

- E. Where on any of the Drawings a portion of the Work is drawn out and the remainder is indicated in outline, the parts drawn out shall apply also to all other portions of the Work.
- F. Wherever a detail is referenced and developed for a specific condition, same or similar detail shall apply to identical or similar conditions elsewhere on the Project even though not specifically referenced.
- G. Where the word "similar" occurs on the Drawings, it shall be interpreted in its general sense and not as meaning identical, all details shall be worked out in relation to their location and their connection with other parts of the Work.

1.10 SPECIFICATIONS

- A. Specifications are divided into Divisions and Sections for the convenience of writing and using. Titles are not intended to imply a particular trade jurisdiction. The Engineer and/or Owner is not bound to define the limits of any subcontract, and will not enter into disputes between the Contractor and his employees, including Subcontractors.
- B. Pages are numbered independently for each Section, and recorded in the Table of Contents. Section number is shown with the page number at the bottom of each page. The end of each Section of the specifications is ended by "End of Section". It is the Contractor's responsibility to verify that Contract Documents received for bidding and/or construction are complete in accordance with the Table of Contents.
- C. The language employed in the Contract Documents is addressed directly to the Contractor. Imperative or indicative language is generally employed throughout and requirements expressed are the mandatory responsibility of the Contractor, even though the Work specified may be accomplished by specialty subcontractors engaged by the Contractor. References to third parties in this regard shall not be interpreted in any way as to relieve the Contractor of his or her responsibility under this Contract.
- D. These Specifications are of the abbreviated or "streamlined" type, and may include incomplete sentences.
- E. Omissions of words or phrases such as "the Contractor shall", "in conformity therewith", "shall be", "as noted on the Drawings", "according to the Drawings", "a", "an", "the" and "all" are intentional.

1.11 SUBMITTALS

- A. Refer to Section 01330 – Submittals for coordination, procedures and requirements.

- B. Schedule of Values: The Contractor shall prepare a detailed Schedule of Values to be used for estimating progress of the Work. The Schedule of Values used shall address each individual section of the specifications and be subdivided in sufficient detail listing separate subcategories of work according to labor and material. The Engineer and Owner reserve the right to request modifications to the breakdown to address individual items if required.
- C. Shop Drawings, Product Data and Samples shall comply with individual specification section requirements and as follows:
 - 1. Shop Drawings shall be of sufficient size to clearly detail, demonstrate, and convey information. Illegible shop drawings will be rejected.
 - 2. Product data shall be submitted as discussed and agreed upon at the Pre-Construction conference.
 - 3. Submit samples in a quantity of three (3), unless noted otherwise in the Contract Documents – one to be retained by the Engineer, one to be retained at the construction site, and one to be returned to the originator after approval.
 - 4. Approval indicates conformance to Contract Documents (not performance, code compliance, dimensions, or quantities) and does not constitute approval to vary from Contract Documents. Resubmit disapproved shop drawings, product data, and samples for approval in the same manner as for the first submittal.
 - 5. No portion of the work requiring shop drawings, product data or sample approval shall be started until Engineer approval is obtained in writing.
- D. Record Documents: Refer to Section 01330 – Submittals for Record Document information.
- E. Close-Out Documents: Refer to Section 01330 – Submittals and Section 01700 Contract Closeout for close-out requirements.

1.12 QUALITY ASSURANCE

- A. The Contractor shall coordinate and obtain all necessary permits and approvals or guidelines from governing regulatory agencies before proceeding with any items of Work under or within such jurisdiction(s).
- B. Building permits, if required, shall be paid by the Contractor.
- C. The Contractor shall be responsible for verifying the exact locations of all existing underground utilities with providers.

D. The Contractor shall subcontract with suppliers and fabrication and installation companies which can demonstrate they possess the knowledge, experience, and proven capabilities to fully perform all aspects of the Work required without omission.

1.13 PROJECT/SITE CONDITIONS

- A. For additional Project and/or Site Conditions, refer to Section 01142 – Use of Site and Section 01500 – Temporary Facilities and Controls.
- B. The Contractor shall be responsible for providing the necessary utilities including, but not limited to, water, waste, temporary power, gas, and communications to perform the Work to the site, if required. The Contractor shall also be responsible for providing and maintaining waste facilities (chemical toilets), if needed.
- C. The Contractor shall be responsible for providing potable water to the site if required. The Contractor shall also be responsible for providing sewer facilities (chemical toilets), dumpster service, and other services as required.

1.14 SAFETY

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work as described in the General Conditions of the Construction Contract. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall 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, Materials and equipment to be incorporated therein.
 3. Other property at the Site or adjacent thereto.
- C. All Contractors and subcontractors acknowledge their obligation to comply with all applicable Federal, State and local acts and regulations, and, without limiting this obligation, and in addition to all other indemnities provided for in this Contract, agree to comply with all requirements of the Occupational Safety and Health Act of 1970 (OSHA), including latest amendments.
- D. Material and equipment incorporated into the Project, which by their nature are governed by OSHA regulations, shall conform to said OSHA regulations, for both manufacturer and installation. Material and/or installation that does not conform to said OSHA regulations shall be

corrected by responsible Contractor to comply with such regulations at no additional cost to Owner or Engineer.

1.15 EMERGENCIES

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. In the event of such an emergency, the Contractor shall act without previous instructions from the Owner or Engineer, as the situation may warrant.
- B. If serious injury or damage occurs, the accident shall be reported immediately to the Engineer and to appropriate local authorities. In addition, the Contractor must promptly report in writing to the Engineer all accidents in connection with the work, giving full details, names and statements of witnesses.
- C. If a claim is made by anyone against the Contractor or any subcontractor resulting from an accident, the Contractor shall promptly report the facts in writing to the Engineer, giving full details of the claim, including investigating and restitution.

1.16 COMPLAINTS

- A. All complaints received by the Contractor shall be reported to the Engineer no later than the working day following receipt thereof. Such reports shall include the name, address, date, time received, date and type of action complained above, and a brief description of the alleged damages or other circumstances upon which the complaint is predicated. Each complaint shall be assigned a separate number, and all complaints shall be numbered consecutively in order of receipt. In the event more than one complaint is received from the same complainant, each later complaint shall show all previous complaint numbers registered by the same complainant. In addition, a summary report shall be made to the Engineer each month which shall indicate the date, time, and name of the person investigating the complaint and the amount of damages claimed (or estimated thereof), including the amount of settlement, if any. When settlement of a claim is made, the Engineer shall be furnished with a copy of the release of claim by the claimant. The Owner shall be notified immediately, throughout the statutory period of liability, of any formal claims or demands made by attorneys on behalf of claimants; of the serving of any notice, summons, subpoena, or other legal documents incidental to litigation; and for any out of court settlement or court verdicts resulting from litigation.

PART 2 – PRODUCTS

2.01 GENERAL

- A. Substitution for items described in the Contract Documents will be specified in Section 01632 - Substitutions and Product Options, and in the General Conditions.

PART 3 – EXECUTION

3.01 FIELD QUALITY CONTROL

- A. Workmanship completed under this work shall be first class in every respect. Surfaces, members, frames, and units shall be true, even, and in alignment. No warped, bent, dented, or otherwise damaged members or units shall be built into the work. Connections shall be true, tight, and neat. Arises, soffits, and intersections shall be straight and true. Finishes shall be free from chips, dents, or other imperfections not in conformity with first-class work.
- B. Factory assemblies shall conform to the first-class standards of the trades concerned.
- C. Defective materials shall not be built in and, if built in, shall be removed at the Contractor's expense. Where, in the opinion of the Construction Manager or Owner, doubt exists as to the quality or effectiveness of the work, the work shall be reinstalled as directed.

3.02 CLEANUP

A. DAILY CLEANUP

1. Areas covered by the Contract and associated public properties shall be free from accumulations of waste, debris, and rubbish caused by construction operations at all times.
2. Remove from the site or place in appropriate containers all crates, cartons, trash and flammable waste materials from the work areas by the end of each working day. Such containers shall be incidental and provided by the Contractor.
3. Do not burn or bury rubbish, debris, or waste materials on the project site or dispose of volatile wastes such as mineral spirits, oil, chemicals, or paint thinner in storm or sanitary drains. Disposal of waste, debris, and rubbish into streams or waterways is prohibited. Cleaning and disposal operations shall comply with local ordinances and anti-pollution laws.
4. Excavated materials shall be removed from the site in a manner that will cause the least damage to adjacent lawns, grassed areas,

trees, gardens, shrubbery, or fences regardless of whether these are on private property or on public rights-of-ways.

5. Clean and restore any finished surface which is defaced in any way.

B. FINAL CLEANUP

1. Prior to the Engineer's final site inspection, thoroughly clean the site by removing all trash and debris, cleaning any/all drainage structures, and verify all erosion control is in place and structurally sound.

END OF SECTION

SECTION 01010 – SUMMARY OF WORK

PART 1 – GENERAL

1.01 PROJECT

- A. Project Name: JACKSON COUNTY FAIRGROUNDS NEW EQUIPMENT STORAGE BLDG
- B. Owner's Name: JACKSON COUNTY BOARD OF SUPERVISORS
- C. Engineer's Name: DEAN STRUCTURAL ENGINEERS, INC.
- D. Project Description: This project consists of furnishing all labor, materials and equipment to construct, complete and ready for utilization a new 2000 sq. ft. Pre-Engineered Metal Building (PEMB). The project scope includes, but is not limited to: Site Work, Foundation System, PEMB System, Electrical Work, and other items per the Construction Documents.

1.02 CONTRACTS

- A. Construct Work under a Single Lump Sum Contract.

1.03 SCHEDULE OF VALUES

- A. Before beginning work, the Contractor shall submit a Breakdown of Costs covering in detail all phases of the work.

1.04 WORK SCHEDULE

- A. Construct work to accommodate the Owner's use within one hundred twenty (120) Calendar Days from issuance of Notice to Proceed.

1.05 START OF WORK

- A. Commence work immediately upon issuance of a "Notice to Proceed" Order from the Owner and Contract documents have been executed, and all required Bonds and Insurances are in force.

1.06 COORDINATION

- A. It shall be the responsibility of the General Contractor to properly coordinate the project work with that of the separate contractor's or subcontractor's work. Refer to Section 01310 – Project Management and Coordination.
- B. Before beginning any work, the successful Contractor and subcontractor shall develop a schedule of operation covering the details of each phase of work and shall submit such schedules to the Owner for approval. Any changes required by the Owner shall be strictly adhered to by all contractors and subcontractors.

- C. The General Contractor and all subcontractors shall cooperate with other contractors to facilitate the general progress of the work. Each trade shall afford all other trades every reasonable opportunity for the installation of their work.
- D. The General Contractor and all subcontractors shall provide a designated superintendent for the full duration of the project.

1.07 CONTRACTOR'S DUTIES

- A. Except as specifically noted, provide and pay for labor, materials, equipment; tools, construction equipment and machinery; utilities required for construction; and other facilities and services necessary for proper execution and completion of work.
- B. Pay legally required sales, consumer and use taxes. The Owner reserves the right to require evidence of payment prior to final payment.
- C. Secure and pay for permits, fees, and licenses as necessary for proper execution and completion of work and as applicable at the time of receipt of Bids. The Owner reserves the right to require evidence of payment prior to final payment.
- D. Give required notices.
- E. Comply with codes, ordinances, rules, regulations, orders and other requirements of public authorities, which bear on performance of work.
- F. Promptly submit written notice to the Engineer of observed variance of Contract Documents from legal requirements. It is not the Contractor's responsibility to make certain that Drawings and Project Specifications comply with codes and regulations. Where a conflict exists which would create additional cost of changes to the work other than as designed, the conflict shall be submitted to the Owner in writing before commencing work, and a decision shall be made instructing the Contractor as to how to proceed. The Contractor shall assume responsibility for work known to be contrary to code requirements without such written notice.
- G. Enforce strict discipline and good order among employees. Do not employ unfit persons or those not skilled in assigned work.
- H. Examine site before submitting proposal for this Work. All proposals shall take into consideration all conditions as may affect the work under this Contract.
- I. Examine in detail all Drawings, Specifications, Addenda and all other Contract Documents.
- J. Submission of Proposal implies that Bidder is conversant with all requirements of Section 1.07(H) and Section 1.07 (I) above. No additional

compensation will be paid to any successful Bidder due to his failure to observe all requirements.

- K. The Contractor shall verify all grades, lines, levels and dimensions as shown on the Drawings and he shall report any errors or inconsistencies in the above to the Engineer before commencing work.
- L. Erect and maintain necessary fencing, barricades, covered walks, guard lights, etc., to protect the public during construction operations. Provide protective railing around elevations, places, and dangerous openings in the construction. Make provisions for substantial ladders and scaffolding as required to reach different parts of the work safely and conveniently.
- M. The General Contractor is responsible for the coordination of the total project. All other Contractors and all Subcontractors will cooperate with the General Contractor so as to facilitate the general progress of the work. Each trade shall afford all other trades every reasonable opportunity for the installation of their work.

1.08 CONTRACTOR'S USE OF PREMISES

- A. Confine operations at site to areas permitted by law, ordinances, permits, Contract Documents and the Owner.
 - 1. Do not unreasonably encumber site with materials or equipment.
 - 2. Do not load structure with weight, which will endanger structure.
 - 3. Assume full responsibility for protection and safekeeping of products stored on premises with operations of Owner.
- B. Move any stored products which interfere with operations of Owner.
- C. Obtain and pay for the use of additional storage or work areas needed for operations.
- D. Secure Owner's approval for location of temporary facilities and routing of traffic to job site.
- E. Limit use of site for work and storage.
- F. All are cautioned not to leave material unsecured overnight.
- G. Coordinate use of premises under direction of the Owner.
- H. Arrange use of site and premises to allow Owner occupancy of existing buildings.

1.09 STANDARDS

- A. Any material specified by reference to the number, symbol or title of a specific standard such as a Commercial Standard, a Federal Specification, a trade association standard, or other similar standard, shall comply with the latest revision thereof and any amendment or supplement thereto, in effect on the date of invitation for bids, except as limited to type, class or grade, or modified in such reference.
- B. The standards referred to, except as modified in the specifications, shall have full force and effect as though printed in the specification. These standards are not furnished to bidder for the reason that the manufacturers and trade involved are assumed to be familiar with their requirements. The Engineer will furnish, upon request, information as to how copies of the standards referred to may be obtained.
- C. Reference in the specifications to any article, device, product, materials, fixture, form or type of construction by name, make or catalog number shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition, and the Contractor in such cases, may at his option use any article, device, product, material, fixture, form, or type of construction which in the judgment of the Engineer expressed in writing is equal to that specified.
- D. Underwriter Laboratory (UL) Listing: The Contractor shall submit proof that items which he proposes to furnish under this specification conforms to the standards of a nationally recognized testing organization. The label of the nationally recognized testing organization shall be accepted as conforming to this requirement. In lieu of the label, the Contractor may submit a written certification from any nationally recognized testing agency, adequately equipped and competent to the standards including equipped and competent to the standards including methods of testing of the nationally recognized testing agency.

1.10 OCCUPANCY REQUIREMENTS

- A. Partial Owner Occupancy: The Owner reserves the right to occupy areas of the site prior to substantial completion, provided such occupancy does not interfere with the completion of the Work. Such placing of equipment and partial occupancy shall not constitute acceptance of the total work.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01014 – PROTECTION OF THE ENVIRONMENT

PART 1 – GENERAL

1.01 This section describes the Contractor's responsibilities as it relates to protecting the environment of the Project Site. The Contractor, in executing the work, shall maintain all work areas on and off the site free from environmental pollution that would be in violation of any federal, state, or local regulations.

1.02 RELATED REQUIREMENTS

A. Technical Specifications.

1.03 PAYMENT

A. Payment for work in this section shall be included in the lump sum and/or unit price item(s) in the Bid. Unless a specific line item has been provided in the Bid Form, any Work associated with this Section shall be considered incidental.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 PROTECTION OF WATERWAYS

- A. The Contractor shall comply with all laws prohibiting the pollution of any lake, stream, river, or wetland by the dumping of, or the delivery of any runoff water containing any refuse, rubbish, dredge material, or debris herein.
- B. The Contractor shall comply with the procedures outlined in the U.S. Environmental Protection Agency manuals entitled, "Guidelines for Erosion and Sediment Control Planning and Implementation", and "Processes, Procedures and Methods to Control Pollution Resulting from All Construction Activity" and shall incorporate adequate measures to minimize delivery of sediment from the construction site to adjacent or downstream trees, lands, or water bodies.

3.02 PROTECTION OF SEWERS

- A. Take adequate measures to prevent the impairment of the operation of the existing sewer system. Prevent construction material, pavement, concrete, earth, or other debris from entering a sewer or sewer structure.

3.03 NOISE AND DUST CONTROL

- A. The Contractor shall so conduct all his operations that they will cause the least annoyance to the residents in the vicinity of the work, and shall comply with all applicable laws. Vehicles carrying rock, concrete, or other materials shall be routed over such streets as will cause the least annoyance to the public and shall not be operated on public streets

between the hours of 8 p.m. and 7 a.m. or on Sundays or legal holidays unless the Contractor obtains written permission from appropriate agencies within the municipality in which the Work is to be conducted.

B. All unpaved streets, roads, detours, haul roads, or roads used in the construction area shall be given a dust preventative treatment or periodically watered to prevent dust. Applicable environmental regulations for dust preventions shall be strictly enforced.

3.04 CLEANING DURING CONSTRUCTION

A. At all times, maintain areas covered by the Contract and public properties free from accumulations of waste, debris, and rubbish caused by construction operations.

B. Excavated materials shall be removed from the site in a manner that will cause the least damage to adjacent lawns, grassed areas, trees, gardens, shrubbery, or fences regardless of whether these are on private property or on public rights-of-ways.

C. Cleaning and disposal operations shall comply with local ordinances and anti-pollution laws. Do not burn or bury rubbish, debris, or waste materials on the project site or dispose of volatile wastes such as mineral spirits, oil, chemicals, or paint thinner in storm or sanitary drains. Disposal of waste, debris, and rubbish into streams or waterways is prohibited.

D. Appropriate containers for collection and disposal of waste materials, debris, and rubbish shall be provided by the Contractor.

END OF SECTION

SECTION 01016 – PROTECTION OF PROPERTY

PART 1 – GENERAL

1.01 This section describes the Contractor's responsibilities as it relates to protecting the property and safety of the Project Site.

1.02 RELATED SECTIONS

A. Technical Specifications

1.03 PAYMENT

A. Payment for work in this section shall be included in the lump sum and/or unit price item(s) in the Bid. Unless a specific line item has been provided in the Bid Form, any Work associated with this Section shall be considered incidental.

1.04 NOTICE OF WORK

A. At least 7 days prior to move in, the Contractor shall notify all public and private entities of his mobilization efforts in the following manner:

1. A letter directed to the County Administrator/City Manager/Mayor.
2. A letter directed to the Manager of the Utility District/Authority.
3. Written notice provided to the local Sheriff's Office, Police Department, Fire Department, and Utilities serving the area.

1.05 PROJECT / SITE CONDITIONS

A. Protection of Property: The Contractor shall employ such means and methods as necessary to adequately protect all property against damage. In the event of damage to property, the Contractor shall, at his own expense, immediately restore the property to a condition at least equal to its original condition and to the satisfaction of the Engineer.

B. Tree Removal: No trees, except those specifically shown on the drawings to be removed, shall be removed without the express approval of the Engineer. Removed trees will be disposed of off the work site by the Contractor. Where construction passes under the drip line of hardwood trees and 12" plus diameter pine, the Contractor shall protect the trees from damage during construction.

C. Preservation of Drainage Ditches: After backfilling of excavations, restore all drainage ditches destroyed, damaged, or otherwise modified during construction to a condition equivalent to the condition of the ditch before construction. Ditches so reconstructed shall be built in their original locations and cross section or as otherwise shown on the drawings.

D. Street Cleanup during Construction: Tracking or dropping of dirt or other materials from the site onto any public or private street shall be minimized.

The Contractor shall clean all spilled dirt, gravel, or other foreign material caused by the constriction operations from all streets and roads at the conclusion of each day's operation.

- E. Finishing of Site, Borrow and Storage Areas: When the project is finished, the Contractor must clear all temporary structures, debris, and waste from the used areas. These areas should be graded to properly drain and seamlessly blend with the surrounding property. Areas used for the deposit of waste materials shall be finished to properly drain and blend with the surrounding terrain.
- F. Reseeding and Fertilizing: Originally seeded areas shall be fertilized and reseeded with first quality seed or planted with new sod as approved by the Owner. All ground preparation, reseeding, and sodding shall be done in accordance with the best accepted practices for lawn planting. The Contractor shall be responsible for obtaining a satisfactory grass turf acceptable to the Owner, or as otherwise shown on the Drawings.
- G. Stockpile excavated materials in a manner that will cause the least damage to adjacent lawns, grassed areas, gardens, shrubbery, or fences, regardless of whether they are on private property, or on state, county, or city rights-of-ways. Remove all excavated materials from grassed and planted areas, and leave these surfaces in a condition equivalent to their original condition. Replace top soiled areas where pipeline installations are outside of roadways. The Contractor shall rake and grade these areas to conform to their original contour and seed flat areas and sod all areas with a slope greater than 2 to 1.
- H. All existing drainage ditches and culverts shall be reopened and graded and natural drainage restored. Restore culverts broken or damaged to their original condition and location.
- I. Upon completion of pipe laying backfilling operation, hand-rake and drag all former grassed and planted areas, leaving all disturbed areas free from rocks, gravel, clay, or any other foreign material and ready, in all respects, for seeding. The finished surface shall conform to the original surface, and shall be free draining and free from holes, ruts, rough spots, or other surface features detrimental to a seeded area.
- J. The Contractor shall be responsible for erosion control for the entire project site throughout the construction term and shall take preventative measures for keeping erosion from occurring.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01142 - USE OF SITE

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. The Drawings and general provisions of the Contract, including General and Supplemental Conditions and Division 1 specification sections apply to the work specified in this Section.

1.02 SUMMARY

- A. This Section includes requirements for restricted use of premises for owner occupied areas. Contractor shall restrict personnel from entering existing buildings beyond work areas without prior permission from Owner.

1.03 USE OF PREMISES

- A. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to areas indicated on drawings and areas as defined by Owner.
 - 2. Owner Occupancy: Allow for Owner occupancy of site.
 - 3. Entrances: Keep building entrances serving premises clear and available to Owner, Owner's employees, tenants, users and patrons at all times.
 - a. Schedule deliveries to minimize use of building entrances.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01310 – PROJECT MANAGEMENT AND COORDINATION

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. The Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 specification sections apply to the work specified in this Section.

1.02 SUMMARY

- A. This section includes administrative provisions for procedures, conditions and responsibility for coordinating construction operations on the Project including, but not limited to, the following:
 1. General project coordination procedures.
 2. Conservation.
 3. Coordination Drawings.
 4. Administrative and supervisory personnel.
 5. Project meetings.

1.03 PROJECT COORDINATOR

- A. The General Contractor will designate one individual as Project Coordinator or Superintendent.
 1. Prior to beginning work, the name and qualifications of the Project Coordinator shall be submitted, in writing, to the Owner. Upon the approval of the Owner, the Project Coordinator will remain until the project is completed and cannot be removed during construction without the prior written consent of the Owner. The General Contractor shall immediately replace the project Coordinator if requested by the Owner.

1.04 SUBMITTALS

- A. Submit name and qualifications of Project Coordinator including education, work experience, personal references, and list of successfully completed projects.

1.05 DUTIES OF PROJECT COORDINATOR

- A. Coordinate the work of all subcontractors and material suppliers.
- B. Supervise the activities of every phase of work taking place on the project.
- C. Take special care to coordinate and supervise the work of the subcontractors.

- D. Establish lines of authority and communication at the job site.
- E. The Project Coordinator must be present on the job at all times that work is taking place.
- F. Assist in obtaining building and special permits required for construction.
- G. Interpretations of Contract Documents:
 - 1. Consult with Owner to obtain interpretations.
 - 2. Assist in resolution of any questions.
 - 3. Transmit written interpretations to concerned parties.
- H. Stop all work not in accordance with the requirements of the Contract Documents.
- I. Coordinate and assist in the preparation of all requirements of Division 1 and specifically as follows:
 - 1. Supervise and control all cutting and patching of other trades' work
 - 2. Schedule and preside at all project meetings.
 - 3. Prepare and submit all construction schedules. Supervise work to monitor compliance with schedules.
 - 4. Administer the processing of all submittals required by the Project Manual.
 - 5. Assist in preparation and be knowledgeable of each entry in the Schedule of Values.
 - 6. Coordinate all required testing.
 - 7. Allocate, maintain and monitor all temporary facilities.
 - 8. Administer the processing of all substitutions.
 - 9. Conduct final inspections and assist in collection and preparations of closeout documents.
 - 10. Direct and execute a continuing cleaning program throughout construction, requiring each trade to dispose of their debris.
 - 11. Maintain up-to-date project record documents.
 - 12. Enforce all safety requirements.
- J. Recommend and assist in the preparation of requests to the Owner for any changes in the contract.

- K. Assist in the preparation and be knowledgeable of each entry in the Application and Certification for Payment.

1.06 SUBCONTRACTOR'S DUTIES

- A. The subcontractor shall coordinate and supervise employees of subcontract in the work accomplished under the subcontract for that portion of the work.
- B. The subcontractor shall:
 1. Conduct work to assure compliance with construction schedule.
 2. Transmit all instructions to his material suppliers.
 3. Cooperate with the Project Coordinator and other subcontractors.

1.07 PRECONSTRUCTION CONFERENCE

- A. Before beginning the work and after the Contract has been awarded, the Engineer will conduct a Preconstruction Conference to discuss construction schedules and procedures, Contractor's use of the site, Contractor's use of existing facilities, Owner's regulations and other matters deemed to the effective performance of the Work.
- B. The conference will be attended by:
 1. Contractor's Office Representative.
 2. Contractor's General Superintendent.
 3. Any subcontractor's or supplier's representative whom the Contractor may desire to invite or the Engineer may request.
 4. The Owner's Representative(s).
 5. Engineer.

1.08 PROGRESS REVIEW MEETINGS

- A. At intervals determined in the Pre-Construction Conference or as deemed necessary during Construction, a meeting will be held at which time the schedule will be reviewed. The meeting shall be attended by the Contractor's project manager and superintendent and those major subcontractors as determined by the Engineer to be necessary at the time.
- B. Prior to a scheduled meeting, the Contractor shall obtain information to update the Construction Schedule to reflect progress to date. The updated schedule shall be available at the meeting for review. To update the Construction Schedule, the Contractor shall:

1. Enter actual start and completion dates, days, number of shifts used for those activities started and/or completed during the previous reporting period.
2. For activities in progress, indicate the percentage complete to date. Review and revise as necessary the remaining duration of the work from the update to the estimated completion date.
3. For activities not yet started, review and revise as necessary the durations and estimated start and completion dates.
4. Add authorized Change Orders.
5. Updated status information shall be annotated on the Overall Schedule in a manner that the Overall Schedule shall graphically depict the current status of the work.

C. The monthly submittal to the Engineer shall be accompanied by a Project Narrative Report. The Narrative Report shall be brief and include the information described in Section 01330 – Submittals.

1.09 REQUEST FOR INFORMATION (RFI)

- A. Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI on the form specified.
- B. Include a detailed, legible description of item needing information or interpretation and the following:
 1. Project Name.
 2. Project Number.
 3. Date.
 4. Name of Contractor.
 5. Name of Engineer.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Field dimension and conditions, as appropriate.

10. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
11. Contractor's Signature.
12. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
13. Attachments shall be electronic files in Adobe Acrobat PDF format.

C. Engineer will return RFIs submitted to Engineer by other entities controlled by Contractor with no response.

D. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

E. RFI Forms: Software-generated form with substantially the same content as indicated above will be acceptable to the Engineer.

F. Engineer's Action: Engineer will review each RFI, determine action required, and respond. Allow seven (7) working days for Engineer's response for each RFI. Engineer's action may include a request for additional information, in which case Engineer's time for response will date from time of receipt of additional information.

G. If Contractor believed the RFI response warrants change in the Contract time or the Contract Sum, notify the Engineer in writing within ten (10) days of receipt of the RFI response.

H. On receipt of the Engineer's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Engineer within seven (7) days if Contractor disagrees with response.

1.10 SCHEDULES

- A. Submit progress schedules covering Contractor's portion of the Work in accordance with Section 01330 – Submittals.
- B. Whenever it becomes apparent from the current monthly progress evaluation and updated schedule data that the Contract completion date will not be met, the Contractor shall take some or all of the following actions:

1. Increase construction manpower in such quantities and crafts as shall substantially eliminate the backlog of work.
2. Increase the number of working hours per shift, shifts per work day, work days per week, or the amount of construction equipment or any combination of the foregoing sufficient to substantially eliminate the backlog of work.
3. Reschedule work items to achieve concurrency of accomplishment.

C. The addition of equipment or construction forces, increasing the working hours or any other method, manner or procedure to return to the current Overall Schedule, shall not be considered justification for a Change Order or treated as an acceleration order.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have Work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction activities.

- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective covering at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Prohibit traffic from landscaped areas.
- H. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.03 SYSTEM STARTUP

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Engineer and Owner seven (7) days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturer's instructions.
- G. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- H. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.04 DEMONSTRATION AND INSTRUCTION

- A. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to the date of Substantial Completion.
- B. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.
- C. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- D. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction for Owner personnel.
- E. Utilize Operation and Maintenance manuals as basis for instruction. Review contents of manual with Owners personnel in detail to explain all aspects of operation and maintenance.
- F. Prepare and insert additional data in operations and maintenance manuals when the need for additional data becomes apparent during instruction.
- G. The amount of time required for instruction on each item of equipment and system is that specified in individual sections.

3.05 CLOSEOUT PROCEDURES

- A. Notify Engineer in writing when Work is considered ready for substantial Completion. Accompany Engineer and Owner on preliminary inspection to determine items to be listed for completion or correction in Substantial Completion Certificate.
- B. Comply with Engineer's instruction to correct items of work listed in executed certificates of Substantial Completion.
- C. Notify Engineer when Work is considered finally complete. Accompany Engineer on preliminary final inspection.
- D. Comply with Engineer's instructions for completion of items of Work determined from Engineer's and Owner's final inspection.

END OF SECTION

SECTION 01330 – SUBMITTALS

PART 1 – GENERAL

- 1.01 The Work outlined in this Section outlines the general requirements for the items the Contractor is responsible for preparing or compiling for submission throughout the Project. It does not cover all the procedures and requirements for each submittal in detail. The Contractor's attention is directed to the individual specification section in these Contract Documents which may contain in detail additional and special submittal requirements. If the Contractor has any questions related to the process, purpose, or scope of a particular submittal, they should contact the Engineer for clarification.
- 1.02 All submittals shall be addressed to the Engineer at the address provided on the cover of the Project Manual, unless otherwise directed during the Pre-Construction Conference.
- 1.03 The Contractor shall provide submittals, either electronically (pdf) or hard copy, to the Engineer for review as agreed in the Pre-Construction Conference. Should the method of delivery be hard copies, submit the number of copies as agreed in the Pre-Construction Conference.
- 1.04 The Contractor shall submit documents in a timely manner. Not adhering to this requirement may result in the withholding of progress payments and make the Contractor liable for other specified actions and sanctions.

1.05 RELATED REQUIREMENTS

- A. Contract Forms (Part 2)
- B. Conditions of the Contract (Part 3)
- C. Technical Specifications (Part 4)

1.06 PAYMENT

- A. Payment for work in this section shall be included in the lump sum and/or unit price item(s) in the Bid. Unless a specific line item has been provided in the Bid Form, any Work associated with this Section shall be considered incidental. Costs associated with reproductions and resubmittals will also be deemed incidental and should be factored into the Contractor's bid.
- B. With regard to Payment Applications, the Contractor shall be required to submit with their Payment Application current certificate of insurance, updated construction schedule, and an updated narrative report. Failure to include all documents listed may result in the Payment Application being returned without review.

1.07 This section includes administrative and procedural requirements for submittal for of the Work, including the following:

- A. Administrative Submittals: Refer to other Division 01 Sections and Part 3 of the Conditions of the Contract for requirements for administrative submittals. Such submittals may include, but are not limited to, the following:
 1. Schedule of Values.
 2. Construction Schedule.
 3. Schedule of Submittals.
 4. Permits.
 5. Applications for Payment.
 6. Project Narrative Report.
 7. Project Record Documents.
- B. Technical Submittals: Requirements in this section are in addition to any specific requirements for submittal specified in other divisions and sections of the Contract Documents. Refer to Division 01 thru 16 and Part 3 of the Conditions of the Contract for requirements for each technical specification. Such submittals may include, but are not limited to, the following:
 1. Shop Drawings.
 2. Operation and Maintenance (O&M) Manuals
 3. Substitutions and Product Options
 4. Samples.
 5. Quality Assurance.
 6. Contract Close-Out.
 7. Warranty.
 8. Certificates of Compliance.

1.08 ADMINISTRATIVE SUBMITTALS

A. SCHEDULE OF VALUES

1. Submit the Schedule of Values to the Engineer at least ten (10) days after receiving the Notice of Award. Upon Engineer's request, support the values provided with substantiating data.
2. For Lump Sum Bids, submit the Schedule of Values on the electronic Pay Application Form provided at the Pre Construction Conference.
3. Utilize the Table of Contents of this Project Manual. Identify each line item with the number and title of the specification Section. Break down installed cost with overhead and profit. Identify Site mobilization.
4. Itemize separate line item cost for each of the following general cost items: Performance and Payment Bonds, field supervision and layout, and temporary facilities and controls.
5. For each line item which has installed value of more than \$20,000, break down costs to list major projects or operations under each item, rounding figures to the nearest dollar. Make sum of total costs of all items listed in the schedule equal to the total Contract Amount.
6. After Engineer's review, if requested, revise and resubmit Schedule until accepted.

B. CONSTRUCTION SCHEDULE

1. A Preliminary Schedule should be submitted within ten (10) days after the date of Notice of Award and Contract Schedule should be submitted for approval within ten (10) days after the date of Notice to Proceed date. No Work shall commence on site until an approved schedule has been received by the Engineer.
2. Contractor shall prepare a fully developed, horizontal bar chart Construction schedule including all Work in the Contract. Diagram sheet size shall be no less than 11 x 17 (tabloid). Provide a legend for symbols and abbreviations used.
3. Include a separate bar for each major portion of Work or operation. Use the same breakdown of units of the Work as indicated in the unit price bid line items or the "Schedule of Values" from the lump sum bid, approved by the Engineer.
4. Show complete sequence of Construction, with dates for beginning and completion of each element of construction. Include conferences and meetings in schedule.

5. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically the sequences necessary for completion of related portions of the work and graphically indicate the critical path.
6. Indicate completion in advance of the date established for Substantial Completion. Indicate Substantial Completion on the schedule to allow time for the Engineer's procedures necessary for certification of Substantial Completion.
7. Distribute copies of both initial and updated schedules to the Contractor's project site file, Subcontractors, Suppliers, Owner, Engineer and other relevant parties. When revisions are made, ensure these are distributed in a similar manner.
8. Construction schedule should be revised after each meeting, event, or activity where revisions have been made. An updated schedule should be issued with each payment application or monthly, whichever comes first.
9. Comments made by the Engineer on the schedule, or lack of such comments, or rejection or non-rejection of the Contractor's schedule does not relieve the Contractor from compliance with requirements of the Contract Documents, nor do they create any responsibility or duty for scheduling owed from the Owner, or the Engineer to the Contractor. This review, whether accompanied by comments, rejection, or neither, is only for general conformance with the schedule concept of the project and general compliance with the information given in the Contract Documents.

C. SCHEDULE OF SUBMITTALS

1. The Contractor shall provide a schedule outlining each submittal required by the Contract Documents. This schedule should be organized to include the specification section numbers along with descriptions for the review and processing of each submittal. The Contractor is required to submit the Schedule of Submittals to the Engineer for approval prior to any review of individual submittals.

D. PERMITS

1. The Contractor shall secure all required permits for the project before starting any Work. Unless noted otherwise in the Bid Form, the expense for these permits will be considered part of the overall project costs. Projects for public entities shall still require a permit

from their building/planning department. Such permits may be at no cost to the Contractor (i.e. the City's Building Department may not require payment for their project permit within their jurisdiction). The Contractor is responsible for confirming all permit fees prior to submitting their Bid.

E. APPLICATIONS FOR PAYMENT

1. Application for Payments will be prepared and submitted on the electronic Pay Application form provided at the Pre-Construction Conference.
2. Use data from the approved Schedule of Values. Provide dollar value in each column for each line item for portion of Work performed and for stored products.
3. List each authorized Change Order as an extension at the bottom of the Schedule of Values, on the continuation sheet, and top of the application. Include Change Order number and dollar amount as for an original Item of Work. Ensure that the percentage of Project Completion reflects the current time and Contract value.
4. Certify by signature of authorized representative.
5. Submit two copies of each Application for Payment at monthly intervals. Include the following with the application:
 - a. Construction progress schedule, updated;
 - b. Project Narrative Report Outline;
 - c. Certificate of Insurance.
6. The request for Job Progress Drawings will be at the discretion of the Engineer. The inability of the Contractor to provide Job Progress Drawings in compliance with this Section will be justification to withhold payment.
7. When Engineer requires substantiating information, submit data justifying dollar amounts in question. Each submittal should have a cover letter and one copy of the data. Clearly indicate the application number and date, along with the line item by number and description.

F. PROJECT NARRATIVE REPORT

1. The monthly submittal to the Engineer shall be accompanied by a Narrative Report. The report shall be brief, and include the information described in Outline - Section 1.08.F.5 below.

2. If at any time during the project, the Contractor fails to complete any activity by its latest completion date, he will be required, within 7 days, to submit to the Engineer a written statement as to how and when he plans to reorganize his work force to return to the Overall Schedule.
3. Whenever it becomes apparent from the current monthly progress evaluation and updated schedule data that the Contract completion date will not be met, the Contractor shall take some of all of the following actions:
 - a. Increase construction manpower in such quantities and craft as shall substantially eliminate the backlog of work.
 - b. Increase the number of working hours per shift, shifts per work day, work days per week, or the amount of construction equipment or any combination of the foregoing sufficient to substantially eliminate the backlog of work.
 - c. Reschedule work items to achieve concurrency of accomplishment.
4. The addition of equipment or construction forces, increasing the working hours or any other method, manner or procedure to return to the current Overall Schedule shall not be considered justification for a Change Order or treated as an acceleration order.
5. Project Narrative Report Outline:
 - a. Contractor's transmittal letter;
 - b. Schedule narrative referring to each activity on the Overall Schedule including:
 - 1) Activities Completed this reporting period.
 - 2) Activities in Progress this reporting period.
 - 3) Activities Scheduled next reporting period.
 - c. Description of any problem areas.
 - d. Current and Anticipated Delays:
 - 1) Cause of Delay;
 - 2) Corrective Action and schedule Adjustments to correct the delay;
 - 3) Impact of delay on other activities and completion dates.
 - e. Change in construction sequence.
 - f. Pending items and status thereof:
 - 1) Permits;
 - 2) Change Orders;
 - 3) Time Extensions;
 - 4) Other.
 - g. Contract completion date status:
 - 1) Ahead of schedule and number of days;
 - 2) Behind schedule and number of days.

- h. Other project or scheduling concerns.
- i. Including reviewed and updated Overall Schedule.
- j. Progress Quality Chart (if required).
- k. Other.

G. PROJECT RECORD DOCUMENTS

1. The Contractor shall maintain at the site one record copy of all drawings, specifications, addenda, change orders, and other modifications, in good order and marked currently to record all changes made during construction; and shall maintain at the site reviewed shop drawings, product data, and samples. These shall be available to the Engineer, during construction, for their review, and may be submitted to the Owner during construction, at the request of the Engineer.
2. The Contractor shall maintain two sets of full size prints on the jobsite, one set designated "Job Progress Drawings" and the second set designated "Record Drawings." The Contractor shall maintain both sets in a condition that reflects the current status of the construction work. All markings should be neatly performed with a red pencil. Both sets shall be available to the Engineer for inspection and copying during the progress of the work.
3. The Record Drawings will be marked up as required to show all deviations from the original contract drawings including changes resulting from minor field adjustments, field orders, and Contract modifications. Changes should be drawn after the construction work is completed and all new locations, dimensions, and elevations shall be shown. Where larger scale presentation is required, the Contractor shall prepare additional drawings and attach them to the appropriate prints.
4. Each month, during the progress meeting, or as mutually agreed upon, the Contractor shall submit to the Engineer an updated listing and description of all deviations incorporated into the work since the previous submittal.
5. Failure to submit the record drawing information shall be cause for withholding any partial payment due to the Contractor.
6. At completion of the work but before Substantial Completion, both the Job Progress Drawings and Record Drawings sets of prints shall be submitted to the Engineer.
7. All Record Drawings, Documents, and Reviewed Submittals, shall be submitted as part of the Close-Out documents to the Engineer for review upon Substantial Completion, or as otherwise directed.

Failure to maintain and submit Record Documents, in a timely manner, may be subject to cause withholding payment and may result in a project delay due to the fault of the Contractor, until proper documents are submitted and current with the status of the project.

1.09 TECHNICAL SUBMITTALS

- A. Requirements in this section are in addition to any specific requirements for submittal specified in other divisions and sections of these Contract Documents.
- B. All Submittals shall be submitted by and received from the General Contractor, who shall indicate by a signed stamp on the shop drawings, or other acceptable means, that the Contractor has checked and approved the submittals, and that the work shown is in accordance with the Contract Documents and has been checked for relationship and coordinated with other work. The practice of submitting incomplete or unchecked submittals for the Engineer to correct or finish will not be acceptable. Any submittal which lacks a checked and signed submittal stamp indicating that they have not been checked or reviewed by the Contractor will be returned to the Contractor for resubmission in the proper form.
- C. Data submitted shall have sufficient detail for determination of compliance with the Contract Documents.
- D. No equipment or material for which listings, drawings, or descriptive material are required shall be fabricated, purchased, or installed until the Engineer has on hand copies of such approved lists and the appropriately stamped final shop drawings.
- E. Review of substitutions, schedules and lists of materials submitted, or requested by the Contractor, shall not add to the Contract amount. Any additional costs that may result thereof shall solely be the obligation of the Contractor.
- F. The Owner shall not be responsible for providing engineering or other services to protect the Contractor from additional costs from such approvals.
- G. The Owner is not precluded, by virtue of review, acceptance, or approval, from obtaining a credit for construction savings resulting from allowed concessions in the work or materials therefor.
- H. Material and equipment installed, purchased, furnished, or provided for the Project which has not been submitted and reviewed by the Engineer may be ordered removed and acceptable material and equipment installed in its place at no additional cost to the Owner.

- I. Submittals will be acted upon by the Engineer as promptly as possible, and in all cases within 20 days of receipt and returned to the Contractor. Delays caused by the need for resubmittals shall not constitute reason for an extension of Contract time.
- J. When submittals have been reviewed electronically, a pdf copy will be returned to the Contractor appropriately stamped. If major changes or corrections are necessary, the submittal may be rejected and will be returned to the Contractor with such changes or corrections indicated, and the Contractor shall correct and resubmit in the same manner and quantity as specified for the original submittal. If changes are made by the Contractor (in addition to those requested by the Engineer) on the resubmitted submittal, such changes shall be clearly explained by the Contractor in a transmittal letter accompanying the re-submittal.

K. SHOP DRAWINGS

- 1. Contractor shall submit for approval a shop drawing submittal log listing all items to be submitted including Section No. and Item No. This must be provided prior to the review of any shop drawing.
- 2. The Contractor shall submit to the Engineer for his review, one (1) pdf copy of Shop Drawings 11"x17" or larger including catalog cuts for fabricated items. These shop drawings shall be accurate, distinct, and complete, and shall contain all required information, including satisfactory identification of items, units, and assemblies in relation to the applicable parts of these Contract Documents.
- 3. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do no reproduce Contract Documents in whole or in part or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project will not be accepted as a Shop Drawing.
- 4. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
 - a. Identification of products and materials included by sheet and detail number.
 - b. Dimensions.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurements.
 - f. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 11

by 17 inches, but no larger than 24 x 36 inches unless otherwise required to comply with this Section.

g. Do not use Shop Drawings without appropriate final stamp indicating action taken.

5. The review of Shop Drawings and catalog cuts by the Engineer will not relieve the Contractor from responsibility for correctness of dimensions, fabrication details, and space requirements, or for deviations from the drawings or specifications, unless the Contractor has called attention to such deviations in writing by a letter accompanying the Shop Drawings and the Engineer approves the change or deviation in writing at the time of submission; nor shall review by the Engineer relieve the Contractor from the responsibility for errors in the Shop Drawing. When the Contractor does call such deviations to the attention of the Engineer, the Contractor shall state in his letter whether or not such deviations cause any deduction or extra cost adjustment.

6. When shop drawings have been reviewed, two sets of submittals will be returned to the Contractor appropriately stamped. If major changes or corrections are necessary, the shop drawings may be rejected and one set will be returned to the Contractor with such changes or corrections indicated. The Contractor shall correct and resubmit the shop drawings in the same manner and quantity as specified for the original submittal, unless otherwise directed by the Engineer. If changes are made by the Contractor, in addition to those requested by the Engineer, on the resubmitted shop drawings, such changes shall be clearly noted on the shop drawings and explained by the Contractor in a transmittal letter accompanying the resubmitted shop drawings.

7. The Contractor agrees that shop drawing submittals processed by the Engineer do not become Contract Documents and are not Change Orders and that the purpose of the shop drawing review is to establish a reporting procedure and is intended for the Contractor's convenience in organizing his work and to permit Engineer to monitor the Contractor's progress.

L. SUBSTITUTIONS AND PRODUCT OPTIONS

1. Refer to Section 01632 – Substitutions and Product Options for procedures and requirements.

M. SAMPLES

1. Where required in the specifications, and as determined necessary by the Engineer, test specimens or samples of materials, colors

and/or finishes, appliances, and fittings to be used or offered for use in connection with the work shall be submitted to the Engineer, at the Contractor's expense, with information as to their sources, with all cartage charges prepaid, and in such quantities and sizes as may be required for proper examination and tests to establish the quality or equality thereof, as applicable.

2. All samples and test specimens shall be submitted in ample time to enable the Engineer to make any tests or examinations necessary without delay to the work. The Contractor will be held responsible for any loss of time due to his neglect or failure to deliver the required samples and test specimens to the Engineer, as specified.
3. The Contractor shall submit additional samples and test specimens as required by the Engineer to assure quality with the original approved sample and/or determination of specification compliance.
4. The Contractor shall cooperate with the laboratory personnel and provide access to the work to be tested. The Contractor shall notify the laboratory sufficiently in advance of operations to allow schedule of tests. The Contractor shall furnish labor and facilities to obtain and handle samples at the site and to store and cure test samples as required.
5. Any testing laboratory utilized by the Contractor shall be an independent laboratory acceptable to the Owner and the Engineer and complying with the latest edition of the "Recommended Requirements for Independent Laboratory Qualification" published by the American Council of Independent Laboratories. The samples furnished and the cost of the laboratory services shall be at the expense of the Contractor.
6. Testing laboratories, whether provided by the Owner or the Contractor, shall promptly notify the Engineer and the Contractor of irregularities or deficiencies of work which are observed during performance of services. Laboratories shall submit two copies of all reports directly to the Engineer and two copies to the Contractor. The samples furnished and the cost for the laboratory services shall be at the expense of the Contractor.
7. Laboratory tests and examinations not required by the Contract Documents will be made at no cost to the Contractor, except that, if a sample of any material or equipment proposed for use by the Contractor fails to meet the specifications, the cost of testing subsequent samples shall be borne by the Contractor.

8. Sample items (fixtures, hardware, etc.) may be incorporated into the work upon acceptance of the items and when no longer needed by the Engineer for reference.

N. OPERATION AND MAINTENANCE DATA

1. Source Data: For each product of system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local sources of supplies and replacement parts.
2. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
3. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
4. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
5. Binders: All Record Documents shall be assembled in accordance with Section 01700 - Contract Closeout, Section 3.07-B.
 - a. Any Record Documents larger than 11 inches by 7 inches and items that cannot be folded and included in the 3-ring binders shall be folded or rolled in a fashion to allow storage.

O. OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

1. For each Product, Applied Material and Finish:
 - a. Submit product data, with catalog number, size, composition, and color and texture designations.
 - b. Include information for re-ordering custom manufactured products.
2. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
3. Moisture protection and weather-exposed products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.

4. Additional information as specified in individual product specification sections.
5. Where additional instructions are required, beyond the Manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
6. Provide a listing in Table of Contents for design data, with a tabbed fly sheet and space for insertion of data.
7. Binders: All Operation and Maintenance Data for Materials and Finishes shall be assembled in accordance with Section 01700 - Contract Closeout, Section 3.07-B.
 - a. Any Operations and Maintenance Data for Materials and Finishes larger than 11 inches by 7 inches and items that cannot be folded and included in the 3-ring binders shall be folded or rolled in a fashion to allow storage.

P. OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

1. See sections related to Plumbing, Mechanical and Electrical work for individual requirements.
2. Binders: All Operation and Maintenance Data for Equipment and Systems shall be assembled in accordance with Section 01700 - Contract Closeout, Section 3.07-B.
 - a. Any Record Documents larger than 11 inches by 7 inches and items that cannot be folded and included in the 3-ring binders shall be folded or rolled in a fashion to allow storage.

Q. QUALITY ASSURANCE SUBMITTALS

1. Submit quality control submittals, including design date, certifications, manufacturer's instructions, manufacturer's field reports, and other quality control submittals as required under other Sections of the Specifications.
2. Certifications: Where other Sections of the Specifications require certification that a product, material or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.
3. Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.

4. Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified above in Section 1.09 M - Samples and Section 01402 – Special Inspections and Testing, and as required under other Sections of the Specifications.

R. CERTIFICATE OF COMPLIANCE

1. A Certificate of Compliance shall be provided for materials that meet a recognized standard or code before those materials are used in the project. The Engineer may allow the use of specific materials or assemblies prior to sampling and testing if they are accompanied by a Certificate of Compliance. This certificate must be signed by the manufacturer of the material or the manufacturer of the assembled materials and must confirm that the materials fully comply with the specifications. Each shipment of material delivered to the project must come with a Certificate of Compliance, and the certified lot should be clearly identified in that certificate.
2. All materials utilized under a Certificate of Compliance may be subject to sampling and testing at any time. The use of materials based on this Certificate does not exempt the Contractor from ensuring that all materials incorporated into the project meet the specifications outlined in the Contract Documents. Any materials that do not meet these requirements may be rejected, regardless of whether they are currently in place.
3. The Engineer retains the authority to refuse permission for material usage based on the Certificate of Compliance.

S. CONTRACT CLOSEOUT DOCUMENTS

1. Refer to Section 01700 – Contract Closeout for procedures and requirements.

T. WARRANTIES

1. Contractor shall provide standard one-year warranty from the date of Substantial Completion for construction of the Project, or a longer period of time as Contract Documents warrant.
2. Specific product warranties may extend beyond the one-year construction warranty. Additional warranty requirements are outlined in the specific Technical Specifications. Submit warranty certification meeting requirements upon Project Completion.
3. The date on which all Warranties commence shall be the date of Substantial Completion for the applicable Work/Product.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 The Contractor shall provide all of the submittals required by the Bidding Requirements, the General Conditions, the Supplemental Conditions, Division 1 Sections, Technical Specifications, and as are specifically require elsewhere in these Contract Documents.

3.02 The Contractor shall submit to the Engineer a copy of all correspondence relative to the Contract, transmitting notification, reports and certifications. Costs for reproductions shall be considered incidental and included in the Contractors' Bid.

3.03 SUBMITTAL PROCEDURES

- A. Each submittal will be accompanied by the Transmittal of Construction Submittals form provided during the Pre-Construction Conference.
- B. For easy tracking, the first submittal will be numerical (such as No. 1) and any re-submittal will be followed by a letter. For example, the second submittal of Submittal No. 2 would be No. 2A. If there is a possibility of a third submittal, it would be numbered Submittal No. 2B and so on. All submittals must identify the applicable specification section and a description of the contents. Multiple submittals transmitted under the same cover shall identify each applicable specification section.
- C. Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related elements of the Work so that processing will not be delayed by the need to review submittals concurrently for coordination. The Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
- D. To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.
 1. Review time for submittals/resubmittals shall be as per Section 1.09.I above.

2. Allow additional time if the Engineer must delay processing to permit coordination with subsequent submittals.
3. If an intermediate submittal is necessary, process the same as the initial submittal.
4. No extension of Contract Time will be authorized because of failure to transmit submittal to the Engineer sufficiently in advance of the Work to permit processing.

E. When submitting, place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

1. Provide a space 4 inches by 5 inches on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the actions taken.
2. Include the following information on the label for processing and recording action taken:
 - a. Project Name;
 - b. Date;
 - c. Name and address of the Contractor;
 - d. Name and address of the Engineer;
 - e. Name and address of the Subcontractor and/or Supplier;
 - f. Name of the Manufacturer;
 - g. Title and number of the Specification Section;
 - h. Appropriate drawing number and detail references.

F. Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Engineer using the Submittal Transmittal form provided to the Contractor at the Pre-Construction Conference.

3.04 ENGINEER DUTIES

A. Review submittals with reasonable promptness and in accord with schedule. The Engineer will review shop drawings for conformance with the information given and the design concept expressed in the Contract Drawings only and will not bear the responsibility of any phase of the Contractor's liability in relation to shop drawings and their approval and/or corrections. The Engineer's review of the Contractor's submittals/shop drawings shall not relieve the Contractor of his obligations and entire responsibility for the performance of the work in full accordance with the requirements of the Contract.

B. The Engineer will not accept submittals that have not been reviewed first by the Contractor and marked as reviewed.

- C. Affix stamp and initials or signature, and indicate requirements for review or resubmittal of the submittal.
- D. Return submittals to Contractor for distribution or for re-submission.

END OF SECTION

SECTION 01402 – SPECIAL INSPECTIONS AND TESTING

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS

- A. Division 1 Sections.
- B. Division 3 Sections.
- C. Division 5 Sections.

1.02 REFERENCES

- A. ASTM D3740 – Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- B. ASTM E329 – Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.
- C. American Council of Independent Laboratories – Recommended Requirements for Independent Laboratories Qualifications.

1.03 DESCRIPTION

- A. The Contractor shall employ one or more special inspectors to provide inspections during construction and shall employ testing laboratories to perform all tests as indicated by the Construction Documents. All payments to special inspectors and testing labs shall be made by the Contractor.
- B. Contractor shall pay for any additional structural testing and inspection required for Work or materials not complying with Construction Documents due to negligence or nonconformance.
- C. It is the Contractor's responsibility to have the Special Inspector on-site during Construction, to have the Special Inspections performed at the frequency indicated (Continuous, Periodic, Observed, Performed, etc.), and for the task required as indicated in the Schedule of Special Inspection Services on the Plans and as directed in the Project Manual. Should the Special Inspector not be present during Continuous Inspections or tasks not be performed in accordance with the Schedule and/or Project Manual, the Work shall be considered Non-Conforming and will be required to be modified and/or replaced at the discretion of the Structural Engineer of Record. All costs for Non-Conforming items requiring modifications and/or replacement shall be paid for by the Contractor.
- D. Contractor shall pay for any additional structural testing and inspection required for his convenience.

- E. Neither the observation of the Architect/Structural Engineer in the administration of the contract, nor test/inspections by the Special Inspector, nor approvals by persons other than the Architect/ Structural Engineer shall relieve the Contractor from his obligation to perform the Work in accordance with the Construction Documents.
- F. Special Inspection and testing shall meet the requirements of the *International Building Code* Section 1704. Requirements and forms for structural special inspections and testing include the following:
 - 1. Statement of Structural Special Inspections.
 - 2. Final Report of Special Inspections.
 - 3. Special Inspection Daily Report.
 - 4. Special Inspection Weekly Report.
 - 5. Special Inspection Discrepancy Notice.
 - 6. Contractor's Statement of Responsibility
 - 7. Fabricator's Certificate of Compliance.
 - 8. Schedule of Special Inspection Services (See Structural Plans).
 - 9. Minimum Special Inspector Qualifications.
- G. Special Inspections shall be approved by the Building Official.

1.04 DUTIES AND RESPONSIBILITES

- A. Special Inspector's Responsibilities:
 - 1. Special Inspectors should notify the Contractor of their presence and responsibilities at the jobsite. If required by the building official, they shall sign in on the appropriate form posted with the building permit.
 - 2. The special inspector shall observe assigned work for conformance with the building department approved (stamped) design drawings and specifications and applicable workmanship provisions of the *International Building Code*. Architect/Structural Engineer reviewed shop drawings may be used only as an aid to inspection.

For *continuous special inspection*, the special inspector shall be on site when and where the work to be inspected is being performed. *Periodic inspections* refer to special inspections by the special inspector who is intermittently present where the work to be inspected has been or is being performed.

3. The special inspector shall bring nonconforming items to the immediate attention of the Contractor for correction.
4. The special inspector shall write a *Special Inspection Discrepancy Notice* about each nonconforming item containing:
 - a. Description and exact location;
 - b. Reference to applicable drawings and specifications; and
 - c. Resolution or corrective action taken and the date.
5. The special inspector should complete written inspection reports and furnish these reports to the Architect/Structural Engineer and the Contractor. The reports should:
 - a. Describe the special inspection and tests made, with locations;
 - b. Indicate nonconforming items and their resolution;
 - c. List unresolved items and parties notified;
 - d. Itemize any changes authorized by the Architect/Structural Engineer.
6. Submit *Special Inspection Weekly Reports* on a weekly basis to the Building Official, Structural Engineer of Record and Architect of Record. Weekly reports shall be submitted once construction commences and shall be submitted weekly whether work has been performed by the Contractor or not.
7. Submit a signed *Final Report of Special Inspections* stating that all required special inspections and testing were fulfilled and reported and that any outstanding discrepancies have been corrected.

B. Contractor Responsibilities:

1. Submit all *Statement(s) of Responsibility* where required by the *Statement of Special Inspections*.
2. Maintain the *Schedule of Special Inspection Services* at the project site and submit a copy to the Architect/Structural Engineer and the Building Official when all services are complete.
3. The Contractor is responsible for notifying the special inspector or agency regarding individual inspections for items listed on the schedule and as noted on the building department approved plans. Adequate notice shall be provided so the special inspector has time to become familiar with the project.

4. Coordinate the scheduling and timely notification of the specific individuals needed for special inspection.
5. Provide direct access to the approved design drawings and specifications for the project, as well as any revisions.
6. Submit *Fabricator's Certificates of Compliance* for approved fabricators.
7. Provide safe access to the work to be inspected.
8. Maintain at the project site for use by the Special Inspectors at least one copy of:
 - a. all required manufacturer's equipment Certificates of Compliance; and
 - b. all shop drawings/submittals indicating seismic restraint design for all designated seismic systems.

1.05 SUBMITTALS

- A. Special Inspector Qualifications: Prior to the commencement of construction, the Contractor shall submit the certifications of each Special Inspector providing service on this Project. Special Inspectors shall meet the minimum qualifications as outlined in the Minimum Special Inspector Qualifications Tables 1 & 2 for each *Category of Testing and Inspection* as indicated.

STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS

PROJECT: Jackson County Fairgrounds – New Equipment Storage Bldg.

LOCATION: Pascagoula, Mississippi

PERMIT APPLICANT: _____

APPLICANT'S ADDRESS: _____

STRUCTURAL ENGINEER OF RECORD: DEAN STRUCTURAL ENGINEERS, INC.

This Statement of Special Inspections is submitted in accordance with Section 1704 of the *2018 International Building Code*. It includes a *Schedule of Special Inspection Services* applicable to the above-referenced Project as well as the identity of the individuals, agencies, or firms intended to be retained for conducting these inspections. If applicable, it includes *Requirements for Seismic Resistance* and/or *Requirements for Wind Resistance*.

Are *Requirements for Seismic Resistance* included in the *Statement of Special Inspections*? Yes No

Are *Requirements for Wind Resistance* included in the *Statement of Special Inspections*? Yes No

The Special Inspector(s) shall keep records of all inspections and shall furnish interim inspection reports to the Building Official, Structural Engineer of Record and Architect of Record. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official, Structural Engineer of Record and Architect of Record prior to completion of that phase of work. A *Final Report of Special Inspections* documenting required special inspections and corrections of any discrepancies noted in the inspections shall be submitted to the Building Official, Structural Engineer of Record and Architect of Record at the conclusion of the project.

Interim reports shall be submitted on the following basis to the Building Official, Owner, Structural Engineer of Record and Architect of Record:

X Weekly Bi-Weekly Monthly Other; specify: _____

The Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract Documents. Jobsite safety and means and methods of construction are solely the responsibility of the Contractor.

Statement of Special Inspections Prepared by:

Harlan G. Dean, III, PE, SE

Type or print name

Signature

Date

Preparer's Seal

Building Official's Acceptance:

Signature

Date

Permit Number:

FINAL REPORT OF SPECIAL INSPECTIONS

PROJECT: Jackson County Fairgrounds – New Equipment Storage Bldg.

LOCATION: Pascagoula, Mississippi

PERMIT APPLICANT: _____

APPLICANT'S ADDRESS: _____

STRUCTURAL ENGINEER OF RECORD: DEAN STRUCTURAL ENGINEERS, INC.

Based upon inspections performed and our (my) substantiating reports, it is our (my) professional judgment that, to the best of our (my) knowledge, the special inspections and testing required for this project and requirements listed in the *Schedule of Special Inspection Services* submitted for permit have been completed in accordance with the approved plans, specifications and applicable workmanship provisions of the *2018 International Building Code*.

The Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract Documents. Jobsite safety and means and methods of construction are solely the responsibility of the Contractor.

Interim reports submitted prior to this final report and numbered _____ to _____ form a basis for, and are to be considered an integral part of this final report. The following discrepancies that were outstanding since the last interim report dated _____ have been corrected:

(Attach 8 1/2" x 11" continuation sheet(s) if required to complete the description of corrections)

Prepared By:

Special Inspection Agent/Firm

Type or print name of Special Inspector

Signature

Date

SPECIAL INSPECTION DAILY REPORT

(Completed by Special Inspector)

Project:

Project Location:

Permit #

Date:

Inspection Type(s) Coverage:

Continuous

Periodic

Other Frequency

Describe inspections made, including locations:

List tests performed:

List items requiring correction and items that were previously listed as deficient and still require correction:

To the best of my knowledge, work inspected was in accordance with the building department approved plans, specifications and applicable workmanship provisions of the 2018 International Building Code.

Signature

Inspection Agency

Type or Print Name

ID/Certificate Number

SPECIAL INSPECTION WEEKLY REPORT

(Completed by Special Inspector)

Project:

Project Location:

Permit #

Date:

Inspection Type(s) :

Total Inspection Time Each Day:

Date							
Hours							
Inspector							

Describe inspections made, including locations:

List tests performed:

List items requiring correction and items that were previously listed as deficient and still require correction:

To the best of my knowledge, work inspected was in accordance with the building department approved plans, specifications and applicable workmanship provisions of the 2018 International Building Code.

Signature

Inspection Agency

Type or Print Name

ID/Certificate Number

SPECIAL INSPECTION DISCREPANCY NOTICE

(Completed by Special Inspector)

Project:

Project Location:

Permit #

Date & Discrepancy #

Inspection Type(s) Coverage:

Continuous

Periodic

Other Frequency

Notice Delivered To:

Contractor

Date: _____ Time: _____

Engineer/Architect

Date: _____ Time: _____

Owner

Date: _____ Time: _____

The following discrepancies require correction and inspection approval prior to proceeding with the next phase of work:

To the best of my knowledge, work inspected was in accordance with the building department approved plans, specifications and applicable workmanship provisions of the 2018 International Building Code.

Signature

Inspection Agency

Type or Print Name

ID/Certificate Number

CONTRACTOR'S STATEMENT OF RESPONSIBILITY

Each contractor responsible for the construction or fabrication of a main wind or seismic force resisting system, designated wind or seismic resisting component listed in the Statement of Special Inspection (Requirements for Wind or Seismic Resistance) must submit a Statement of Responsibility, in accordance with the International Building Code, Section 1704.4

Project: _____

Contractor's Name: _____

Address: _____

License No. _____

Description of building systems and components included in Statement of Responsibility:

Contractor's Acknowledgement of Special Requirements

I hereby acknowledge that I have received, read, and understand the Statement of Special Inspections and the Special Inspection program:

I hereby acknowledge that control will be exercised to achieve conformance with the approved construction documents.

Signature

Date

Name and Title (type or print)

Contractor's Provisions for Quality Control

Provisions for exercising control within the contractor's organization, the method and frequency of reporting and distribution or reports is attached to this Statement. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization are attached in this Statement.

FABRICATOR'S CERTIFICATE OF COMPLIANCE

(Completed by Fabricator)

Each approved fabricator that is exempt from Special Inspection of shop fabrication and implementation procedures per section 1704.2 of the *International Building Code* must submit *Fabricator's Certificate of Compliance* at the completion of fabrication.

Project: _____

Fabricator's Name: _____

Address: _____

Certification/Approval Agency: _____

Certification Number: _____

Date of Last Audit or Approval: _____

Description of structural members and assemblies that have been fabricated:

I hereby certify that items described above were fabricated in strict accordance with the approved construction documents.

Signature

Date

Type or Print Name

MINIMUM SPECIAL INSPECTOR QUALIFICATIONS

TABLE 1

Category of Testing and Inspection	Shop Inspection	Field Testing/ Inspection	Review Submittals	Review Testing, Certification, & Lab Reports
1704.2.5 Inspection of Fabricators				
Pre-cast concrete	A, C, E			
Structural steel construction	C, F, G			
Wood construction	A, N			
Cold formed metal construction	A, N			
1705.2 & 1705.11.1 Steel Construction				
Welding	C, F, G	C, F, G	A	A
High strength bolting, inspection of steel frame joint details		A, C	A	A
1705.2.2, 1705.10.2 & 1705.11.3 Steel Construction other than Structural Steel				
Welding	C, F, G	C, F, G	A	A
Screw attachment, bolting, anchoring and other fastening		A, C	A	A
1705.3 & 1705.12.1 Concrete Construction				
Reinforcing placement, cast-in-place bolts, post installed anchors, concrete and curing operations		A, C, H		
Pre-stressing steel installation		A, C, D, E		
Erection of pre-cast concrete members		A, C, H		
Concrete field testing		A, C, H, I, J		
Review certified mill reports and design mixes			A	
Verify use of required design mix		A, C, H, I, J		
Pre-stressed (pre-tensioned) concrete force application	A, C, E			
Post-tensioned concrete force application		A, C, D, H		
Review of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs		A, C, D		
Reinforcing steel weldability and weld filler material		C, F, G		
1705.4 Masonry				
Review f'm prior to construction			A	
Mortar joint construction, grout protection and placement, materials proportion, type/size/location of reinforcement, structural elements, anchorage, and connectors		A, C, K		
Sampling/testing of grout/mortar specimens		A, C, K		
Observe preparation of masonry prisms for testing of compressive strength of masonry, f'm		A, C, K		
Inspection of welding of reinforcing steel		C, F, G		

MINIMUM SPECIAL INSPECTOR QUALIFICATIONS

TABLE 2

Category of Testing and Inspection	Shop Inspection	Field Testing/ Inspection	Review Submittals	Review Testing, Certification, & Lab Reports
1705.6 Soils				
Observe site preparation, fill placement and testing of compaction for compliance with the construction documents for the project		A, C, I		
Observe and test bearing materials below shallow foundations for ability to achieve design bearing capacity		A, L		
Review compaction testing for compliance with the construction documents for the project				A
1704.5 Wood Construction				
Observe structural panel sheathing, size of framing members, nail or staple diameter and length, number of fastener lines, and spacing of fastener lines and fasteners for compliance with construction documents for the project		A, N		
1705.7, 1705.8 & 1705.9 Pile and Pier Foundations				
Observe installation		A, L, I		
Observe load tests		A		
1705.10.3 & 1705.11.4 Seismic and Wind Resistance				
Periodic inspection of fabrication, installation and/or anchorage of building systems and components		A, B, C		

KEY:

- A. Mississippi Professional Engineer (MS PE) a licensed Mississippi PE specializing in the design of building structures.
- B. Mississippi Registered Architect (MS RA) or graduate of accredited architecture/architecture technology program under the direction of a MS RA.
- C. International Code Council (ICC) Special Inspector Certification specific to the particular material and testing methodology applicable to each Category of Testing and Inspection listed in the table.
- D. Post-tensioning Institute (PTI) Certification, Level 2.
- E. Pre-stressed Concrete Institute (PCI) Plant Quality Personnel Certification – Level III.
- F. American Welding Society (AWS) Certified Welding Inspector (CWI) or AWS Certified Associate Welding Inspector working under the direct on-site supervision of a CWI.
- G. American Society for Nondestructive Testing (ASNT) Level II certification, or a Level III certification if previously certified as a Level II in the particular material and testing methodology applicable to each Category of Testing and Inspection listed in the table.
- H. American Concrete Institute (ACI) Concrete Construction Special Inspector.
- I. National Institute for Certification in Engineering Technologies (NICET) Level II or higher certification specific to the particular material and testing methodology applicable to each Category of Testing and Inspection listed in the table.
- J. ACI Concrete Field Testing Technician with Grade 1 certification.
- K. National Concrete Masonry Association (NCMA) Certified Concrete Masonry Testing Technician.
- L. NICET Certified Engineering Technologist (CT).
- N. International Code Council (ICC) Commercial Building Inspector Certification.
- O. International Code Council (ICC) Mechanical Inspector Certification.

Notes:

1. *The Special Inspector shall meet one of the minimum qualifications listed for the applicable Category of Testing and Inspection.*

SECTION 01500 – TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Temporary utilities.
- B. Temporary sanitary facilities
- C. Temporary Controls: Barriers and fencing.
- D. Security Requirements.
- E. Vehicular access and parking.
- F. Waste removal facilities and services.
- G. Field offices.

1.02 TEMPORARY UTILITIES

- A. Owner will provide the following:
 - 1. Electrical power and metering, consisting of connection to existing facilities.
 - 2. Water supply, consisting of allowing the Contractor to connect to the Owner's existing water system where available.
 - 3. In the event that the required water supply is not adequate or accessible for the Contractor's use, the Contractor shall be responsible for all temporary water.
- B. Contractor shall coordinate with Owner connections of temporary utilities. Temporary utility connections shall not interfere with Owner's operations.
- C. Use trigger-operated nozzles for water hoses to avoid waste of water.

1.03 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Use of existing facilities is not permitted.
- C. New permanent facilities may not be used during construction operations.
- D. Maintain daily in a clean and sanitary condition.
- E. At the end of Construction, return facilities to same or better condition as originally found.

1.04 TEMPORARY CONTROLS

A. BARRIERS

1. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
2. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.05 SECURITY

- A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.
- B. Coordinate with Owner's security program.

1.06 VEHICULAR ACCESS AND PARKING

- A. Coordinate access and haul routes with governing authorities and Owner.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

1.07 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.

1.08 FIELD OFFICES

- A. Field Office for use of Contractor, Subcontractor, Engineer and Owner shall be provided by the Contractor. Office shall be weather-tight, with adequate ventilation, heating and cooling equipment, telephone, drawing rack, and drawing display table.
- B. Locate offices a minimum distance of 30 feet from existing and new structures.

1.09 REMOVAL OF UTILITIES, FACILITIES AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to the date of Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet. Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to condition prior to construction start.
- E. Restore new permanent facilities used during construction to specified condition.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01571 – TEMPORARY SILT FENCE

PART 1 – GENERAL

1.01 SUMMARY

A. Section Includes:

1. Temporary Silt Fence

1.02 REFERENCES

A. *Mississippi Standard Specifications for State Aid Road and Bridge Construction, 2004 Edition.*

1.03 SUBMITTALS

A. See the *Mississippi Standard Specifications for State Aid Road and Bridge Construction, 2004 Edition* for submittal requirements.

PART 2 – PRODUCTS

2.01 MATERIAL

A. Temporary silt fence shall be (Type I or II)(AOS 20-100), when required, shall meet the requirements of 714.13 of the *Mississippi Standard Specifications for State Aid Road and Bridge Construction, 2004 Edition.*

PART 3 – EXECUTION

3.01 CONSTRUCTION REQUIREMENTS

- A. Contractor's operations and activities associated with temporary silt fence shall meet the applicable construction requirements of the construction drawings and Section 234 of the *Mississippi Standard Specifications for State Aid Road and Bridge Construction, 2004 Edition.*
- B. Silt Fence shall be inspected weekly; maintenance to be performed as needed; failing controls will be repaired or replaced.
- C. Silt fence shall be removed once the site is satisfactorily stabilized.

END OF SECTION

SECTION 01600 – MATERIAL & EQUIPMENT SHIPMENT, HANDLING, PROTECTION & STORGE

PART 1 – GENERAL

1.01 This section describes the Contractor's responsibilities as it relates to material and equipment transportation, handling, storage and protection to the Project Site.

1.02 RELATED SECTIONS

A. Division 1 Sections.

1.03 MEASUREMENT AND PAYMENT

A. Payment for work in this section shall be included in the lump sum and/or unit price item(s) in the Bid. Unless a specific line item has been provided in the Bid Form, any Work associated with this Section shall be considered incidental.

1.04 QUALITY ASSURANCE

A. Do not use materials and equipment removed from the existing premises, except as specifically permitted by the Contract Documents.

1.05 DELIVERY, STORAGE & HANDLING

A. Package and Shipping: Transport and handle Products in accordance with Manufacturer's instructions.

B. Acceptance at Site:

1. Promptly inspect shipments to ensure that Products comply with requirements, quantities are correct, and Products are undamaged. Provide Bill of Laden upon Engineer's request.
2. Provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement, or damage.

C. Storage and Protection:

1. Store and protect Products in accordance with manufacturer's instructions. Store with seals and labels intact and legible.
2. Store sensitive Products in weather tight, climate controlled enclosures, in an environment favorable to the Product.
3. For exterior storage of fabricated Products, place on sloped supports above ground.
4. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation, degradation, or oxidation of Products.

5. Arrange storage of Products to permit access for inspection.
Periodically inspect to verify Products are undamaged and are maintained in acceptable condition.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01632 – SUBSTITUTIONS AND PRODUCT OPTIONS

PART 1 – GENERAL

1.01 This section sets forth the procedure and conditions for substitutions and to give the product options available to the Contractor.

1.02 PRODUCT LIST

- A. Within thirty (30) days after the Contract has been signed, the Contractor will submit to the Engineer two (2) copies of a complete list of all products proposed for installation.
- B. Tabulate the list by Specification section.
- C. For products specified under reference standards, include with listing of each Product:
 1. Name and address of Manufacturer;
 2. Trade Name;
 3. Model, or catalog designation;
 4. Manufacturer's data;
 5. Performance and test data;
 6. Reference standards.

1.03 CONTRACTOR'S OPTIONS

- A. For Products specified only by reference standards, select any product meeting product standards by any Manufacturer.
- B. For Products specified by naming a minimum of three (3) products or Manufacturers, select any Product or Manufacturer named.
- C. For Products specified by naming one (1) or more products, but indicating the option of selecting equivalent Products by stating "or equal" after specified Product, Contractor must submit a request, as required for substitution, for any product not specifically named.
- D. For Products specified by naming only one (1) Product and Manufacturer and stating no substitutions will be accepted, there is no option and no substitutions will be allowed.

1.04 SUBSTITUTIONS

- A. The Engineer will not consider requests for substitutions during bidding.

B. Within thirty (30) days after the Contract has been signed, the Engineer will consider formal requests from the Contractor for substitution of Products in place of those specified. Contractor shall provide documentation to the Engineer that the substitution meets/exceeds specified. Submit two (2) copies of the request for substitutions. Include in the request:

1. Itemized comparison of proposed substitutions with product or method specified. Provide side-by-side analysis of proposed and specified, indicating if it meets or exceeds.
2. Complete data substantiating compliance of proposed substitutions with Contract Documents.
3. For Products:
 - a. Product identification number including Manufacturer's name and address.
 - b. Manufacturer's literature: Product description, performance and test data and reference standards.
 - c. Samples.
 - d. Name and address of similar projects on which product was used and date of installation.
4. For construction methods:
 - a. Detailed description of proposed method.
 - b. Drawings illustrating method.
5. Data relating to changes in construction schedule.
6. Accurate cost data on proposed substitution in comparison with product or method specified.

C. In making a request for substitution, Contractor represents:

1. Proposed product or method has been investigated and determined that it is equal or superior in all respects to that specified.
2. The same guarantee will be provided for substitutions as for product or work specified.
3. Installation of accepted substitutions will be coordinated into the Work, making such changes required of work to be complete in all respects.
4. Cost data is complete and includes all related costs under the Contract.

D. Substitutions will not be considered if:

1. An itemized comparison of proposed substitutions with product or method specified is not submitted.
2. Indicated, or implied, on shop drawings or Product data submittals without formal request submitted in accordance with this Section.
3. Acceptance will require substantial revisions of Contract Documents.
4. In the Engineer's judgment, the product, or material, is not equal.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01700 – CONTRACT CLOSEOUT

PART 1 – GENERAL

1.01 The Work in this Section includes administrative and procedural requirements for contract closeout including, but not limited to, Guarantees, Bonds and Affidavits, Release of Liens, Consent of Surety, Final Cleaning, Final Inspection, and Final Submittals.

1.02 RELATED REQUIREMENTS

- A. Division 1 Sections
- B. Conditions of the Construction Contract

1.03 PAYMENT

- A. Payment for work in this section shall be included in the lump sum and/or unit price item(s) in the Bid. Unless a specific line item has been provided in the Bid Form, any Work associated with this Section shall be considered incidental.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 GUARANTEES, BONDS and AFFIDAVITS

- A. No application for final payment will be accepted until all guarantees, bonds, certificates, licenses, and affidavits required for work or equipment as specified are satisfactorily filed with the Engineer for transmittal to the Owner.

3.02 RELEASE OF LIENS AND CONSENT OF SURETY

- A. No application for final payment will be accepted until satisfactory evidence of Release of Liens and Consent of Surety to Final Payment has been submitted to the Owner.

3.03 ASBESTOS FREE MATERIAL

- A. Contractor shall provide a written and notarized statement on company letterhead(s) to certify and warrant that ONLY ASBESTOS FREE MATERIALS AND PRODUCTS were provided as required in this Project. Such statement shall be submitted with the final payment request. Final payment shall not be made until such statement is submitted.
- B. Contractor agrees that if materials containing asbestos are subsequently discovered at any future time to have been included in the Project, the Contractor shall be liable for all costs related to the redesign or modification on the construction of the Project so that materials containing asbestos are removed from the facility. If construction has begun or has

been completed pursuant to a design that includes asbestos containing materials, the Contractor shall also be liable for all costs related to the abatement of such asbestos.

3.04 SUBSTANTIAL COMPLETION

- A. The substantial completion date for the Contract shall be established as stated in the Conditions of the Construction Contract.

3.05 FINAL CLEANING

- A. Complete the following cleaning operations at the completion of work before requesting inspection for Substantial Completion for entire Project or for a designated portion of the project.
 1. Remove all waste, rubbish and unused surplus materials from and about the building and site, as well as tools, construction equipment and leave building broom clean.
 2. Clean project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 3. Leave Project clean and ready for use.
- B. Conduct cleaning and waste-removal operations to comply with local law and ordinances and Federal and local environmental and antipollution regulations.
- C. Employ experienced works or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

3.06 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.

3.07 FINAL INSPECTION

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will make a preliminary inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective.
- B. Upon notice, in writing, from the engineer, Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.
- C. When all items have been completed or corrected as listed in the Engineer's written notice, the Contractor shall inform the Engineer, in writing, that all work is completed. Upon written notice, the Engineer, with the Owner and Contractor, will make his final inspection of the Project.
- D. Should the Engineer find all work satisfactory at the time of his inspection, the Contractor will be allowed to submit his application for final payment in accordance with the provisions in the General Conditions. Should the Engineer still find deficiencies in the work, the Engineer will inform the Contractor of the deficiencies and will deny the Contractor's request for final payment until such time as the Contractor has satisfactorily completed the required Work.

3.08 FINAL SUBMITTALS

- A. Application for final payment will not be accepted until all of the following have been submitted as required in Section 01330 – Submittals, including, but not limited to:
 1. Project Record Drawings/As-Built Drawings
 2. Final Shop Drawings
 3. Approved Submittals
 4. RFI's
 5. Change Orders, Field Directives, Etc.
 6. Warranties, Guarantees, Bonds, Release of Liens, etc.
 7. O&M Manuals
- B. Organize documents into an orderly sequence based on the Table of Contents of the Project Manual.
 1. Bind Submittals, O&M Manuals, record information, tests, data, submittals, etc. in heavy-duty, three-ring vinyl-covered, loose-leaf

binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2 inch by 11 inch paper.

2. Provide heavy paper dividers with plastic covered tables for each section and document. Mark tabs to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of the installer.
3. Identify each binder on the front and spine with the typed or printed Project name and name of Contractor.
4. For electronic files, scan documents and assemble a complete package into a single indexed electronic PDF file with links enabling navigation to each item. Provide a bookmarked table of contents at the beginning of the document.

3.09 FINAL PAYMENT

- A. Final Payment will be made to the Contractor in accordance with the General Conditions.

END OF SECTION

SECTION 02250 - TERMITICIDE CONTROL

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Chemical soil treatment.

1.02 RELATED REQUIREMENTS

- A. Section 03300 – Cast-in-Place Concrete: Field-applied termiticide for concrete slabs and foundations.

1.03 REFERENCE STANDARDS

- A. Title 7, United States Code, 136 thru 136y – Federal Insecticide, Fungicide and Rodenticide Act; 2006.

1.04 SUBMITTALS

- A. See Section 01330 – Submittals, for submittal procedures.
- B. Product Data: Indicate toxicants to be used, composition by percentage, dilution schedule, intended application rate.
- C. Test Reports: Indicate regulatory agency approval reports when required.
- D. Manufacturer's Certificate: Certify that toxicants meet or exceed specified requirements.
- E. Certificate of compliance from authority having jurisdiction indicating approval of toxicants.
- F. Record and document moisture content of soil before application.
- G. Maintenance Data: Indicate re-treatment schedule.
- H. Warranty: Submit warranty and ensure that forms have been completed in Owner's name.
- I. All items listed in Quality Assurance shall be provided in the submittals.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing this type of work and:
 - 1. Having a minimum of three (3) years documented experience.
 - 2. Approved by manufacturer of treatment materials.
 - 3. Licensed in Mississippi.

1.06 WARRANTY

- A. See Section 01330 - Submittals for additional warranty requirements.
- B. Provide five year installer's warranty against damage to building caused by termites.
 - 1. Include coverage for repairs to building and to contents damaged due to building damage. Repair damage and, if required, re-treat.
 - a. Damage to the building caused by termites shall be corrected without cost to the owner up to \$10,000.00 in value.
 - 2. Inspect annually and report in writing to the Owner. Provide inspection service for five years from Date of Substantial Completion.

PART 2 – PRODUCTS

2.01 CHEMICAL SOIL TREATMENT

- A. Toxicant Chemical: EPA (Title 7, United States Code, 136 through 136y) approved; synthetically colored dye to permit visual identification of treated soil.
- B. Mixes: Mix toxicant to manufacturer's instructions.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Verify soil surfaces are unfrozen, sufficiently dry to absorb toxicant, and ready to receive treatment.
- B. Verify final grading is complete.

3.02 APPLICATION

- A. Comply with requirements of the U.S. EPA and applicable state and local codes.
- B. Spray toxicant in accordance with manufacturer's instructions.
- C. Apply extra treatment to structure penetration surfaces such as pipes or ducts, and soil penetrations such as grounding rods or posts.
- D. All along expansion and/or construction joints.
- E. Soil under attached open slabs such as porches, walkways, etc., shall be treated. Treated area shall extend at least 3 feet out from the wall where the attached items occur.

- F. Re-treat disturbed soil with the same toxicant as original treatment.
- G. If inspection or testing identifies the presence of termites, re-treat soil and re-test.

END OF SECTION

SECTION 02320 – EARTHWORK FOR STRUCTURES

PART 1 – GENERAL

1.01 RELATED REQUIREMENTS

- A. Division 1 Sections.
- B. Division 2 Sections.

1.02 REFERENCES

- A. ASTM D422 – Standard Test Method for Particle-Size Analysis of Soils.
- B. ASTM D698 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³).
- C. ASTM D1556 – Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method.
- D. ASTM D4254 – Standard Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density.
- E. ASTM D4318 – Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
- F. ASTM D6938 – Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

1.03 PROJECT RECORDS DOCUMENTS

- A. Accurately record actual locations of utilities remaining, by horizontal dimensions, elevations or inverts, and slope gradients.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Structural Fill – Type S1

- 1. The Contractor shall furnish and place suitable material and shall fill/compact in accordance with this specification.
- 2. Structural Fill (Type S1) shall consist of approved sandy material with less than 25% passing a #200 sieve, less than 2 percent organic matter, free of debris, with rocks no greater than 6 inches, and a Liquid Limit less than 30 and a Plasticity Index less than 15. Unacceptable fill materials include topsoils, ash, low-density soils with a maximum unit weight less than 95 pcf, organic materials, and highly plastic silts and clays. Any unsuitable materials removed during grading operations should be either stockpiled for later use in landscaped areas or placed in approved disposal areas.

3. Structural fill materials shall be approved by the Testing Laboratory.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Verify site conditions.
- B. After stripping and/or excavation, proofrolling building sites with a loaded dumptruck. Excavate pumping or yielding areas and backfill with S1 material compacted to 95% maximum ASTM D698 density.
- C. Verify that survey bench mark and intended elevations for the Work are as indicated.

3.02 PREPARATION

- A. Identify required lines, levels, contours, and datum.
- B. Stake and flag locations of known utilities.
- C. Locate, identify, and protect utilities that remain, from damage.
- D. Notify utility company to remove and/or relocate utilities as necessary.
- E. Protect above and below grade utilities that remain.

3.03 SUBSOIL EXCAVATION

- A. Prior to excavating, strip a minimum of six inches of soil from the surface of the area to be filled and stockpile for use as topsoil.
- B. Excavate subsoil from areas required by the drawings and project manual.
- C. Excavated material may be reused or stockpiled provided the material meets the requirements of Soil Material Type S1. Submit test reports to verify soil properties.
- D. After excavation and prior to placing fill or pavements, scarify the top 6 inches of soil from ground surface and recompact to 95% ASTM D 698 density with stability. If soil is unstable, adjust moisture content as described in paragraph 3.04G of this Section.

3.04 FILLING

- A. Prior to placing fill, strip a minimum of six inches of soil from the surface of the area to be filled and stockpile for use as topsoil.
- B. After stripping and proofrolling, scarify the top 6 inches of the ground surface and recompact to 95% maximum ASTM D698 density with stability. If soil is unstable, adjust moisture content as described in paragraph 3.04G of the Section.

- C. Structural Fill placed within the upper 2 feet below the footing bearing depth or within 12 inches below a grade bearing floor slab should be placed in loose lifts of 8 to 10 inches and compacted to at least 98% of its maximum dry density near optimum moisture in accordance with ASTM D698 or 95% of its maximum dry density near optimum moisture in accordance with ASTM D1557.
- D. Fill areas to contours and elevations with type S1 material unless shown or specified otherwise.
- E. Employ a placement method that does not disturb or damage other work.
- F. Fill simultaneously on each side of unsupported foundation walls until supports are in place.
- G. Adjust moisture content of fill materials within 3 percentage points of the optimum water content. ***The natural soils at this site are susceptible to lack of stability (pumping) under wet conditions. The actual condition of these natural soils at the time of construction will be strongly influenced by the season of the year and the rainfall conditions preceding and during construction. If pumping is initiated, lime or cement treatment of the soils or other measures will be required to restore stability.***
- H. The surface of each lift shall be scarified prior to placement of subsequent lifts.
- I. Made grade changes gradual. Blend slope into level areas.
- J. All areas not meeting required density or stability shall be excavated, reworked and retested.
- K. Reshape and recompact fills subject to vehicular traffic.
- L. Slope grade away from building.

3.05 DRAINAGE AND DEWATERING

- A. The Contractor shall keep the area of work properly drained at all times during the time of the Contract. He shall construct and maintain, as required, any and all necessary ditches, flumes, and other temporary diversion and protective measures necessary. Any such protective measures other than channels or ditches called for on the plans or authorized by the Engineer shall be provided at the Contractor's expense. The Contractor shall furnish, install, maintain, and operate at his expense all necessary pumps, well points, deepwells, and/or other equipment required for dewatering the various parts of the Work, and for maintaining the foundations, embankments, and other parts of the Work, free from water as required for construction.

3.06 TOLERANCES

- A. Top surface under paved areas and building: plus or minus 0.04 feet from required elevations.
- B. Top Surface of Other Areas: Plus or minus 1/10 foot.

3.07 FIELD QUALITY CONTROL

- A. Laboratory classification tests including Atterberg limit determinations and grain size analysis shall be performed on the fill and backfill soils initially and routinely during earthwork operations to check for compliance with the requirements for S1 fill.
- B. Compaction testing will be performed in accordance with ANSI/ASTM D698 and/or ASTM D4254 and ASTM D2922.
- C. If tests indicate Work does not meet specified requirements, remove Work, replace and retest.
- D. Frequency of Tests: Compaction tests shall be taken at the rate of one per lift for every 2,500 sq.ft. of building surface area.

END OF SECTION

EARTHWORK FOR STRUCTURES
BID FORM UNIT PRICES

The following unit prices will apply to authorized changes in quantities of items added or deducted from the Work. These unit prices shall remain fixed throughout the length of the Contract from the date of the signatures of the contract between the Owner and the Contractor. During this period, the Owner shall have the option to execute change orders to the Contract for Construction for any or all of the items listed below in the quantities selected and at the unit prices so stated.

Unit Prices for Soils

1. Undercut

Add \$_____ per Compacted Yard Measured in Place.
Deduct \$_____ per Compacted Yard Measured in Place.

2. Haul Off

Add \$_____ per Compacted Yard Measured in Place.
Deduct \$_____ per Compacted Yard Measured in Place.

3. Haul In Structural Fill – Type S1

Add \$_____ per Compacted Yard Measured in Place.
Deduct \$_____ per Compacted Yard Measured in Place.

SECTION 02936 – SEEDING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Topsoil salvage and spreading.
- B. Preparation of seedbed.
- C. Lime and fertilizer application.
- D. Seeding and mulching.

1.02 RELATED SECTIONS

- A. Section 02320 – Earthwork for Structures.

1.03 QUALITY ASSURANCE

- A. Provide seed requirements in containers showing percent pure seed, percent germination, percent weed seed, date and location of packaging. Information on the bag tag shall be from a seed test made within six (6) months prior to date of planting.
- B. Provide fertilizer of good quality meeting the specified nutrient content specified for the site.
- C. Provide wheat or oats straw for mulching that is free from noxious weed seeds.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. The delivery of the grass seed shall be in closed and sealed bags or containers. Any damaged bags or containers shall be replaced. Seed shall be stored in a dry area, safe from vehicle or rodent damage.
- B. Delivery of lime or fertilizer in bulk or in bags shall be stored in a safe, dry place. Bags shall not be placed on the ground. Bulk materials may be spread immediately when delivered in bulk spreading vehicles.
- C. Straw delivered for mulching or other erosion control needs shall be protected from rainfall and ground moisture.

PART 2 - PRODUCTS

2.01 TOPSOIL

- A. Existing topsoil on the construction site shall be salvaged. This shall consist of the top 4-6 inches of soil from the disturbed areas after site clearing is complete. The topsoil shall be a rich, friable soil containing decaying organic matter but will be free of large stones, roots, sticks, weeds and any toxic material harmful to plant growth.

- B. Additional topsoil, if needed, shall be imported from an off-site source provided by the Contractor. Natural on-site soils may be blended with imported materials to provide desired results.
- C. For bidding purposes, the Contractor shall include in his Base Bid top soil for all disturbed areas receiving Seeding.

2.02 SEED

- A. All seeds shall comply with the seed laws of the State of Mississippi and current regulations. The seed shall be delivered in bags showing percent of germination and purity of seed, also the percent of obnoxious weeds and inert matter. The seed or seed mixture and planting shall conform to the following planting schedule.

1. Spring Mixture (March 1 to September 1)

	<u>Percent Purity</u>	<u>Percent Germination</u>	<u>Mix (Dry wt.) Pounds Per Acre</u>
Hulled Burmuda Grass	95	90	20
Pensacola Bahiagrass			<u>15</u>
		Total	35 lbs. / acre

2. Fall Mixture (September 1 to March 1)

	<u>Percent Purity</u>	<u>Percent Germination</u>	<u>Mix (Dry wt.) Pounds Per Acre</u>
Unhulled Bermuda Grass	95	90	20
Pensacola Bahiagrass			15
Rye Grass	95	80	<u>15</u>
		Total	50 lbs. / acre

2.03 ACCESSORIES

- A. Mulching Material: Oat or wheat straw, free from weeds, foreign matter detrimental to plant life, and dry.
- B. Erosion Control Blanket: Minimum 0.5 lbs./sq.yd. straw material sewn between two layers of biodegradable net similar and equal to S150 as manufactured by North American Green.
- C. Fertilizer: Use a common 13-13-13 mixture at a rate of 600 lbs. per acre.
- D. Water: Clean, fresh and free of substance or matter which could inhibit vigorous growth of grass.
- E. Lime: Ground agricultural limestone.

F. Wood Pegs: Softwood, sufficient in size and length to ensure anchorage of sod on slope.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that all other work has been completed that would disrupt or disturb the seeded areas.

3.02 PREPARATION OF SEEDBED

A. Prepare seedbed to eliminate low spots, uneven areas, or erosion gullies. Maintain lines, grades, profiles and contours shown on the plans. Make changes gradual and blend slopes into level areas.

B. Remove foreign materials, weeds, and undesirable plants. Cover any exposed subsoil.

C. Expect in areas of future buildings and pavement, spread topsoil to a minimum depth of 6 inches to the cut and fill slopes and to other unpaved areas.

D. Scarify subsoil to a depth of four (4) inches. Repeat scarifying in areas where hauling and spreading equipment has compacted the subsoil.

3.03 LIME

A. Apply lime at a uniform rate of 2 tons per acre after the topsoil has been applied. Apply 1 ton/ac. of lime on two separate passes in cross directions.

B. Mix lime into the upper 4 inches of soil by disk.

3.04 FERTILIZER

A. Apply fertilizer at a uniform rate of 600 lbs./ac. over all disturbed areas after topsoil, if required, has been applied.

B. Do not apply fertilizer at the same time or with the same machine that will be used to apply the seed.

C. Mix the fertilizer thoroughly into the upper 4 inches of soil by disk.

3.05 SEEDING

A. Seeding shall be applied to all disturbed areas not receiving a specific surface treatment.

B. Each type of seed required shall be applied separately.

- C. Apply seed evenly by applying half the seed at each of two intersecting directions. Do not sow immediately following a rain, when ground is too dry, or during windy periods.
- D. Cover the seed by light raking, dragging a chain over area, or other pre-approved method.
- E. Firm the soil around the seed with a roller or cultipacker.
- F. Seeded areas shall be covered with mulch or erosion control blanket.
- G. Do not seed areas in excess of that which can be mulched on the same day.

3.06 MULCHING

- A. Apply the mulch cover at a rate of 1 ½ tons per acre to the specified areas immediately following the seeding and compacting operations.

3.07 EROSION CONTROL BLANKET

- A. Install the erosion control blanket to seeded areas immediately following the seeding and compacting operations according to manufacturer's written instructions.

3.08 MAINTENANCE

- A. Provide maintenance as needed after seeding operations (or separate portions thereof) are complete and continue until final acceptance of the contract.
- B. Needed maintenance will include reseeding, watering, mowing, repairing erosion rills, gullies, and other necessary operations to establish and maintain a vigorous vegetative cover.
- C. Water at 7-day intervals if raining exceeding 1.0 inch accumulation has not been received. Apply 1.0 inches of water at each application.
- D. Mow grass as needed to maintain grass in the 2.5 inch (minimum) to 4.0 inch (maximum) height range. Do not cut more than 1/3 of the grass blade at any one mowing. Do not mow within the first 21 days after grass emergence. Use only a rotary or reel mower with sharp blades (no bushhog or flail mowers).

3.09 MEASUREMENT AND PAYMENT

- A. Payment for Work in this section shall be included in the unit price / lump sum price as outlined in the Bid. Bid price shall include all cost of labor, materials, and incidentals complete.

END OF SECTION

SECTION 03100 – CONCRETE FORMWORK

PART 1 – GENERAL

1.01 RELATED REQUIREMENTS

- A. Division 1 Sections.
- B. Section 03200 – Concrete Reinforcement.
- C. Section 03300 – Cast-in-Place Concrete.

1.02 REFERENCES

- A. ACI 117 – Specification for Tolerances for Concrete Construction and Materials.
- B. ACI 301 – Specifications for Structural Concrete.
- C. ACI 318 – Building Code Requirements for Structural Concrete.
- D. ACI 347 – Guide to Formwork for Concrete.
- E. APA PS 1 – Voluntary Product Standard for Construction and Industrial Plywood.

1.03 SUBMITTALS

- A. Submit manufacturer's literature and data for waterstops.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Protect material delivered and place in storage off the ground away from dirt, moisture and other contaminants.

1.05 COORDINATION

- A. Coordinate this Section with other Sections of work which require attachment of components to formwork.

1.06 FORMWORK DESIGN REQUIREMENTS

- A. The design and engineering of all formwork and shoring, as well as its construction, installation and removal shall be the Contractor's responsibility.
- B. Formwork shall be designed under the direct supervision of a Professional Structural Engineer licensed in the State of Mississippi.
- C. Design of formwork, shoring, reshoring, bracing and other temporary supports for all loads and lateral pressures shall conform to the most stringent requirements of ACI 117, ACI 301, ACI 318, ACI 347 and the International Building Code.

D. Cured concrete shall conform to the shapes, lines and dimensions as indicated on the Drawings and forms shall be constructed in a manner such that the concrete surfaces conform to the more stringent tolerances of ACI 117 and ACI 347.

PART 2 – PRODUCTS

2.01 FORM MATERIALS

A. Plywood: Conforming to APA DOC PS 1, Exterior Grade, Class 1, sound undamaged sheets with clean and true edges and as follows:

1. Plywood intended for Exposed Concrete Surfaces: Panel Grade APA HDO (High Density Overlay).
2. Plywood intended for Non-exposed Concrete Surfaces: Panel Grade APA B-B.

B. Lumber: #2 grade Southern Yellow Pine with grade stamp clearly visible and used only on Non-exposed Concrete Surfaces.

C. Metal and Fiberglass: Form-facing panels that are clean and corrosion free and provide continuous, true and smooth concrete surfaces. Use steel column forms for exposed concrete columns.

D. Laminated Column Fiber Forms: Use for Non-exposed columns only. Round, spirally laminated paper fiber material type, non-reusable manufactured by Sonotube or approved equal.

2.02 FORMWORK ACCESSORIES

A. Form release agent: Form release agent shall be a colorless material which shall not bond with, absorb moisture, stain or adversely affect the concrete surfaces and must be compatible with toppings, curing compounds and other coatings.

B. Waterstops: Synko-Flex Waterstop, by Henry Co. or approved equal.

C. Joint Filler: ASTM D1751, asphalt impregnated and pre-molded fiberboard, $\frac{1}{4}$ " thick by the full thickness of the slab or joint, unless shown otherwise on the Drawings.

D. Form Ties, Anchors and Hangers: Form ties, anchors and hangers shall be of adequate strength to resist form displacement and shall not leave holes larger than 1/2" in the concrete.

E. Nails, spikes, lag bolts, through bolts, anchorages: Sized as required and of sufficient strength and character to maintain formwork in place while concrete is being placed.

PART 3 – EXECUTION

3.01 GENERAL

- A. Verify lines, levels, centers and measurements before proceeding with formwork. Ensure that dimensions agree with Drawings.

3.02 TOLERANCES

- A. Camber forms for deflection due to weight of fresh concrete in accordance with ACI 301.
- B. Construct formwork to the more stringent tolerances set by ACI 117 and ACI 301.

3.03 PREPARATION

- A. Clean all formwork and remove all rust from steel forms.
- B. Earth forms are permitted for footings, interior grade beams and for the interior face of exterior grade beams if soil conditions permit. In the absence of precise information, assume formwork will be required. The exterior face of perimeter grade beams, foundation walls and turned-down slabs shall be formed.

3.04 ERECTING FORMS

- A. Conform to the requirements of "Guide to Formwork for Concrete" ACI 347 unless specified otherwise.
- B. Position formwork in uniform patterns with aligned joints and space ties in vertical and horizontal patterns.
- C. Forms must be properly designed, braced, supported, erected, maintained and tight to produce concrete shapes conforming to the Drawings. Solidly butt, align and seal form joints and provide back-up joints to prevent leakage of mortar.
- D. Design, arrange and fabricate formwork for dismantling in such a manner as to not damage the concrete during stripping.
- E. Obtain approval before framing openings in structural members which are not indicated on the Drawings.
- F. Do not damage or displace moisture barriers or waterproofing.

3.05 CHAMFERS

- A. Provide $\frac{3}{4}$ " chamfers at all external corners of beams, columns and walls unless noted otherwise on plans.

3.06 FORM RELEASE AGENT

- A. Prior to the placement of reinforcing steel, anchoring or embedded devices and in compliance with the manufacturer's direction apply form release agent to the contact surfaces. Apply form release agent evenly and do not allow excess to accumulate in forms or to come in contact with concrete surfaces against which fresh concrete will be placed.
- B. Do not apply form release agent to areas where concrete surfaces will receive special finishes or applied coverings which are affected by agent.

3.07 EMBEDMENTS AND OPENINGS

- A. Install and secure in the correct position inserts, embeds, and other accessories according to the manufacturer's instructions. Position and secure against displacement- conduit sleeves, miscellaneous steel, bolts, casings, slots, reglets, masonry anchorages, other devices and components of other Work.
- B. Use templates as required to locate anchor bolts and secure with two nuts into position.
- C. Ensure embedded items are not disturbed during concrete placement.
- D. Construct temporary formwork openings where required to facilitate cleaning and inspection.
- E. Provide formed openings where required to accommodate work of other trades. Determine size and location of openings and recesses from trades providing such items.

3.08 FORM CLEANING

- A. Before the placing of concrete, thoroughly clean forms and adjacent surfaces by removing dirt, sawdust, wood, and other deleterious materials.
- B. During cold weather, remove ice and snow from forms. Do not use de-icing salts.

3.09 SHORING AND SUPPORTS

- A. Do not remove shores or reshores earlier than recommended by ACI 301 and ACI 347.

3.10 FORM REMOVAL

- A. Do not remove forms, bracing or shoring until members have acquired sufficient strength to support its own weight and all construction and design loads which may be imposed upon it.

- B. Remove forms carefully and in such a manner as to not damage concrete surfaces.

3.11 FORM RE-USE

- A. Do not reuse wood formwork more than 3 times for concrete surfaces to be exposed to view. Do not patch formwork.

END OF SECTION

SECTION 03200 – CONCRETE REINFORCEMENT

PART 1 – GENERAL

1.01 RELATED REQUIREMENTS

- A. Division 1 Sections.
- B. Section 03100 – Concrete Formwork.
- C. Section 03300 – Cast-in-Place Concrete.
- D. Section 01402 – Special Inspections and Testing.

1.02 REFERENCES

- A. ACI 117 – Specification for Tolerances for Concrete Construction and Materials.
- B. ACI 301 – Specifications for Structural Concrete.
- C. ACI 315 – Details and Detailing of Concrete Reinforcement.
- D. ACI 318 – Building Code Requirements for Structural Concrete.
- E. ACI SP66 – ACI Detailing Manual.
- F. ASTM A1064 – Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
- G. ASTM A615 – Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
- H. ASTM A706 – Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.
- I. AWS D1.4 – Structural Welding Code – Reinforcing Steel
- J. CRSI – Manual of Standard Practice and Documents 63 & 65.

1.03 SUBMITTALS

- A. Shop Drawings shall be submitted and shall include the reinforcing steel, dowels and embedded steel members. At a minimum- include the grade, quantity, length, size, location, mark, splice lengths, stirrup spacing, support devices, and bending and cutting schedules for reinforcing steel, welded wire fabric and related items. Placement drawings shall include plans, cuts, details, control joint locations and shall indicate the quantity, length, size, location, mark and schedules for all reinforcing. Detail reinforcing steel in accordance with ACI 315 and CRSI Standards.
- B. Do not use reproductions of the Contract Drawings for shop drawing submittals.

- C. Submit manufacturer's literature for mechanical anchorage devices.
- D. Upon request, submit Certified Mill Test Reports and/or Manufacturer's Certificate that indicates product(s) meet or exceed the requirements of ACI, ASTM, and other project requirements.
- E. Upon request, submit Welder's Certificates which indicate that the welder has AWS qualifications for the intended Work within the previous 12 months.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Protect material delivered and place in storage off the ground away from dirt, moisture and other contaminants.

1.05 STRUCTURAL SPECIAL INSPECTION AND TESTING

- A. Contractor shall coordinate and schedule in a timely manner with the Structural Testing/Inspection Agency to perform the following inspections and tests:
 - 1. Inspection of reinforcing steel, bar supports and mechanical anchorages for size, grade, spacing and location prior to concrete placement.
 - 2. Inspection of reinforcing cover requirements per ACI 318.

PART 2 – PRODUCTS

2.01 REINFORCEMENT

- A. Reinforcing Bars: ASTM A615, deformed, Grade 60.
- B. Joint Dowel Bars: ASTM A615, Grade 40 Minimum or ASTM A36, smooth, round, plain bars.
- C. Welded Wire Fabric: ASTM A1064, in flat sheets, unfinished.
- D. Fiber Reinforcement: Use FiberForce 300 by ABC Polymer Industries or Approved Equal at an application rate of 1.5 pounds per cubic yard. Shall be a synthetic Micro-Fiber, Fibrillated Configuration complying with ASTM D7508/D7508M and ASTM C1116/C1116M.

2.02 REINFORCEMENT ACCESSORY MATERIALS

- A. Steel Tie Wire: Minimum 16 1/2 gage annealed type.
- B. Bar Supports, Chairs, Spacers: Bar supports shall be as specified in CRSI "Manual of Standard Practice". For bar supports in contact with formwork for surfaces exposed to view; exposed to weather; receive plaster or paint; and surfaces which normally contain water- Use CRSI

Class 1-plastic protected steel or CRSI Class 2 stainless steel. For other areas, unless specified otherwise, use CRSI Class 3- bright plastic. On ground, concrete brick (4000 psi minimum) shall be permitted. Do not use wood, clay brick or expansive materials.

- C. Do not puncture vapor barrier. Contractor shall use Vertical Reinforcement Bar Positioners to keep rebar centered in CMU block. Provide units which are hot-dip galvanized after fabrication and designed for the number of bars indicated.

PART 3 – EXECUTION

3.01 FABRICATION

- A. Fabricate in accordance with ACI 315 and CRSI "Manual of Standard Practice".
- B. Reinforcing bars shall be cold bent only. Do not bend in a manner which will weaken the materials and do not use heat or flame to bend or cut the reinforcing steel.
- C. Reinforcing shall not be welded unless approved by the Structural Engineer of Record.

3.02 INSTALLATION

- A. Clean reinforcing of dirt, loose rust and foreign materials before placing concrete.
- B. Place reinforcing in the required position and support and secure against displacement during pour in accordance with CRSI and ACI standards.
- C. Do not splice reinforcing except as indicated on the Drawings.
- D. Maintain cover and tolerances as specified in ACI 318, unless indicated otherwise on the Drawings.

END OF SECTION

SECTION 03300 – CAST-IN-PLACE CONCRETE

PART 1 – GENERAL

1.01 RELATED REQUIREMENTS

- A. Division 1.
- B. Division 2.
- C. Division 5.
- D. Section 03100 – Concrete Formwork.
- E. Section 03200 – Concrete Reinforcement.
- F. Section 01402 – Special Inspections and Testing.

1.02 REFERENCES

- A. ACI 214 – Guide to Evaluation of Strength Test Results in Concrete.
- B. ACI 301 – Specifications for Structural Concrete.
- C. ACI 302.1R – Guide for Concrete Floors and Slab Construction.
- D. ACI 304 – Guide for Measuring, Mixing, Transporting and Placing Concrete.
- E. ACI 304.2R – Placing Concrete by Pumping Methods.
- F. ACI 305R – Guide to Hot Weather Concreting.
- G. ACI 306R – Guide to Cold Weather Concreting.
- H. ACI 308.1 – Standard Specification for Curing Concrete.
- I. ACI 308R – Guide to Curing Concrete.
- J. ACI 309R – Guide for Consolidating Concrete.
- K. ACI 311.6 – Specification for Ready Mixed Concrete Testing Services.
- L. ACI 318 – Building Code Requirements for Structural Concrete.
- M. ASTM C31 – Standard Practice for Making and Curing Concrete Test Specimens in the Field.
- N. ASTM C33 – Standard Specifications for Concrete Aggregates.
- O. ASTM C39 – Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
- P. ASTM C94 – Standard Specification for Ready-Mixed Concrete.

- Q. ASTM C136 – Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
- R. ASTM C150 – Standard Specification for Portland Cement.
- S. ASTM C171 – Standard Specification for Sheet Materials for Curing Concrete.
- T. ASTM C172 – Standard Practice for Sampling Freshly Mixed Concrete.
- U. ASTM C173 – Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
- V. ASTM C260 – Standard Specification for Air-Entraining Admixtures for Concrete.
- W. ASTM C309 – Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
- X. ASTM C494 – Standard Specification for Chemical Admixtures for Concrete.
- Y. ASTM C618 – Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for use in Concrete.
- Z. ASTM E1155 – Standard Test Method for Determining F_F Floor Flatness and F_L Floor Levelness Numbers.

1.03 SUBMITTALS

- A. Concrete Mix Design: Submit a written mix design for each class of concrete specified which conforms to the requirements of ACI 301. Include the following: Concrete Strength at 28 Days; Water/Cement Ratio; Slump; Air Content; Proportions of Fine and Coarse Aggregates, Cementitious Materials and Water; Brand and Type of Cement, Fly Ash and Aggregate; Admixture Type and Dosage.
- B. Concrete Batch Plant Certification: Submit the concrete supplier's batch plant certification(s) by the National Ready-Mix Association.
- C. Aggregate Base Sieve Analysis: Submit a current sieve analysis report (sampled within the past 60 days) of the aggregate base and choker material.
- D. Product Data: Product Data on Soft Preformed Joint Fillers; Admixtures, Attachment Accessories and Construction Joint Locations indicated on the Shop Drawings.

1.04 QUALITY ASSURANCE

- A. All concrete work on this Project shall conform to all requirements of ACI 301 – Specifications for Structural Concrete published by the American Concrete Institute, except as modified by these contract documents.
- B. All concrete work shall conform to the requirements of ACI 318 - Building Code Requirements for Structural Concrete and CRSI – Manual of Standard Practice, except where more stringent requirements are specified.
- C. All Concrete work shall conform to the requirements of ACI 305R “Guide to Hot Weather Concreting” and ACI 306R “Guide to Cold Weather Concreting”.

1.05 STRUCTURAL SPECIAL INSPECTION AND TESTING

- A. Contractor shall coordinate and schedule in a timely manner with the Structural Testing/Inspection Agency to perform the following inspections and tests:
 1. Inspection of reinforcing steel placement and installation. Verify grade, size, quantity, quality, location, spacing, proper support and concrete cover/clearance.
 2. Inspection of anchors to be installed prior to concrete placement. Verify compliance of: diameter, grade, type, length, number placement and embedment length.
 3. Verify that the correct concrete mix design is being used and that the concrete appears to be properly mixed in the truck.
 4. Perform a slump test for each load of concrete and record the use of water and admixtures. Perform additional slump tests after any adjustments to the concrete.
 5. Cast, Cure and Test cylinders of the concrete placed on the Project, all in accordance with ASTM C31 and ASTM C39 and as follows: Mold four(4) specimens per set for compressive strength testing; one set for each 100 or less cubic yards of each mix design placed in any one day. Perform one compressive break at 7 days and two at 28 days. Hold one specimen to be broken at the direction of the Architect/Engineer if compressive strength appears inadequate. In addition, for each set of molded specimens record the following:
 - a. Slump test in accordance with ASTM C143.
 - b. Air Content in accordance with ASTM C173.

- c. Temperature, ambient and concrete. Test hourly when air temperature is 40 degrees F and below, and when 80 degrees and above; and each time a set of compression test specimens are made.
- d. Verify mix design and additions, if any, of water and/or admixtures. Verify location of placement.
- 6. Inspection for maintenance of specified curing temperatures and techniques.
- 7. Inspect formwork for shape, location and dimensions of the concrete members being formed
- 8. Reports for compression tests shall be sent to the Architect/Engineer on the day in which the tests are performed. The compression tests shall include: The name of the project; the name of testing agency; design compressive strength; cylinder number, date and location of placement; compressive break strength and type of break.

B. Slabs on Grade Floor Surface Flatness: Test floor flatness and levelness per ASTM E1155 "Standard Test Method for Determining F_F Floor Flatness and F_L Floor Levelness Numbers. F_F 25/ F_L 20 minimum overall for composite of all measured values and F_F 17/ F_L 12 minimum for any individual floor section.

PART 2 – PRODUCTS

2.01 CONCRETE MATERIALS

- A. Material Source: Use only one type and source of material throughout the Project.
- B. Cement: In accordance with ASTM C150, Type I, unless noted otherwise on the Drawings. If reactive aggregates are present in the area use a low alkali cement containing less than 0.6 percent alkalis.
- C. Fine Aggregates: Use a fine aggregate in accordance with ASTM C33.
- D. Coarse Aggregates: Gravel or crushed stone in accordance with ASTM C33 and nominal maximum size not to exceed the least of:
 - 1. One-fifth the narrowest dimension between sides of the forms.
 - 2. One-third the depth of slabs.
 - 3. Three-fourths the minimum specified clear spacing between individual reinforcing bars or wires, bundles of bars, prestressed reinforcement, individual tendons, bundled tendons, or ducts.

- E. Fly Ash: Use in accordance with ASTM C618 a Class C with a loss on ignition of less than one percent or Class F with a loss on ignition of less than 5 percent.
- F. Water: Clean, potable and not detrimental to concrete and in accordance with ASTM C1602.
- G. Air Entraining Agent: In accordance with ASTM C260.
- H. Water-Reducing Admixtures: In accordance with ASTM C494, Type A and not containing more chloride ions than present in municipal drinking water.
- I. Mid-Range/High-Range: In accordance with ASTM C494 and not containing more chloride ions than present in municipal drinking water.
- J. Chlorides: Chlorides of any form shall not be used in concrete.
- K. Concrete Curing Compound: In accordance with ASTM C309 and at the Contractor's option a water based curing compound with a minimum solids content of 20% may be used.
- L. Retarders and Accelerants: In accordance with ASTM C494.

2.02 ACCESSORIES

- A. Vapor Retarder/Barrier: ASTM E1745, Class A and shall have a maximum vapor performance of 0.01 perms when tested in accordance with ASTM E96. Vapor barrier shall be no less than 15 mils thick.
Acceptable manufacturers: Stego Industries; WR Meadows; Poly-America, Yellow Guard; Viper II, Vapor Check II.

Placement: Lap the membrane over the footings and seal to the vertical foundation walls with two-sided tape. Seal around pipes, support columns or any other penetration with an elastomeric sealant to create a monolithic membrane between the surface of the slab and moisture sources below and at the slab perimeter. Holes or openings through the membrane should be effectively sealed with an elastomeric sealant to maintain the integrity of the membrane. Overlap joints a minimum of 12 inches and seal. Provide a mastic sealant by manufacturer for sealing between and around pipe or conduit clusters.
- B. Non-Shrink Grout: Use a factory premixed (bagged) grout consisting of cement, non-metallic aggregate, water reducing and plasticizing agents and requiring only water at the site; capable of developing a minimum compressive strength of 2,400 psi in 48 hours and 5,000 psi in 28 days (ready-mix not allowed).
- C. Joint Filler: ASTM D1751, asphalt impregnated and pre-molded fiberboard, unless shown otherwise on the Drawings.

D. Sealant for Pavements, Sidewalks, Curb and Gutter: Silicone joint sealant Dow Corning 888 or approved equal.

2.03 CONCRETE MIX

A. Concrete shall meet the following criteria:

1. Compressive Strength: Strength at 28 days shall be as specified on the Drawings or other specification sections.
2. Maximum Water/Cementitious Material Ratio: Shall be 0.5 (by weight) or below for all concrete.
3. Maximum Slump shall be as follows:
 - a. Design concrete for a maximum of 5 inches.
 - b. If a slump greater than 5 inches is desired, design concrete for a $2 \frac{1}{2}$ inches $\pm 1 \frac{1}{2}$ inches slump prior to the addition of the water reducing admixture. The maximum slump after the addition of the water reducing admixture shall be 8 inches.

B. Proportioning of concrete ingredients shall be by ACI 301 Method 1, laboratory trial batches or Method 2.

C. Air entraining agent shall be added for exterior exposed normal weight concrete. Entrained air content shall be 5 percent $\pm 1 \frac{1}{2}$ percent.

D. Use of Calcium Chloride is prohibited.

E. Not more than 20% of the cement may be replaced with fly ash.

F. During cold weather, accelerating admixtures may be used only when approved by the Architect/Engineer. Cold weathering requirements of ACI 306 are still required if admixture is used.

G. During hot weather, retarding admixtures may be used only when approved by the Architect/Engineer. Hot weathering requirements of ACI 305 are still required if admixture is used.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Verify that all anchors, seats, plates, reinforcement, and other items to be cast into concrete are placed in the correct location, held securely in place and will not cause hardship in placing concrete.

B. Verify requirements for concrete cover over reinforcement.

3.02 PREPARATION

- A. Before placing new concrete on or against concrete that has already set, clean and roughen with a steel brush and apply a bonding agent. Apply bonding agent according to manufacturer's instructions.
- B. All trades and participants involved shall verify that all preparations have been administered and are in accordance with the Drawings and Specifications.

3.03 PLACEMENT OF CONCRETE

- A. Notify Architect/Engineer and Structural Testing/Inspection Agency not less than 48 hours prior to the placement of concrete.
- B. Place all concrete in accordance with ACI 301 and ACI 318.
- C. Deposit concrete as nearly as practical into its final position.
- D. Deposit concrete continuously between predetermined control, expansion and construction joints.
- E. Do not deposit concrete into excavations where there is standing water.
Do not deposit concrete when the Slump is outside of the specified limits.
Do not deposit concrete than has partially set or hardened.
- F. Do not interrupt successive placement; do not allow cold joints to form.
- G. Construction joints for grade beams shall be located at one third beyond the support unless indicated otherwise on the Drawings.
- H. Construction joints for floor slabs and floor beams shall be located in the middle third of the span.

3.04 VIBRATION

- A. Do not use vibrators for moving or flowing concrete within forms. Vibrate in accordance with ACI 301 and ACI 309.

3.05 CONCRETE FINISHING

- A. Finish all concrete in accordance with ACI 301.
- B. Rough form finish: For formed concrete that is not exposed to view.
- C. Smooth form finish: For formed concrete that is exposed to view or areas which will receive materials such as damp proofing, waterproofing, paint or other systems.
- D. Smooth rubbed finish: For areas exposed to view which have received smooth form treatment, no later than one day after form removal.

Concrete surface shall be moistened and rubbed with a carborundum brick or other abrasive until a uniform color and texture is produced. Do not apply cement grout other than that created by the rubbing process.

- E. Paving and sidewalks shall have a light broom finish.
- F. Prior to the placement of separate floor topping slabs, roughen substrate concrete surface and remove any deleterious material. After vacuum cleaning, apply a bonding agent to the substrate in accordance with the manufacturer's directions.
- G. Finish concrete to flatness and levelness tolerances per ASTM E1155 "Standard Test Method for Determining F_F Floor Flatness and F_L Floor Levelness Numbers. F_F 25/ F_L 20 minimum overall for composite of all measured values and F_F 17/ F_L 12 minimum for any individual floor section.

3.06 CONCRETE CURING

- A. Concrete shall be cured in accordance with ACI 301, ACI 308.1, ACI 308R, unless noted otherwise on the plans.
- B. Begin the curing procedures as soon as the concrete surface will not be damaged by the curing process.
- C. Keep the concrete surface moist and protect from premature drying. If a water based curing compound is to be used, apply in accordance with the manufacturer's directions to surfaces not to be protected by form work for 5 days. Take care to insure that the curing compound is compatible with the floor finish. Some floor finishes prohibit the use of curing compounds, Contractor is to verify.
- D. Some floor finishes must be water cured and chemical hardeners and sealers are not allowed.
- E. Continuously cure concrete for at a minimum of 7 consecutive days.

3.07 PATCHING CONCRETE

- A. Notify Architect/Engineer immediately upon discovery and before patching any defective or imperfect areas.
- B. Honeycombs, rock pockets and embedded debris are not acceptable. Notify Architect/Engineer immediately upon discovery.
- C. Repairs and patched imperfections must be made with non-shrink grout, in accordance with ACI 301 and with the written permission of the Architect/Engineer.

3.08 CUTTING CONCRETE

- A. Any cutting of concrete for the installation of other Work requires the written permission of the Architect/Engineer prior to commencement.

END OF SECTION

SECTION 05500 – METAL FABRICATIONS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Shop fabricated steel and aluminum items.
- B. Steel gates and hardware.

1.02 RELATED REQUIREMENTS

- A. Section 03300 – Cast-in-Place Concrete: Placement of metal fabrications in concrete.
- B. Section 09900 – Paints and Coatings: Paint finish.

1.03 REFERENCE STANDARDS

- A. ANSI A14.3 – American National Standard for Ladders – Fixed – Safety Requirements.
- B. ASTM A36/A36M – Standard Specification for Carbon Structural Steel.
- C. ASTM A53/A53M – Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
- D. ASTM A123/A123M – Standard Specification for Zinc (Hot Dip) on Iron and Steel Hardware.
- E. ASTM A153/A153M – Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- F. ASTM A283/A283M – Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates.
- G. ASTM A325 – Standard Specification for Structural Bolts, Steel, Heat Treated 120/105 ksi Minimum Tensile Strength.
- H. ASTM A325M – Standard Specification for Structural Bolts, Steel, Heat Treated 830 MPa Tensile Strength (Metric).
- I. ASTM A500/A500M – Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
- J. ASTM B211 – Standard Specification for Aluminum and Aluminum-Alloy Bar, Rod, and Wire.
- K. ASTM B211M – Standard Specification for Aluminum and Aluminum-Alloy Bar, Rod, and Wire (Metric).
- L. ASTM B221 – Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

- M. ASTM B221M – Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric).
- N. AWS A2.4 – Standard Symbols for Welding, Brazing, and Nondestructive Examination; American Welding Society.
- O. AWS 01.1/D1.1M – Structural Welding Code – Steel; American Welding Society.
- P. AWS D1.2/01.2M – Structural Welding Code – Aluminum; American Welding Society.
- Q. SSPC-Paint 15 – Steel Joist Shop Primer; Society for Protective Coatings.
- R. SSPC – Paint 20 – Zinc-Rich Primers (Type I, “Inorganic,” and Type II, “Organic”); Society for Protective Coatings.
- S. SSPC-SP 2 – Hand Tool Cleaning; Society for Protective Coatings.

1.04 SUBMITTALS

- A. See Section 01300 – Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
 - 1. Indicate welded connections using standard AWS A2.4 welding symbols.
- C. Welders’ Certificates: Submit certification for welders employed on the project, verifying AWS qualification within the previous 12 months.

PART 2 – PRODUCTS

2.01 MATERIALS – STEEL

- A. Steel Sections: ASTM A36/A36M.
- B. Steel Tubing: ASTM A500, Grade B cold-formed structural tubing.
- C. Plates: ASTM A283.
- D. Pipe: ASTM A53/A53M, Grade B Schedule 40, hot-dip galvanized finish.
- E. Bolts, Nuts, and Washers: ASTM A325 (ASTM A325M), Type 1, galvanized to ASTM A153/A153M where connecting galvanized components.

- F. Welding Materials: AWS 01.1/01.1M; type required for materials being welded.
- G. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.
- H. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I – Inorganic, complying with VOC limitations of authorities having jurisdiction.

2.02 MATERIALS – ALUMINUM

- A. Extruded Aluminum: ASTM B221 (ASTM B221M), 6063 alloy, T6 temper.
- B. Aluminum-Alloy Bars: ASTM B211 (ASTM B211M), 6061 alloy, T6 temper.
- C. Welding Materials: AWS D1.2/D1.2M; type required for materials being welded.

2.03 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Continuously seal joined members by intermittent welds and plastic filler.
- D. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- E. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.04 FABRICATED ITEMS

- A. Guard Rails: Not Applicable.
- B. Bollard: Not Applicable.
- C. Ledge Angles, Shelf Angles, Channels, and Plates not Attached to Structural Framing: For support of metal decking, joists, and masonry; galvanized finish.
- D. Lintels: As detailed; prime paint finish.
- E. Downspout Pipe Boots: Not Applicable.
- F. Mechanical Equipment Cage and Hardware: Not Applicable.

2.05 FINISHES

- A. Prime paint all steel items.
 - 1. Exceptions: Galvanize items to be embedded in concrete and items to be embedded in masonry.
- B. Prepare surfaces to be primed in accordance with SSPC-SP2.
- C. Prime Painting: One coat.
- D. Galvanizing of Structural Steel Members: Galvanize after fabrication to ASTM A123/A123M requirements.
- E. Galvanizing of Non-Structural Items: Galvanize after fabrication to ASTM A123/A123M requirements.

2.06 FABRICATION TOLERANCES

- A. Squareness: 1/8 inch maximum difference in diagonal measurements.
- B. Maximum Offset Between Faces: 1/16 inch.
- C. Maximum Misalignment of Adjacent Members: 1/16 inch.
- D. Maximum Bow: 1/8 inch in 48 inches.
- E. Maximum Deviation from Plane: 1/16 inch in 48 inches.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.

3.02 PREPARATION

- A. Clean and strip primed steel items to bare metal where site welding is required.
- B. Supply setting templates to the appropriate entities for steel items required to be cast into concrete or embedded in masonry.

3.03 INSTALLATION

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.

- C. Field weld components indicated on shop drawings.
- D. Perform field welding in accordance with AWS D1.1/D1.1M.
- E. Obtain approval prior to site cutting or making adjustments not scheduled.
- F. After erection, prime welds, abrasions, and surfaces not shop primed or galvanized, except surfaces to be in contact with concrete.

3.04 TOLERANCES

- A. Maximum Variation From Plumb: $\frac{1}{4}$ inch per story, non-cumulative.
- B. Maximum Offset from True Alignment: $\frac{1}{4}$ inch.
- C. Maximum Out-of-Position: $\frac{1}{4}$ inch.

END OF SECTION

SECTION 09900 - PAINTING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work required under this Section consists of all interior and exterior coatings including paint, stains, transparent coatings and opaque finished and related items to complete Work as indicated on Drawings and described in Specifications.
- B. The Work includes painting and finishing of existing and new interior and exterior exposed items and surfaces.
- C. Unless otherwise indicated, painting is not required on surfaces such as wall or ceilings in concealed areas and generally inaccessible areas, furred areas, pipe spaces, and duct shafts.

1.02 RELATED REQUIREMENTS

- A. Division 1
- B. Section 03300 – Cast-in-Place Concrete
- C. Section 05500 – Metal Fabrications

1.03 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Company specializing in manufacturing the products specified, with minimum three years' documented experience.
- B. Applicator Qualifications: Company specializing in performing painting work similar in scope to the work of this project with minimum three years' experience.

1.04 SUBMITTALS

- A. See Section 01330 – Submittals for submittal procedures.
- B. Provide a complete list of products to be used. Include manufacturer's product data sheets on each paint and coating product, including paint label analysis and application for each material proposed for use.
- C. Samples: Submit three paper "draw down" samples, 8 1/2 x11 inch in size, illustrating the range of colors available for each finishing product specified. Where sheen is specified, submit samples only in that sheen. Where sheen is not specified, discuss sheen options with Engineer before preparing samples, to eliminate sheens not required.
- D. Samples: Submit two paper chip samples 8 1/2 x 11 inch in size illustrating range of colors and textures available for each surface finishing product scheduled.

- E. Purchase of materials shall be made after preparation of color schedule.
- F. Certification: By manufacturer that paints and finishes comply with VOC limits specified.
- G. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. Extra Paint and Finish Materials: 1 gallon of each color; from the same product run, store where directed.
 - 2. Label each container with color in addition to the manufacturer's label.
- H. Coating Maintenance Manual: As part of the close-out documents, the contractor shall provide a coating maintenance manual, such as Sherwin-Williams "Custodian Project Color and Product Information" report; or other acceptable paint manufacturer's coating and maintenance manual.
 - 1. Manual shall include: and Area Summary with finish schedule, Area Detail designating where each product/color/finish was used, product data pages, Material Safety Data Sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used.

1.05 COOPERATION

- A. All other Sections shall be examined and painting shall be included in this Section where not expressly eliminated. Any damaged spots on material mentioned as finished under their Sections shall be touched up under this Section.
- B. All exposed metal accessories, fixtures, equipment, etc. if furnished in prime coats shall be finished to match wall application adjacent or as directed by Engineer.
- C. Protect surfaces and objects, outside of the building as well as grounds and adjacent properties against soiling, damage or injury by employees, materials, tools, or equipment used in connection with this section of the work. Repair any damage so caused.
- D. If woodwork, metal or any other surface to be finished cannot be put in proper condition for finishing by customary cleaning, sanding and puttying operation, notify the Engineer in writing or assume responsibility for, and rectify, any unsatisfactory finish resulting.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. All materials shall be delivered to the job not more than seven days or not less than two days prior to commencement of painting. Deliver in original

unbroken containers bearing the manufacturer's name and type of paint. Empty containers shall be punctured and kept on the job until completion of painting.

- B. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- C. Container Label: Include manufacturer's name, paint type, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- D. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degree F, in ventilated area, and as required by manufacturer's instructions.
- E. Store materials in tightly covered containers. Maintain containers in a clean condition, free of foreign materials and residue.
- F. Ensure storage area is neat and orderly. Remove oily rags and waste daily.

1.07 MAINTENANCE MATERIALS

- A. Submit paint finish information in accordance with the requirements of Section 01330 – Submittals and Section 01700 – Contract Closeout.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- A. Provide paints and finished used in any individual system from the same manufacturer, no exceptions.
- B. As a "Standard of Quality," the work in this section is based on products of Sherwin-Williams. The following manufacturers are acceptable only after compliance with the requirements of this section and color selections.
 - 1. Benjamin Moore & Co: www.benjaminmoore.com.
 - 2. PPG Paints: www.ppgpaints.com/#sle
- C. Products other than those specified will be considered for approval as equals after submittal of pertinent technical data for review.

2.02 GENERAL

- A. All paint shall be manufacturer's premium grade of ready-mixed custom tinted products. Paint for all wet areas shall be mildew and fungi resistant.

- B. Before starting painting, Contractor shall furnish a complete list of all materials he proposed to use and shall not proceed until approvals stated in this Section are obtained.
- C. All paint materials shall be of such consistency that there will be no excessive settlement, caking or thickening in the container.
- D. Painting materials will be available for inspection at all times to determine if specified and approved materials are being used.
- E. Minimum Coating Thickness: Apply materials at rate to establish a total dry film thickness as indicated or, if not indicated, as recommended by coating manufacturer.

2.03 SCHEDULES FOR EXTERIOR SURFACES

- A. Exterior Metal - Ferrous: Use on all miscellaneous metals except those with galvanized coatings, stainless steel and factory coatings.
 - 1. Acrylic Urethane – Gloss Finish
 - a. 1 coat of Macropoxy 646 (B58 Series)
 - b. 2 coats Pro Industrial WB Acrolon 100 Waterbased Urethane (B65 Series) High Gloss finish
- B. Exterior Metal – Galvanized: Use on galvanized metal surfaces, including doors, frames and other miscellaneous galvanized metal surfaces.
 - 1. Alkyd Gloss Finish
 - a. 1st Coat: Sherwin-Williams Pro-Cryl® Universal W/B Primer, B66-310 Series
 - b. 2nd Coat: Sherwin-Williams All Surface Enamel, A11 Series
 - c. 3rd Coat: Sherwin-Williams All Surface Enamel, A11 Series
- C. Exterior Metal – Aluminum: Use on aluminum surfaces to be painted except those with factory coatings.
 - 1. Latex Gloss Finish
 - a. 1st Coat: Sherwin-Williams Duration® Exterior Latex Acrylic Gloss Coating, K34 Series

2.04 SCHEDULES FOR INTERIOR SURFACES

- A. Exterior Metal – Ferrous: Using this finish on all interior ferrous metals including doors and frames, except those with galvanized coatings, stainless steel and factor coatings. System will be used on mechanical

and electrical items requiring paint such as louvers and grilles, or touch-up.

1. Eggshell/Satin Finish

- a. 1st Coat: Sherwin-Williams Surface Enamel Oil Primer, A11W210
- b. 2nd Coat & 3rd Coat: Sherwin-Williams ProClassic Alkyd Satin, B33W220 Series

B. Interior Metal – Galvanized: Use this on all interior galvanized metals.

1. Eggshell/Satin Finish

- a. 1st Coat: Sherwin-Williams Pro-Cryl Universal Acrylic Primer B66-310 Series
- b. 2nd Coat & 3rd Coat: Sherwin-Williams ProClassic Alkyd Satin, B33W220 Series

C. Interior Metal – Aluminum: Use this on all interior aluminum surfaces to be painted except those with factory coatings.

1. Eggshell/Satin Finish

- a. Primer: Sherwin-Williams Multi-Purpose Interior/Exterior Latex Primer B51W00450
- b. 1st Coat & 2nd Coat: Sherwin-Williams ProClassic Waterborne Satin, B20 Series

D. Interior Cementitious Trim – Paint Finish: Use this on all trim, baseboards, and casings.

1. Latex Gloss Finish

- a. 1st Coat: Sherwin-Williams Loxon® Concrete & Masonry Acrylic Primer A24 Series
- b. 2nd Coat & 3rd Coat: Sherwin-Williams - All surfaces High Gloss Enamel A41 Series

E. Interior Gypsum Board: Walls, Ceilings, Gypsum Board, Plaster Board, etc.

1. Latex Satin Finish

- a. Primer: Sherwin-Williams High Build Interior Latex Primer B28W08601 *New Gypsum Board; follow data pages for*

application procedures. If drywall has been painted use Multi-Purpose Latex Primer (6503-57098).

- b. 2 Coats: S Sherwin-Williams SuperPaint® Interior Latex Satin Extra A87W01151

F. Interior Wood - Painted

1. Latex – Semi-Gloss

- a. 1st Coat: Sherwin-Williams Premium Wall & Wood Primer, B28W8111 (4 mils wet, 1.8 mils dry)
- b. 2nd Coat & 3rd Coat: Sherwin-Williams ProMar 200 Zero VOC Latex Semi-Gloss, B31-2600 Series

2. Latex - Satin

- a. 1st Coat: Sherwin-Williams Premium Wall & Wood Primer, B28W8111 (4 mils wet, 1.8 mils dry)
- b. 2nd Coat & 3rd Coat: Sherwin-Williams ProClassic Waterborne Acrylic Satin, B20 Series

G. Interior Wood – Stained Surfaces

1. High Gloss Clear Varnish

- a. Coat 1: Sherwin-Williams Wood Classics® Interior Oil Stain Natural A49C00200
- b. Coat 2 & Coat 3: Sherwin-Williams Wood Classics® FastDry Varnish High Gloss Clear A66V00391

H. Interior Concrete - Acrylic

1. Latex – Semi-Gloss

- a. Primer: Sherwin-Williams Loxon Filler Surface A24W200 Series
- b. Intermediate: DTM Acrylic
- c. Finish Coat: STM Acrylic Semi-Gloss

I. Interior Concrete - Epoxy

1. Latex – Semi-Gloss

- a. Primer: Sherwin-Williams Loxon Filler Surface A24W200 Series

- b. Intermediate: DTM Acrylic
- c. Finish Coat: DTM Acrylic Semi-Gloss

2.05 PAINT SPECIALTIES

- A. Wood filler shall be natural Paste Wood Filler.
- B. Rust inhibitive finish coat shall be Tnemec 99.
- C. Thinner shall be mineral spirits or manufacturer's recommended thinner.

PART 3 – EXECUTION

3.01 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Do not apply exterior paint and finishes during rain or snow, or when relative humidity is outside the humidity ranges required by the paint manufacturer.
- D. All painting shall be applied in strict accordance with the manufacturer's directions.

3.02 PREPARATION OF SURFACES

- A. All surfaces shall be clean and dry at the time any coating is applied. Base coats provided shall be in good condition and the surface well covered by touching up any bare or abraded spots.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Clean wood surfaces to be painted with scrapers, mineral spirits, and sandpaper as required. Sand smooth those finished surfaces exposed to view and dust off. Scape, clean and dry small seasoned knots and apply a thin coat of white shellac or other recommended sealer prior to priming coat. After priming, fill holes and imperfections in finished surfaces with putty, plastic wood filler, or exterior caulking compound as required; sand smooth when dried.
- D. Wood Surface to receive Opaque Finish: White off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill

nail holes and cracks after primer has dried; sand between coats. Back prime concealed surfaces before installation.

- E. Wood Surfaces to receive Transparent Finish: Wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats. Prime concealed surfaces with gloss varnish reduced 25 percent with thinner.
- F. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing. Reinstall removed items following the completion of painting each space or area.
- G. Remove mildew from impervious surfaces by scrubbing with a solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- H. Clean metal surfaces thoroughly with turpentine or other suitable solvents to remove dirt, oil, grease. Remove all ruse or scale by scraping or wire brushing and tough up with paint specified.
- I. Back priming shall be required for all exterior and interior woodwork, trim and cabinetry.

3.03 MIXING, TINTING AND THINNING

- A. Mix and prepare painting materials in accordance with manufacturer's directions.
 - 1. Thoroughly stir all materials before application to produce a uniform density. No material shall be reduced or changed in any way except as specified and only fresh material shall be used.
 - 2. Do not stir surface film into material. Remove film, if necessary, strain material before using.
- B. Do all tinting or matching of colors under the supervision of the Engineer. In all cases a sample shall be applied on the job and the Engineer must give his approval of it before work is actually done. Execute work in accordance with manufacturer's directions.
- C. Perform thinning, if necessary, only in accordance with manufacturer's instructions to obtain proper spraying or brushing viscosity. Excessive thinning that will cause sprayed paint to run, when proper coat thickness is obtained shall not be allowed.

3.04 APPLICATION

- A. All work shall be done in a workmanlike manner by skilled painters. All material shall be properly applied in even thorough coats, without runs, laps, chips, brush-marks, sages or other blemished.
- B. Apply products in accordance with manufacturer's written instructions.
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance, in thickness specified by manufacturer.
- E. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply additional coats until complete hide is achieved.
- F. Sand wood and metal surfaces lightly between coats to achieve required finish.
- G. Vacuum clean surface of loose particles. Use tack cloth to remove dust and particles just prior to applying the next coat.
- H. Wood surfaces to Receive Opaque Finish: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 4 weeks.
- I. Wood Surfaces to Receive Transparent Finish: Wipe of dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats. Prime concealed surfaces with gloss varnish reduced 25 percent with thinner.
- J. Metal Doors to be painted: Prime metal door top and bottom edge surfaces.
- K. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.

3.05 CLEANUP

- A. Finished work shall be free of all dust, debris or damage resulting from any activity under this Section.
- B. Clean up lap marks or paint spots from adjacent finishes.
- C. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.06 PROTECTION

- A. Protect finishes until completion of the project.
- B. Touch –up damaged finished after Substantial Completion. At completion of work of other trades, touch up and restore all damaged or defaced painted surfaces.

3.07 SCHEDULE OF PAINTING

- A. Apply surface finish to all wood, ferrous metal, galvanized metal, plaster, gypsum dry wall, concrete masonry units, aluminum and other building materials on entire project unless otherwise excluded on the Drawings or hereinafter specified.
 - 1. Prime coat specified herein will not be required on items delivered with prime or shop coats already applied.
 - 2. Do not paint over underwriter's label. Remove articles affixed to surfaces to be painted before painting and replace thereafter.
 - 3. Do all field touch-up of painting of miscellaneous steel, welds, miscellaneous metals and other shop prime painted items. This requirement shall insure that all ferrous metal shall have a minimum of one coat on all surfaces after erection completion.
 - 4. Items shipped with finish coat receive no further painting unless called for or required to cover surface defects.
- B. See Schedules for exterior surfaces under Part 2.
- C. See Schedules for interior surfaces under Part 2.

END OF SECTION

SECTION 13342 – METAL BUILDING SYSTEMS

PART 1 – GENERAL

1.01 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections.
- B. Section 01402 – Special Inspections and Testing.
- C. Section 03300 – Cast-in-Place Concrete.
- D. Section 05500 – Metal Fabrications.
- E. Section 09900 – Painting: Finish painting on primed steel surfaces.

1.02 REFERENCES

- A. AISC 303 – Code of Standard Practice for Steel Buildings and Bridges.
- B. AISC 341 – Seismic Provisions for Structural Steel Buildings.
- C. AISC 360 – Specification for Structural Steel Buildings.
- D. AISC – Specification for Structural Joints Using ASTM A325 or A490 Bolts.
- E. AISI S100 – North American Specification for the Design of Cold-Formed Steel Structural Members.
- F. ASHRAE 90.1-2013 – Energy Standard for Buildings Except Low-Rise Residential Buildings.
- G. ASTM A36 – Standard Specification for Carbon Structural Steel.
- H. ASTM A53 – Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc – Coated, Welded and Seamless.
- I. ASTM A108 – Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished.
- J. ASTM A123 – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- K. ASTM A307 – Standard Specification for Carbon Steel Bolts and Studs, 60000 PSI Tensile Strength.
- L. ASTM A325 – Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 KSI Minimum Tensile Strength.
- M. ASTM A475 – Standard Specification for Zinc-Coated Steel Wire Strand.

- N. ASTM A490 – Standard Specification for Structural Bolts, Alloy Steel, Heat Treated, 150 KSI Minimum Tensile Strength.
- O. ASTM A500 – Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
- P. ASTM A501 – Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
- Q. ASTM A529 – Standard Specification for High-Strength Carbon-Manganese Steel of Structural Quality.
- R. ASTM A563 – Standard Specification for Carbon and Alloy Steel Nuts.
- S. ASTM A653 – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- T. ASTM A755 – Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
- U. ASTM A792 – Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
- V. ASTM A992 – Standard Specification for Structural Steel Shapes.
- W. ASTM A1011 – Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength, Low-Alloy and High-Strength Low-Alloy with Improved Formability and Ultra-High Strength.
- X. ASTM A1039 – Standard Specification for Steel, Sheet, Hot Rolled, Carbon, Commercial, Structural, and High-Strength Low-Alloy, Produced by Twin-Roll Casting Process.
- Y. ASTM D2244 – Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumental Measured Color Coordinates.
- Z. ASTM D4214 – Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films.
- AA. ASTM E96 – Standard Test Methods for Water Vapor Transmission of Materials.
- BB. ASTM E108 – Spread of Flame Testing: Class 1A Rating.
- CC. ASTM E283 – Standard Test Method for Determining Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors under Specified Pressure Differences across Specimen.

- DD. ASTM E331 – Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
- EE. ASTM E1592 – Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference.
- FF. ASTM E1646 – Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference.
- GG. ASTM E1680 – Standard Test Method for Rate of Air Leakage through Exterior Metal Roof Panel Systems.
- HH. ASTM E2140 – Test Method for Water Penetration of Metal Roof Panel Systems by Static Water Pressure Head.
- II. ASTM F436 – Standard Specification for Hardened Washers.
- JJ. ASTM F1145 – Standard Specification for Turnbuckles, Swaged, Welded, Forged.
- KK. ASTM F1554 – Standard Specification for Anchor Bolts, Steel, 36, 55, and 105 KSI Yield Strength.
- LL. ASTM F3125 – Standard Specification for High Strength Bolts and Assemblies, Steel and Alloy Steel, 120 ksi and 150 ksi Minimum Tensile Strength.
- MM. AWS A2.4 – Standard Symbols for Welding, Brazing, and Nondestructive Examination.
- NN. AWS D1.1 – Structural Welding Code.
- OO. AWS D1.3 – Structural Welding Code – Sheet Steel.
- PP. SSPC – Steel Structures Painting Council - Steel Structures Painting Manual.
- QQ. COOL ROOF RATING COUNCIL (CRRC):
 - 1. ANSI/CRRC S100 – Standard Test Methods for Determining Radiative Properties of Materials.
- RR. Factory Mutual Approvals (FM Approvals):
 - 1. FM 4471 – Approval Standard for Class 1 Panel Roofs.
 - 2. FM 4880 – Approval Standard for Class 1 Fire Rating of Insulated Wall or Wall and Roof/Ceiling Panels, Interior Finish Materials or Coatings and Exterior Wall Systems.

3. FM 4881 – Approval Standard for Class 1 Exterior Wall Systems.
- SS. FM Global:
 1. FM 1-28 – Property Loss Prevention Data Sheet 1-28, Wind Design.
- TT. International Accreditation Service (IAS):
 1. Accreditation Criteria 472 (AC472) – Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems.
- UU. Metal Building Manufacturers Association (MBMA)
 1. Metal Building Systems Manual.
- VV. Underwriters Laboratories (UL):
 1. UL-58 – Tests for Uplift Resistance of Roof Assemblies.
 2. UL-790 – Standard Test Methods for Fire Tests of Roof Coverings.
 3. UL-2218 – Impact Resistance of Prepared Roof Covering Materials.

1.03 DEFINITIONS

- A. Traditional Metal Building System: Building system using either continuous or simple span "Z" or "C" purlins for support of roof covering material.
- B. Long Bay System (LBS): Building system using simple span, cold-formed, open web purlins to support roof covering material.
- C. Gable Symmetrical: Continuous frame building with ridge in center of building, consisting of tapered or straight columns and tapered or straight rafters. Sidewall girts may be continuous (by-passing columns) or simple span (flush in column line). Rafters may or may not have interior columns.
- D. Gable Unsymmetrical: Continuous frame building with an off-center ridge, consisting of tapered or straight columns and tapered or straight rafters. Eave height and roof slope may differ on each side of ridge. Sidewall girts may be continuous (by-passing columns) or simple span (flush in column line). Rafters may or may not have interior columns.
- E. Single Slope: Continuous frame building which does not contain ridge, but consists of one continuous slope from side to side. Building consists of straight or tapered columns and tapered or straight rafters. Sidewall girts may be continuous (by-passing columns) or simple span (flush in column line). Rafters may or may not have interior columns.

- F. Lean-to (LT): Building extension, which does not contain ridge, but consists of one continuous slope from side to side, usually with same roof slope and girt design as building to which attached.
- G. Roof Slope: Pitch expressed as inches of rise for each 12 inches of horizontal run.
- H. Acrylic-Coated Galvalume: Aluminum-Zinc coated steel with a thin clear acrylic finish coating eliminating the need for roll-forming oil and reducing incidence of field marking by handling or foot traffic.
- I. Building Eave Height: Nominal dimension measured from finished floor to top flange of eave strut.
- J. Building Width: Measured from outside to outside of side wall secondary structural member.
- K. Building Length: Measured from outside to outside of end wall secondary structural member.
- L. Auxiliary Loads: Dynamic loads induced by cranes, conveyors, or material handling systems.
- M. Collateral Loads: Weight of any non-moving equipment or material, such as ceilings, electrical or mechanical equipment, sprinkler systems, plumbing, or ceilings.
- N. Dead Load: Actual weight of building system as supplied by manufacturer supported by given member.
- O. Floor Live Loads: Loads induced on floor system by building occupants and possessions including but not limited to furniture and equipment.
- P. Roof Live Loads: Loads produced by maintenance activities, rain, erection activities, and or movable or moving loads but not including wind, snow, seismic, crane, or dead loads.
- Q. Roof Snow Loads: Gravity load induced by weight of snow or ice on roof, assumed to act on horizontal projection of roof.
- R. Seismic Loads: Loads acting in any direction on structural system due to action of an earthquake.
- S. Wind Loads: Loads on structure induced by forces of wind blowing from any horizontal direction.

1.04 DESIGN LOADS

- A. See Structural Drawings.

1.05 SUBMITTALS

- A. Submit under provisions of Section 01330.
- B. Shop Drawings:
 - 1. Complete fabrication and erection drawings with identification and assembly of building components. Show anchor bolt settings (including minimum required anchor bolt projection), transverse cross-sections, sidewall, endwall, and roof framing, flashing and sheeting, accessory installation details, and design column reactions for foundation system.
 - 2. Shop drawings shall bear the seal and signature of Licensed Mississippi Professional Engineer responsible for metal building system design.
- C. Manufacturer installation manual showing:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations along with Installation methods.
- D. Structural Design Calculations: sealed and signed by a Licensed Mississippi Professional Engineer licensed in accordance with applicable state law.
- E. Samples:
 - 1. Submit two (2) complete sets of color chips showing manufacturer's full range of available colors and patterns for each finish product.
 - 2. After color selection submit two (2) samples representing actual product, color, and patterns.
- F. Quality Control Submittals:
 - 1. IAS AC472 Certificate for each facility involved in the design and fabrication of the Metal Building System.
 - 2. Welder's Certificates: Upon request by the Engineer, submit Welder's Certificates which indicate that the welder has AWS qualifications for the intended Work within the previous 12 months.
- G. Contract Closeout:
 - 1. Preventative Maintenance Manual.
 - 2. Submit certification verifying that the metal roof system has been tested and approved by the Underwriter's Laboratory as Class 90.

1.06 QUALITY ASSURANCE

- A. Manufacturer and Fabricator Qualifications: Primary products furnished by single IAS AC472 accredited manufacturer/fabricator with minimum [5] years of experience.
- B. Erector Qualifications: Single installer with minimum [5] years of experience in installing products of same or similar type and scope.
- C. Review of shop drawings and design analysis by the Owner, Engineer and/or Architect does not relieve the manufacturer of contractual or code responsibilities with respect to this Project.

1.07 STRUCTURAL SPECIAL INSPECTION AND TESTING

- A. Contractor shall coordinate and schedule in a timely manner with the Structural Testing/Inspection Agency to perform the tests and inspections indicated on the Schedule of Special Inspection Services (See Structural Plans).

1.08 DELIVERY, STORAGE AND HANDLING

- A. Store packaged products in original, unopened packaging until ready for installation. Store and dispose of solvent-based materials and materials used with solvent-based materials in accordance with requirements of the authority having jurisdiction.
- B. Protect steel products from weather as specified by manufacturer instructions. Do not store materials directly on the ground.
- C. Protect materials and finish during storage, handling, and installation to prevent damage.

1.09 PROJECT CONDITIONS

- A. Do not install systems when temperature, humidity, or ventilation is outside of limits recommended by manufacturer.

1.10 WARRANTIES

- A. Building System Warranty
 - 1. Furnish manufacturer's standard warranty for the metal building system, excluding paint.
 - 2. The manufacturer shall warrant the metal building system against failure due to defective material or workmanship for a period of one (1) year from date of shipment.
- B. Contractor shall guarantee the roof system and the wall systems shall not leak for a period of three (3) years from date of Substantial Completion.

C. Roof and Wall Paint Finish Warranty

1. Paint Systems

- a. Furnish manufacturer's standard warranty for the metal panel paint system against chipping, peeling, blistering, fading in excess of 5 NBS Hunter units as set forth in ASTM D-2244, and chalking in excess of 8 units as set forth in ASTM D-4214.
- b. The warranty shall be for a period of 30 years from the date of shipment for PVDF paint systems.
- c. The warranty shall be for a period of 25 years from the date of shipment for silicone-polyester paint systems.

2. Galvalume® systems

- a. Furnish manufacturer's standard warranty for the Galvalume® panels against rupture, structural failure, or perforation due to normal atmospheric conditions.
- b. The warranty shall be for a period of 20 years from the date of shipment for the Galvalume® system.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design of Metal Building System: Ceco Building Systems (Pre-Engineered Metal Building).
- B. Acceptable Manufacturers:
 1. American Building Company, Inc.
 2. Butler Manufacturing Company.
 3. Kirby Building Systems.
 4. Pinnacle Structures Inc.
 5. Nucor Building Systems.
- C. Substitutions: As approved by the Engineer.

2.02 MATERIALS

A. Primary Framing Steel:

1. Hot-rolled shapes: ASTM A 36 or ASTM A 992, minimum yield of 36 ksi or 50 ksi.

2. Built-up sections:
 - a. Webs:
 - 1) ASTM A 1011 or ASTM A1018, SS or HSLAS, Grade 55 for webs 3/16 inch thick and thinner.
 - 2) ASTM A 572 Grade 50 or ASTM A572 Grade 55 or ASTM A 529 Grade 55 for webs thicker than 3/16 inch.
 - b. Flanges: ASTM A 529 Grade 55 or ASTM A 572 Grade 50 or 55.
3. Round tube: ASTM A 500, Grade B or C with minimum yield strength of 42 ksi.
4. Square and rectangular tube: ASTM A 500, Grade B or C, minimum yield strength of 42 ksi.
5. Cold-formed C sections: ASTM A 1011, Grade 55, or ASTM A 653, Grade 55.
6. X-bracing: ASTM A 529 or A 572 for rod bracing 36 ksi or 50 ksi, ASTM A 36 for angle bracing or ASTM A 475 for cable bracing.

B. Secondary Framing Steel:

1. Purlins, girts, and eave struts: ASTM A 1011 Grade 55, or ASTM A 653, Grade 55.
2. Thickness: Gauge to be determined by design to meet specified loading condition.

C. Panels:

1. Roll-formed Galvalume®, pre-painted Galvalume® or Galvanized G90 Exterior-Side and G60 Interior-Side.
2. Standing Seam Panels must have 50 percent minimum aluminum-zinc alloy coating and conform to ASTM A 792 or ASTM A-653 with minimum yield of 50 ksi.
3. Through-fastened panels must have 50 percent minimum aluminum-zinc alloy coating and conform to ASTM A 792 or ASTM A-653 with minimum yield of 50 ksi.
4. Panel Finish:
 - a. SP Finish: Modified Siliconized Polyester paint system with a 25-year finish warranty.
 - b. PVDF Finish: 70% PVDF paint system with a 30-year warranty.
5. Panel Fasteners:
 - a. For Galvalume® and Painted finished roof panels: Long Life Cast Zinc head.
 - b. Through-fastened panels: Self-drilling with sealing washer.
 - c. Color of exposed fastener heads to match the wall and roof panel finish.
 - d. Concealed Fasteners: Self-drilling type, of size required.

- e. Spacing of fasteners shall be as required to meet the System Requirements.
- f.

6. Roof Clips:

- a. All clips must have a factory-applied mastic and designed so that movement between the panel and the clip does not occur.
- b. Low or high fixed clips: Use where moderate thermal expansion and contraction in roof panel is expected.
- c. Low or high sliding clips: Provide 2 to 4 inches of travel for panel thermal expansion and contraction.

7. Sealants and closures:

- a. Side-laps: Factory applied, non-skimming Butyl mastic.
- b. End-laps, eave, ridge assembly, gable flashings: Field-applied 100% solids butyl-based elastomeric tape sealant furnished in pre-cut lengths.
- c. Outside Closures: Closed-cell foam or metal. Seek prior approval from Engineer for plastic.
- d. Inside Closures: Closed-cell foam. Seek prior approval from Engineer for plastic or metal.

8. Flashing and Trim: Match material, finish and color of adjacent components, unless specified otherwise on Drawings. Provide trim at rakes, including peak and corner assemblies, high and low eaves, exterior and interior corners, base of wall panels, framed openings including wrapping head and jamb conditions of overhead doors, parapet walls, façade wall, and as required to provide weather tightness and a finished appearance. Refer also to the Drawings.

2.03 PRIMARY FRAMING

A. Rigid Frame Design:

- 1. Fabricated as welded built-up "I" sections or hot-rolled section.
- 2. Frame Type: Tapered Column.
- 3. Refer to the Drawings for specific details.

- B. Rigid Frame Columns:
 - 1. Tapered, unless noted otherwise.
 - 2. Maximum width from EL. 0'-0" to 12'-0" shall be 2'-0" from outside-to-outside of flange.
- C. Sidewall Column Profile: As indicated on drawings.
- D. Frame Span: As indicated on drawings.
- E. Modular Frame Interior Column Profile: N/A.
- F. Bracing: As indicated on drawings.
- G. Finish : Red-Oxide or Gray Primer.

2.04 SECONDARY FRAMING

- A. Roof Zee Purlins:
 - 1. Horizontal structural members which support roof coverings.
 - 2. Depth: As required by design, 8, 10, or 12 inches unless indicated otherwise on the Drawings.
 - 3. Thickness: As required by design, 16 gauge minimum.
- B. Long Bay Purlins:
 - 1. Horizontal structural members that support roof systems, with virtual square shaped top and bottom chords and web members.
 - 2. Open Web Purlins for Long Bay applications.
- C. Wall Zee Girts:
 - 1. Horizontal structural members that support vertical panels.
 - 2. Depth: As required by design, 8, 10, or 12 inches unless indicated otherwise on the Drawings..
 - 3. Gauge: As required by design, 16 gauge minimum.
- D. Spandrel Beams: ASTM A 36/A 36M or ASTM A 992/A 992M wide flange shapes, minimum yield 50 ksi for support of wall systems as required by design.
- E. Finish: All Secondary Framing shall be Red Oxide primer, Gray primer or Pre-Coated Galvanized finish.

2.05 BOLTS

- A. Rigid Frame Connections: Provide High Strength Bolts, Nuts and Washers:
 - 1. Bolts: ASTM F 3125 Grade A325 Heavy Hex Structural Type I.
 - 2. Washers: ASTM F436 Type 1.
 - 3. Nuts: ASTM A 563 Grade C Heavy Hex. Nuts shall be wax coated by emulsion such that the torque required to complete a Rotational Capacity (RC) test shall be reduced by 40% from the un-waxed state.
 - 4. Coating: Hot-dipped Galvanized.
- B. Other Connections: Provide High Strength or Machine Bolts as required by manufacturer design:
 - 1. High Strength Bolts and Nuts:
 - a. Bolts: ASTM F 3125 Grade A325 Heavy Hex Structural Type I.
 - b. Nuts: ASTM A 563 Grade C Heavy Hex.
 - c. Coating: ASTM F 1941 Electrodeposited Yellow Zinc.
 - 2. Machine Bolts:
 - a. Bolts: ASTM A 307 Grade Carbon Steel.
 - b. Nuts: ASTM A 563 Grade A Hex Nut.
 - c. Coating: ASTM F 1941 Electrodeposited Clear Zinc.

2.06 ROOF SYSTEMS

- A. Assembly Performance Requirements: Provide roof products and assemblies meeting the following requirements:
 - 1. Class 90 rated and listed in accordance with UL-580 for Wind Uplift.
- B. PBR Roof Panel: A through-fastened roof with 1 1/4" ribs at 12 inches on center. The area between the ribs is reinforced to minimize oil-canning.
 - 1. Gauge: 26 (Std.) or as required to meet Wind Loads.

2.07 WALL PANEL SYSTEMS

A. Wall Panels:

1. R- Panel Wall Panel: A through-fastened sidewall panel with 1 1/4 inch ribs at 12 inches on center. The area between the ribs is to be reinforced to minimize oil-canning.
2. Gauge: 26 (Std.) or as required to meet the Wind Loads.
3. Dimensions: 36 inches wide by 1 1/4 inch high.
4. Finish/Color: As Specified in 2.09 PANEL FINISH.

2.08 ACCESSORIES

A. Canopies: Overhanging or projecting roof structures off the sidewall or endwall with the extreme end usually unsupported. For aesthetic application or to cover entrance or walkway.

B. Roof Line Trim:

1. Basic: Sculptured Trim Type: Low-Eave Gutter (on slope or horizontal) /Sculptured Rake Trim.

C. Gutter and Downspout System:

1. Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch (26 gage) nominal uncoated steel thickness, with coil coating. Match profile of gable trim, complete with end pieces, outlet tubes, and other special pieces are required.
2. Rainfall Intensity: System shall be designed for a 5-minute duration in a 10-year period (11.1 inches per hour).
3. All new gutters and downspouts shall be oversized, no less than 4"x5" downspouts.
4. Finish/Color: to match adjacent wall panel, unless noted otherwise.

D. Purlin Extensions: Overhang or projecting roof structure at the end of a building.

E. Personnel Doors and Frames:

1. Swinging Personnel Doors and Frames; Metal building system manufacturer's standard doors and frames; prepared and reinforced at strike and at hinges to receive factory and field-applied hardware according to BHMA A156 Series.

- a. Steel Doors: 1 $\frac{3}{4}$ " inches thick; fabricated from metallic-coated steel face sheets, 0.036-inch nominal uncoated steel thickness, inverted metallic-coated steel channels welded to face sheets at top and bottom of door.
 - 1) Design: Flush Panel.
 - 2) Core: Kraft honeycomb with U-factor of at least 0.47 Btu/sq. ft. x h x deg F.
 - 3) Glazing Frames: Steel frames to receive field-installed glass.
- b. Steel Frames: Fabricate 2-inch wide face frames from zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.060-inch nominal uncoated steel thickness.
 - 1) Knocked down for field assembly.
- c. Fabricate concealed stiffeners, reinforcement, edge channels, and moldings from either cold- or hot-rolled steel sheet.
- d. Hardware:
 - 1) Provide hardware for each door leaf, as follows:
 - a. Hinges: BHWA A156.1. Three plain-bearing, standard weight, full-mortise, stainless-steel or bronze, template-type hinges, 4 1/2 by 4 1/2 inches, with non-removable pin.
 - b. Lockset: BHMA A156.2. Mortise, with lever handle type.
 - c. Exit Device: BHMA A156.3. Touch- or push type.
 - d. Threshold: BHMA A156.21. Extruded Aluminum.
 - e. Silencers: Pneumatic rubber, three silencers on strike jambs of single door frames and two silencers on heads of double door frames.
 - f. Closer: BHMA A156.4. Surface-applied, standard-duty hydraulic type.
 - g. Weather Stripping: Vinyl applied to head and jambs, with vinyl sweep at sill.
- e. Anchors and Accessories: Manufacturer's standard units, galvanized according to ASTM A123/A123M.

- f. Fabrication: Fabricate doors and frames to be rigid; neat in appearance; and free from defects, warp, or buckle. Provide continuous welds on exposed joints; grind, dress, and make welds smooth, flush, and invisible.
- 2. Materials:
 - a. Cold-Rolled Steel Sheet: ASTM A1008/A1008M, Commercial Steel (CS), Type B, suitable for exposed applications.
- 3. Finishes for Personnel Doors and Frames:
 - a. Prime Finish: Factory-apply manufacturer's standard primer immediately after cleaning and pretreating.
 - 1) Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with SDI A250.10 acceptance criteria; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.
 - b. Factory-Applied Paint Finish: Manufacturer's standard, complying with SDI A250.3 for performance and acceptance criteria.
 - 1) Color and Gloss: As selected by the Owner from the manufacturer's full range.

F. Doors and Frames, Other Than Personnel:

1. Doors and Frames shall be designed by their manufacturer to meet the wind load provisions as specified by the Plans and the Building Code. Metal building door support members shall be designed in a manner consistent with the load transfer mechanism employed by the door. Roll-up sheet doors and slat doors can impart in-plane tension (catenary) loading on support jambs that must be considered in their design.
2. Chain hoist operated rolling service door(s). Sized per the Plans.
3. Door Frame: Building system's manufacturer's standard.
4. Roll-up Door: As indicated on the Plans.

G. Windows:

1. Not applicable.

H. Soffit Panels:

1. R-Panel Wall Panel: A through-fastened sidewall panel with 1 ¼" ribs at 12 inches on center. The area between the ribs is reinforced to minimize oil-canning.

- a. Gauge: 26 (std.) or as required by the Wind Loads.

- b. Finish: As specified in Article 2.09 PANEL FINSHES/

I. Facades: Decorative structural and panel system projecting from the face of a wall panel.

J. Parapet Walls: Wall panels below the roof line that extend above the roof line to a given elevation. Parapet walls include 14 gauge pre-galvanized parapet gutter (gutter liner and drainage members by others) when located on a sidewall (except) at the high side of a Single-Slope or Lean-to-building.

K. Partitions: Interior or exterior walls what are inside the building footprint to section off parts of the interior space of a building.

L. Valley Gutter: gutter used to carry off water from attached buildings or multi-gabled buildings. Standard valley gutter is 14 gauge pre-galvanized 10 feet sections, field welded in place (gutter liner and drainage members by others).

M. Roof Curbs: Welded units fabricated for Metal Roof application. Minimum 18 gauge Galvalume coated steel, with welds cleaned and treated with protective coating comparable with the Galvalume substrate. Minimum curb height shall be 8".

1. Top of curb to be level with ground, with 1 ½" top flange.
2. Curb walls insulated with 1 ½" – 3 lb. density fiberglass insulation.
3. Welded integral cricket on upslope side of curb to divert water.
4. Metal or plastic rib covers supplied loose for flexibility when installing curb.
5. Standard sub-frame shall be minimum 16 gauge steel.
6. All fasteners and sealants required for installation shall be furnished by the Roof Curb manufacturer.

N. Roof Vents: Accessories used on the roof to allow air to pass through.

1. Gravity Ridge Vents: Can be used as single unit or continuous.

- a. Size: 9 inch by 10 foot with Damper & Lockerpull.

b. Size: 12 inch by 10 foot with Damper & Lockerpull.

O. Pipe Flashings: Pipe flashing shall be of a one-piece construction and fabricated from an EPDM membrane and shall have an aluminum base that can be field conformed to any panel configuration. Pipe flashings shall be flexible for mounting on any roof slope. Service temperature ranges shall be from -30F to +250F. Three standard flashing sizes shall accommodate pipe sizes from $\frac{1}{4}$ " diameter to 13" diameter.

1. Size $\frac{1}{4}$ " to 4" Pipe.
2. Size 4" to 7" Pipe.
3. Size 7" to 13" Pipe"

2.09 PANEL FINISHES

A. Roof Panel:

1. Galvalume® (GM)

B. Wall Panel:

1. Standard Panel Paint System (Siliconized Polyester Resin, 25-year Finish Warranty):
 - a. Color: Contractor shall provide color samples for Owners' Selection.

C. Liner Panel:

1. Not Applicable.

D. Soffit Panel:

1. Standard Panel Paint System (Siliconized Polyester Resin, 25-year Finish Warranty):
 - a. Color: Per the Owner's selection.

2.10 THERMAL INSULATION

A. Faced Metal Building Insulation: ASTM C991, Type II, glass-fiber-blanket insulation; 0.5lb/cu. Ft. density, 3 inches thick and a minimum R value of 10, vapor-tight edge tabs; with a flame-spread index of 25 or less.

B. Retainer Strips: For securing insulation between supports, 0.025-inch nominal thickness, formed, metallic-coated steel or PVC retainer clips colored to match insulation facing.

C. Vapor-Retarder Facing: ASTM C1136, with permeance not greater than 0.02 perm when tested according to ASTM E96/E96M, Desiccant Method.

1. Composition: White polypropylene or vinyl film facing, fiberglass scrim reinforcement, and metallized-polyester film backing.
2. Composition: White polypropylene film facing and fiberglass-polyester-blend fabric backing.

D. Vapor-Retarder Tape: Pressure-sensitive tape of type recommended by vapor-retarder manufacturer for sealing joints and penetrations in vapor retarder.

2.11 FABRICATION

A. General:

1. Shop-fabricate framing members for field bolted assembly. Comply with MBMA's "Metal Building Systems Manual" for fabrication and erection tolerances.
2. Surfaces of bolted connections: Smooth and free from burrs and distortions. Shop connections to conform to manufacturer's standard design practices.
3. Mark framing members with identifying mark.
4. Welding to conform to AWS D1.1 and AWS D1.3 as applicable.

B. Primary Framing:

1. Plates, stiffeners, and related members: Factory welded base plates, splice plates, cap plates, and stiffeners into place on structural members.
2. Bolt holes and related machining: Shop fabricate base plates, splices and flanges to include bolt connection holes. Shop-fabricate webs to include bracing holes.
3. Welding inspection: Per IAS AC472 Part A.

C. Zee Purlins:

1. Fabricate purlins from cold-formed Z-shaped sections with stiffened flanges.
2. Size flange stiffeners to comply with requirements of AISI S100.
3. Purlins pre-punched at factory to provide for field bolting to rigid frame clips.

D. Eave Struts:

1. Fabricate eave struts from cold-formed unsymmetrical C-shaped sections with stiffened flanges.
2. Size flange stiffeners to comply with requirements of AISI S100.
3. No welded splices permitted.
4. Eave Struts pre-punched at factory to provide for field bolting to rigid frame clips.

E. Girts: Simple or continuous span as required by design.

F. Bracing:

1. Diagonal Bracing:
 - a. Diagonal bracing in roof and sidewalls may be used to resist longitudinal loads in structure when panel diaphragm cannot be used.
 - b. Furnish to length and equipped with hillside washers and nuts at each end.
 - c. Bracing may consist of rods threaded at each end or galvanized cable with suitable threaded end anchors.
 - d. If load requirements dictate, bracing may be of structural angle or pipe, bolted in place.
2. Special Bracing:
 - a. When diagonal bracing is not permitted in sidewall use rigid frame type portal or fixed base column.
3. Flange Braces: Brace compression flange of primary framing laterally with angles connecting to purlin or girt webs so that flange compressive stress is within allowable limits for any combination of loading.
4. Bridging:
 - a. Laterally brace top chord of long bay purlins with horizontal bridging if roof system being used will not supply adequate lateral support to top chord.

G. Standing Seam Panels:

1. Provide factory fabricated and finished metal panels and accessories meeting performance requirements, indicated profiles and structural requirements.

2. Fabricate metal joints configured to accept applied sealant providing weathertight seal and preventing metal to metal contact and minimizing noise resulting from thermal movement.
3. Fabricate panels in continuous lengths for full length of detailed runs, except where otherwise indicated on drawings.
4. Sheet Metal Flashing and Trim: Fabricate or install flashing and trim to comply with manufacturer's written instructions and construction drawings.

H. End Laps:

1. Fabricate with 16 gauge backup plates and eight end lap joint fasteners installed in six pre-punched holes in flat and in dimples in trapezoidal legs.
2. Apply mastic between panels and secure with self-drilling fasteners through panels and backup plate.
3. Through roof fasteners may be used only at end laps and eaves.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Clean surfaces prior to installation. Oxidation and/or staining between material surfaces and connections after installation shall not be acceptable and surface of the material rejected shall be repaired at the Contractor's expense.
- B. Provide temporary shores, guys, braces, and other supports during erection to keep structural framing secure, plumb, and in alignment against temporary construction loads equal in intensity to design loads. Remove temporary supports when permanent structural framing connections and bracing are in place, unless otherwise indicated.
- C. Prepare surfaces using methods recommended by manufacturer for best result for substrate.

3.02 INSTALLATION

- A. The erection of the building system shall be performed by a qualified erector, in accordance with the approved erection drawings, erection guides and/or other documents furnished by the manufacturer, using proper tools, equipment and safety practices.
- B. Erection practices shall conform to "Common Industry Practices", Section 6, MBMA (LR) Building Systems Manual.

- C. Contractor shall make necessary provisions and take precautions to not overload the structure with construction loads.
- D. There shall be no field modifications to primary structural members except as authorized and specified by the manufacturer.
- E. Any panel damaged during erection, handling, etc., shall be culled out and replaced with a new panel. Panels with minor surface scratches or abrasions that do not expose the metal substrate may be touched up, with prior approval from the Engineer, using the coating manufacturer's field touch up system. Scratches, gouges, or abrasions that expose the metal substrate shall be replaced with new panels and no additional cost to the Owner.
- F. Prior to request for Substantial Completion, the Contractor shall:
 - 1. Clean all building components of soil and other foreign debris.
 - 2. Clean, prepare, and touch up the coating at areas damaged and areas rusting prior to Project completion.
- G. After installation of the building and before final acceptance by the Owner, the Contractor shall counter-sign and deliver to the Owner the written guarantee stating that the installed building will remain free of defects for a period of one (1) year and free of leaks for a period of three (3) years.

END OF SECTION