

# PROJECT MANUAL



## SOUTHPORT ELEMENTARY SCHOOL WINDOW & DOOR REPLACEMENT

701 W. 9<sup>th</sup> Street, Southport, North Carolina 28461

CONSTRUCTION DOCUMENTS  
OCTOBER 24, 2022



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LS3P Commission No. 7201-218690



**PROJECT MANUAL**  
FOR  
**SOUTHPORT ELEMENTARY SCHOOL**  
**WINDOW & DOOR REPLACEMENT**  
Brunswick County Schools



**Architect**

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## NOTICE TO BIDDERS

PROJECT: Southport Elementary School Window & Door Replacement

LOCATION: 701 W. 9th Street, Southport, North Carolina 28461

OWNER: Brunswick County Schools, Bolivia, North Carolina

The Owner will receive sealed lump sum bids until the bid time and date at the location given below for Southport Elementary School Window & Door Replacement for a General Contract (All trades).

**BID SUBMITTAL AND BID SECURITY:** The Owner will consider bids pursuant to North Carolina GS 143 prepared in compliance with the Instructions to Bidders issued by the Owner, and delivered as follows:

**BID DATE AND TIME:** **Thursday November 10, 2022 at 2:00 p.m.**, local time.

LOCATION: Brunswick County Schools, 199 Sessions Drive NE, Bolivia, North Carolina, Bid Box

Bids will be thereafter publicly opened and read aloud. Bid security shall be submitted with each bid in the amount of 5 percent of the bid amount. No bids may be withdrawn for a period of 45 days following opening of bids. The Owner reserves the right to reject any and all bids and to waive minor informalities and irregularities.

**PRE-BID CONFERENCE:** A pre-bid conference for all bidders will be held at Southport Elementary School, 701 W. 9th Street, Southport, North Carolina 28461 on **Wednesday October 28, 2022 at 10:00 a.m.**, local time. Prospective prime bidders are encouraged to attend. Subcontractors and suppliers are invited to attend.

**BID DOCUMENTS:** Complete plans, specifications, and contract documents can be obtained electronically on October 25, 2022. Go to <http://infoexchange.ls3p.com> and login using your e-mail address and "anonymous" as the password. Click on the [Southport ES Bid Documents](#) download link.

Door hardware will be addressed in Addendum 01 on Wednesday November 2.

Plan Rooms:

Dodge Data & Analytics – [www.construction.com](http://www.construction.com),

Carolinas Plan Room – [www.carolinasplanroom.com](http://www.carolinasplanroom.com)

iSqFt + bidclerk – [www.iSqFt.com](http://www.iSqFt.com)

Bidders may also obtain a complete set of bidding documents beginning on October 25, 2022 from: McGee Cadd Reprographics, 2527 S. 17<sup>th</sup> St., Wilmington, NC 28401, (910) 392-5500, e-mail: [mcgee01@mcgee-cadd.com](mailto:mcgee01@mcgee-cadd.com), upon the non-refundable payment of services charges.

### TIME OF COMPLETION AND LIQUIDATED DAMAGES

Bidders shall begin work upon receipt of 'Notice to Proceed' and to complete the work within the Contract Time indicated in the Contract Documents. Work is subject to Liquidated Damages indicated in the Contract Documents.

### BIDDER'S QUALIFICATIONS

Bidders must be properly licensed under the state laws governing their respective trades appropriate to the size of the Project. A Performance Bond, separate Labor and Material Payment Bond, and Insurance in a form acceptable to the Owner will be required of the successful Bidder.

Bidders and their subcontractors shall meet qualification requirements indicated in the Contract Documents.

Submission of a bid shall serve as evidence that the Bidder has confirmed that the Bidder is properly qualified to perform the work and is capable of obtaining the required bonds and insurance. Bidders shall, if requested, submit evidence in affidavit form of applicable experience, licensure, approvals, and certifications, adequate financial resources, work in hand capacity, adequate organization, and acceptable past performance. Submittal will be in the form of AIA Document A305 *Contractor's Qualification Statement*. Bidder's qualification information shall be considered privileged and confidential.

END OF NOTICE TO BIDDERS

NOTICE TO BIDDERS

NTB - 1



# DRAFT AIA® Document A701™ – 1997

## Instructions to Bidders

### for the following PROJECT:

(Name and location or address)

Southport Elementary School - Window & Door Replacement  
701 W. 9th Street  
Supply, NC

### THE OWNER:

(Name, legal status and address)

Brunswick County Schools  
35 Referendum Drive NE  
Bolivia, NC 28422

### THE ARCHITECT:

(Name, legal status and address)

LS3P Associates Ltd.  
101 N. Third Street, Suite 500  
Wilmington, NC 28401

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#### ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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## ARTICLE 1 DEFINITIONS

§ 1.1 Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Advertisement or Invitation to Bid, Instructions to Bidders, Supplementary Instructions to Bidders, the bid form, and other sample bidding and contract forms. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, AIA Document A201, or in other Contract Documents are applicable to the Bidding Documents.

§ 1.3 Addenda are written or graphic instruments issued by the Architect prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications or corrections.

§ 1.4 A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

§ 1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.

§ 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

§ 1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment or services or a portion of the Work as described in the Bidding Documents.

§ 1.8 A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

§ 1.9 A Sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment or labor for a portion of the Work.

## ARTICLE 2 BIDDER'S REPRESENTATIONS

§ 2.1 The Bidder by making a Bid represents that:

§ 2.1.1 The Bidder has read and understands the Bidding Documents or Contract Documents, to the extent that such documentation relates to the Work for which the Bid is submitted, and for other portions of the Project, if any, being bid concurrently or presently under construction.

§ 2.1.2 The Bid is made in compliance with the Bidding Documents.

§ 2.1.3 The Bidder has visited the site, become familiar with local conditions under which the Work is to be performed and has correlated the Bidder's personal observations with the requirements of the proposed Contract Documents.

§ 2.1.4 The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.

## ARTICLE 3 BIDDING DOCUMENTS

### § 3.1 COPIES

§ 3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement or Invitation to Bid in the number and for the deposit sum, if any, stated therein. The deposit will be refunded to Bidders who submit a bona fide Bid and return the Bidding Documents in good condition within ten days after receipt of Bids. The cost of replacement of missing or damaged documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the Bidding Documents and the Bidder's deposit will be refunded.

§ 3.1.2 Bidding Documents will not be issued directly to Sub-bidders unless specifically offered in the Advertisement or Invitation to Bid, or in supplementary instructions to bidders.

§ 3.1.3 Bidders shall use complete sets of Bidding Documents in preparing Bids; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

§ 3.1.4 The Owner and Architect may make copies of the Bidding Documents available on the above terms for the purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

### § 3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

§ 3.2.1 The Bidder shall carefully study and compare the Bidding Documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the Work for which the Bid is submitted, shall examine the site and local conditions, and shall at once report to the Architect errors, inconsistencies or ambiguities discovered.

§ 3.2.2 Bidders and Sub-bidders requiring clarification or interpretation of the Bidding Documents shall make a written request which shall reach the Architect at least seven days prior to the date for receipt of Bids.

§ 3.2.3 Interpretations, corrections and changes of the Bidding Documents will be made by Addendum. Interpretations, corrections and changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon them.

### § 3.3 SUBSTITUTIONS

§ 3.3.1 The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

§ 3.3.2 No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the Architect at least ten days prior to the date for receipt of Bids. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for an evaluation. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the work of other contracts that incorporation of the proposed substitution would require, shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

§ 3.3.3 If the Architect approves a proposed substitution prior to receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.

§ 3.3.4 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

### § 3.4 ADDENDA

§ 3.4.1 Addenda will be transmitted to all who are known by the issuing office to have received a complete set of Bidding Documents.

§ 3.4.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

§ 3.4.3 Addenda will be issued no later than four days prior to the date for receipt of Bids except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

§ 3.4.4 Each Bidder shall ascertain prior to submitting a Bid that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

## ARTICLE 4 BIDDING PROCEDURES

### § 4.1 PREPARATION OF BIDS

§ 4.1.1 Bids shall be submitted on the forms included with the Bidding Documents.

§ 4.1.2 All blanks on the bid form shall be legibly executed in a non-erasable medium.

§ 4.1.3 Sums shall be expressed in both words and figures. In case of discrepancy, the amount written in words shall govern.

§ 4.1.4 Interlineations, alterations and erasures must be initialed by the signer of the Bid.

§ 4.1.5 All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change."

§ 4.1.6 Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall make no additional stipulations on the bid form nor qualify the Bid in any other manner.

§ 4.1.7 Each copy of the Bid shall state the legal name of the Bidder and the nature of legal form of the Bidder. The Bidder shall provide evidence of legal authority to perform within the jurisdiction of the Work. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further give the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

### § 4.2 BID SECURITY

§ 4.2.1 Each Bid shall be accompanied by a bid security in the form and amount required if so stipulated in the Instructions to Bidders. The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and will, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty. The amount of the bid security shall not be forfeited to the Owner in the event the Owner fails to comply with Section 6.2.

§ 4.2.2 If a surety bond is required, it shall be written on AIA Document A310, Bid Bond, unless otherwise provided in the Bidding Documents, and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.

§ 4.2.3 The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until either (a) the Contract has been executed and bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bids may be withdrawn or (c) all Bids have been rejected.

### § 4.3 SUBMISSION OF BIDS

§ 4.3.1 All copies of the Bid, the bid security, if any, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

§ 4.3.2 Bids shall be deposited at the designated location prior to the time and date for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

§ 4.3.3 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

§ 4.3.4 Oral, telephonic, telegraphic, facsimile or other electronically transmitted bids will not be considered.

### § 4.4 MODIFICATION OR WITHDRAWAL OF BID

§ 4.4.1 A Bid may not be modified, withdrawn or canceled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting a Bid.

**§ 4.4.2** Prior to the time and date designated for receipt of Bids, a Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder. Written confirmation over the signature of the Bidder shall be received, and date- and time-stamped by the receiving party on or before the date and time set for receipt of Bids. A change shall be so worded as not to reveal the amount of the original Bid.

**§ 4.4.3** Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders.

**§ 4.4.4** Bid security, if required, shall be in an amount sufficient for the Bid as resubmitted.

## **ARTICLE 5 CONSIDERATION OF BIDS**

### **§ 5.1 OPENING OF BIDS**

At the discretion of the Owner, if stipulated in the Advertisement or Invitation to Bid, the properly identified Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids may be made available to Bidders.

### **§ 5.2 REJECTION OF BIDS**

The Owner shall have the right to reject any or all Bids. A Bid not accompanied by a required bid security or by other data required by the Bidding Documents, or a Bid which is in any way incomplete or irregular is subject to rejection.

### **§ 5.3 ACCEPTANCE OF BID (AWARD)**

**§ 5.3.1** It is the intent of the Owner to award a Contract to the lowest qualified Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's own best interests.

**§ 5.3.2** The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.

## **ARTICLE 6 POST-BID INFORMATION**

### **§ 6.1 CONTRACTOR'S QUALIFICATION STATEMENT**

Bidders to whom award of a Contract is under consideration shall submit to the Architect, upon request, a properly executed AIA Document A305, Contractor's Qualification Statement, unless such a Statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.

### **§ 6.2 OWNER'S FINANCIAL CAPABILITY**

The Owner shall, at the request of the Bidder to whom award of a Contract is under consideration and no later than seven days prior to the expiration of the time for withdrawal of Bids, furnish to the Bidder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. Unless such reasonable evidence is furnished, the Bidder will not be required to execute the Agreement between the Owner and Contractor.

### **§ 6.3 SUBMITTALS**

**§ 6.3.1** The Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, after notification of selection for the award of a Contract, furnish to the Owner through the Architect in writing:

- .1 a designation of the Work to be performed with the Bidder's own forces;
- .2 names of the manufacturers, products, and the suppliers of principal items or systems of materials and equipment proposed for the Work; and
- .3 names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

**§ 6.3.2** The Bidder will be required to establish to the satisfaction of the Architect and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

**§ 6.3.3** Prior to the execution of the Contract, the Architect will notify the Bidder in writing if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, (1) withdraw the Bid or (2) submit an acceptable substitute person or entity with an adjustment in the Base Bid or Alternate Bid to cover the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

**§ 6.3.4** Persons and entities proposed by the Bidder and to whom the Owner and Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Architect.

## **ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND**

### **§ 7.1 BOND REQUIREMENTS**

**§ 7.1.1** If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Bonds may be secured through the Bidder's usual sources.

**§ 7.1.2** If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid. If the furnishing of such bonds is required after receipt of bids and before execution of the Contract, the cost of such bonds shall be added to the Bid in determining the Contract Sum.

**§ 7.1.3** If the Owner requires that bonds be secured from other than the Bidder's usual sources, changes in cost will be adjusted as provided in the Contract Documents.

### **§ 7.2 TIME OF DELIVERY AND FORM OF BONDS**

**§ 7.2.1** The Bidder shall deliver the required bonds to the Owner not later than three days following the date of execution of the Contract. If the Work is to be commenced prior thereto in response to a letter of intent, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished and delivered in accordance with this Section 7.2.1.

**§ 7.2.2** Unless otherwise provided, the bonds shall be written on AIA Document A312, Performance Bond and Payment Bond. Both bonds shall be written in the amount of the Contract Sum.

**§ 7.2.3** The bonds shall be dated on or after the date of the Contract.

**§ 7.2.4** The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

## **ARTICLE 8 FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR**

Unless otherwise required in the Bidding Documents, the Agreement for the Work will be written on AIA Document A101, Standard Form of Agreement Between Owner and Contractor Where the Basis of Payment Is a Stipulated Sum.

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**SUPPLEMENTARY INSTRUCTIONS TO BIDDERS****SUPPLEMENTARY INSTRUCTIONS TO BIDDERS, GENERAL**

The following supplements modify AIA Document A701 - 1997 Instructions to Bidders. Where a portion of the Instructions to Bidders is modified or deleted by these Supplementary Instructions to Bidders, unaltered portions of Instructions to Bidders shall remain in effect.

**ARTICLE 2 BIDDER'S REPRESENTATIONS**

*Add §2.1.3.1:*

**§2.1.3.1** The Bidder has investigated all required fees, permits, and regulatory requirements of authorities having jurisdiction and has properly included the cost of such fees, permits, and requirements not otherwise specifically indicated as provided by the Owner, in the submitted bid.

*Add §2.1.5:*

**§2.1.5** The Bidder is properly licensed Contractor in accordance with the General Statutes of the State of North Carolina and meets qualifications indicated in the Bidding Documents.

**ARTICLE 3 BIDDING DOCUMENTS****§3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS**

*Add §3.2.2.1:*

**§3.2.2.1** Submit requests for interpretation of the bidding documents in writing using "Bidder's Request For Interpretation".

**§3.3 SUBSTITUTIONS**

*Add §3.3.2.1:*

**§3.3.2.1** Submit substitution requests in writing using "Bidder's Request For Substitution," properly completed and signed. The Architect will review requests for substitution of comparable products when submitted by Prime Bidders. Submit requests to the Architect no later than 10 days prior to the date established for receipt of bids. Attach a copy of the respective specification section with point-by-point compliance or variance, and accompanied by sufficient independently certified test data, code and third party approvals, product samples, and additional information needed to support the request. Architect's acceptance of products on previous projects does not guarantee acceptance on this Project. Undocumented requests will not be reviewed. Approval of requests is by Addendum only.

**§3.4 ADDENDA**

*Delete §3.4.3 and replace with the following:*

**§3.4.3** Addenda may be issued at any time prior to the receipt of bids.

*Add §3.4.4.1:*

**§3.4.4.1** The Owner may elect to waive the requirement for acknowledgement of received Addenda in §3.4.4 if:

- .1** Information received as part of the bid indicates that the bid as submitted reflects modifications to the Bidding Documents included in an unacknowledged Addendum, or
- .2** Modifications to the Bidding Documents in an unacknowledged Addendum do not, in the opinion of the Owner, affect the Contract Sum or Contract Time.

**ARTICLE 4 BIDDING PROCEDURES****§ 4.1 PREPARATION OF BIDS**

*Add §4.1.8:*

**§ 4.1.8** The Bid shall include Unit Prices when called for by the Bidding Documents. The Owner may elect to consider Unit Prices in the determination of award. Unit Prices accepted by the Owner will be incorporated in the Contract.

*Add §4.1.9:*

**§4.1.9** The Owner may elect to disqualify a bid due to failure to submit a bid in the form requested, failure to bid requested Alternates or Unit Prices, failure to complete entries in all blanks in the Bid Form, or inclusion by the Bidder of any alternates, conditions, limitations or provisions not called for.

*Add §4.1.10:*

**§4.1.10** Bids shall include sales and use taxes. Contractors shall show separately with each monthly payment application the sales and use taxes paid by them and their subcontractors in the form indicated. Reimbursement of sales and use taxes, if any, shall be applied for by the Owner for the sole benefit of the Owner.

*Add §4.1.11:*

**§4.1.11** Each Bid shall be accompanied by listing of Minority Businesses that will be utilized on the project and affidavit documenting good faith efforts to encourage and facilitate minority participation in the project.

**§4.1.11.1** A Minority person, for purposes of this Contract, is a citizen or lawful permanent resident of the United States who is Black, Hispanic, Asian-American, American Indian or female.

**§4.1.11.2** A Minority Business, for purposes of this Contract, is a business in which at least fifty-one percent (51%) is owned by one or more minority persons, or in the case of a corporation, in which at least fifty-one percent (51%) of the stock is owned by one or more minority person and of which the management and daily business operations are controlled by one or more of the minority person who own it.

**§4.3 SUBMISSION OF BIDS**

*Add §4.3.1.2:*

**§4.3.1.2** Include Bidder's State of North Carolina Contractor License Number on the face of the sealed bid envelope.

**§4.4 MODIFICATION OR WITHDRAWAL OF BIDS**

*Add the following to §4.4.2:*

**§4.4.2.1** Such modifications to or withdrawal of a Bid may only be made by persons authorized to act on behalf of the Bidder. Authorized persons are those so identified in the Bidder's corporate by-laws, specifically empowered by the Bidder's charter or similar legally binding document acceptable to the Owner, or by a power of attorney, signed and dated, describing the scope and limitations of the power of attorney. Make such documentation available to the Owner at the time of seeking modifications or withdrawal of Bid.

**§4.4.2.2** The Owner will consider modifications to a Bid written on the sealed bid envelope by authorized persons when such modifications comply with the following: the modification is indicated by a percent or stated amount to be added to or deducted from the Bid; the amount of the Bid itself is not made known by the modification; a signature of the authorized person, along with the time and date of the modification, accompanies the modification. Completion of an unsealed bid form, awaiting final figures from the Bidder, does not require power of attorney due to the evidenced authorization of the Bidder implied by the circumstance of the completion and delivery of the Bid.

*Add §4.5:*

#### **§4.5 SUBCONTRACTORS, SUPPLIERS, AND MANUFACTURERS LIST BID SUPPLEMENT**

**§4.5.1** Provide a list of major subcontractors, suppliers, and manufacturers furnishing or installing products on forms provided no later than 2 business days following Architect's request. Include those entities providing work totaling 3 percent or more of the bid amount. Do not change subcontractors, suppliers, and manufacturers from those submitted without approval of Architect.

### **ARTICLE 5 CONSIDERATION OF BIDS**

#### **§5.2 REJECTION OF BIDS**

*Add §5.2.1:*

**§5.2.1** The Owner reserves the right to reject a Bid based upon the Owner's and Architect's evaluation of qualification information submitted following opening of bids. The Owner's evaluation of the Bidder's qualifications will include: status of licensure and record of compliance with licensing requirements, record of quality of completed work, record of project completion and ability to complete, record of financial management including financial resources available to complete the Project and record of timely payment of obligations, record of project site management including compliance with requirements of authorities having jurisdiction, record of and number of current claims and disputes and the status of their resolution, and qualifications of the Bidder's proposed project staff and proposed subcontractors.

### **ARTICLE 6 POST-BID INFORMATION**

#### **§6.1 CONTRACTOR'S QUALIFICATION STATEMENT**

*Add §6.1.1:*

**§6.1.1** Submit Contractor's Qualification Statement no later than 2 business days following Architect's request.

#### **§6.3 SUBMITTALS**

*Add §6.3.1.4:*

**§6.3.1.4** Submit information requested in **§6.3.1.1**, **§6.3.1.2**, and **§6.3.1.3** no later than 2 business days following Architect's request.

### **ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND**

#### **§ 7.1 BOND REQUIREMENTS**

*Add §7.1.1.1:*

**§ 7.1.1.1** Both a Performance Bond and a Payment Bond will be required, each in an amount equal to one hundred percent of the Contract Sum.

#### **§ 7.2 TIME OF DELIVERY AND FORM OF BONDS**

*Delete the first sentence of §7.2.1 and insert the following:*

"The Bidder shall deliver the required bonds to the Owner not later than 10 days after the date of the notice to award and not later than the date of execution of the Contract, whichever occurs first. The Owner may deem the failure of the Bidder to deliver required bonds within the period of time allowed a default."

*Delete §7.2.3 and insert the following:*

**§ 7.2.3** Bonds shall be executed and be in force on the date of the execution of the Contract.

**ARTICLE 8 FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR**

*Add §8.1:*

**§8.1 EXECUTION OF THE CONTRACT**

**§8.1.1** Subsequent to the notice to award, and within 10 days after the prescribed Form of Agreement is presented to the Awardee for signature, the Awardee shall execute and deliver the Agreement to the Owner through the Architect, in such number of counterparts as the Owner may require.

**§8.1.3** Unless otherwise indicated in the Bidding Documents or the executed Agreement, the date of commencement of the Work shall be the date of the executed Agreement or the date that the Bidder is obligated to deliver the executed Agreement and required bonds to the Owner.

**§8.1.2** The Owner may deem the failure of the Awardee to execute the Contract and to supply the required bonds when the Agreement is presented for signature within the period of time allowed a default.

**§8.1.4** In the event of a default, the Owner may declare the amount of the bid security forfeited and elect to either award the Contract to the next responsible bidder or re-advertise for bids.

*Add §8.2:*

**§8.2 TIME OF COMMENCEMENT AND COMPLETION**

**§8.2.1** The Contractor shall commence Work within 10 days following execution of the Contract, or when notified in writing to proceed, and shall complete the Work within the Contract Time.

END OF SUPPLEMENTARY INSTRUCTIONS TO BIDDERS





**BIDDER'S REQUEST FOR SUBSTITUTION FORM**

*Requests for Substitution are accepted from prime bidders only. Subcontractors and suppliers must submit requests through a prime bidder. Bidders are required to submit this completed form with required attachments no later than 10 days prior to opening of bids. Comply with requirements of the Instructions to Bidders and Supplementary Instructions to Bidders.*

Project:	<u>Southport Elementary School Window &amp; Door Replacement</u>	Project No.:	<u>7201-218690</u>
To:	<u>LS3P</u>	Specification Section #:	<u></u>
	<u>Wilmington, NC</u>	Prime Bidder:	<u></u>
Attn.:	<u>Matt Bramstedt, AIA</u>	Requested by:	<u></u>
Phone:	<u>910-790-9901</u>	Phone:	<u></u>
Fax:	<u>910-790-3111</u>	Fax:	<u></u>
Email:	<u>mattbramstedt@ls3p.com</u>	Email:	<u></u>

**Specified Product/Fabrication Method**

(List name/description; model no.; manufacturer):

Required Information for <i>Specified</i> Product:	Attached:
Point by Point Comparative Product Data	<input type="checkbox"/>
Tests	<input type="checkbox"/>
Reports	<input type="checkbox"/>
Fabrication Drawings	<input type="checkbox"/>
Samples (Where Applicable)	<input type="checkbox"/>

**Proposed Product/Fabrication Method**

(List trade name/description; model no.; manufacturer) :

Required Information for <i>Proposed</i> Product:	Attached:
Point by Point Comparative Product Data	<input type="checkbox"/> (Required)
Tests	<input type="checkbox"/>
Reports	<input type="checkbox"/>
Fabrication Drawings	<input type="checkbox"/>
Samples (Where Applicable)	<input type="checkbox"/>

List of Related Changes/Modifications:

Differences between proposed substitution and specified product:

Proposed product/fabrication method  
affects other parts of the Work

No  Yes: Explain

Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product as utilized for this project, except as noted herein.
- Qualifications of manufacturer, installer, and other specified parties meet the specified qualifications.
- Same special warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source for replacement parts, as applicable, is available as that specified.
- Proposed substitution does not affect dimensions and functional clearances, except as noted herein.

**For the Bidder:**

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

Signed: \_\_\_\_\_

Firm: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

**For the Manufacturer:**

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

Signed: \_\_\_\_\_

Firm: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

END OF BIDDER'S REQUEST FOR SUBSTITUTION FORM

## BID FORM

Project Name: Southport Elementary School - Window & Door Replacement  
Project Location: 701 W. 9<sup>th</sup> Street, Southport, NC 28461

### 1.1 BID INFORMATION

- A. Date: \_\_\_\_\_
- B. Bidder: \_\_\_\_\_
- C. Bidder's Contractor License Number: \_\_\_\_\_
- D. Owner: Brunswick County Schools

### 1.2 CERTIFICATIONS AND BASE BID

- A. Base Bid, Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by LS3P and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled/indicated allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:
  - 1. \_\_\_\_\_ Dollars (\$\_\_\_\_\_).

### 1.3 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within 10 days after a written Notice of Award, if offered within 45 days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting five percent (5%) of the Base Bid amount above:
  - 1. \_\_\_\_\_ Dollars (\$\_\_\_\_\_).
- B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

### 1.4 ALLOWANCES

The undersigned Bidder acknowledges that Allowances, as specified in Section 012100 and modifying addenda, are included in their General Construction Work Base Bid.



## 1.5 HUB-M/WBE PARTICIPATION REQUIREMENTS

(Historically Underutilized Businesses - Minority/Women owned Business Enterprise)

**Provide on the bid** - Under GS 143-128.2(c) and GS 143-128.2(f) the undersigned bidder shall identify **on its bid** the minority businesses that it will use on the project **and** the total dollar value of the bid that will be performed by the minority businesses **and** list the good faith efforts (Affidavit **A**) made to solicit participation

**Note:** A contractor that performs all of the work with its own workforce may submit an Affidavit (**B**) to that effect in lieu of the affidavit (**A**) required above.

**After the bid opening** - The Owner will consider all bids and alternates and determine the lowest responsible, responsive bidder. Upon notification of being the apparent low bidder, the bidder shall then file within 72 hours of the notification of being the apparent lowest bidder, the following:

An Affidavit (**C**) that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the 10% goal established. Attach Copies of HUB Certifications for each minority business listed. This affidavit shall give rise to the presumption that the bidder has made the required good faith effort;

Or

Affidavit (**D**) of its good faith effort to meet the goal. The document must include evidence of all good faith efforts that were implemented, including any advertisements, solicitations and other specific actions demonstrating recruitment and selection of minority businesses for participation in the contract. Attach Copies of HUB Certifications for each minority business listed.

**Note:** Bidders must submit **with their bid** the *Identification of Minority Business Participation* list and *Affidavit A or Affidavit B*. Bidders must submit, after being notified of being the apparent low bidder, *Affidavit C or Affidavit D* as applicable within 72 hours. Failure to submit the required affidavits and documentation, with the bid or after being notified of being the apparent low bidder, may be grounds for rejection of the bid.

## 1.6 TIME OF COMPLETION

- A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by Architect, and shall fully complete the Work within and not exceed the time limits set forth in the Contract Document.
- B. The undersigned Bidder acknowledges that 'Liquidated Damages' provisions shall be in effect for this project as stated in the Contract Document.

## 1.7 ACKNOWLEDGEMENT OF ADDENDA

- A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:
  1. Addendum No. I, Dated \_\_\_\_\_.
  2. Addendum No. II, Dated \_\_\_\_\_.
  3. Addendum No. III, Dated \_\_\_\_\_.
  4. Addendum No. IV, Dated \_\_\_\_\_.
  5. Addendum No. V, Dated \_\_\_\_\_.



1.8 CONTRACTOR'S LICENSE

- A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in the State of North Carolina, and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

1.9 SUBMISSION OF BID

- A. Respectfully submitted this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.
- B. Submitted By: \_\_\_\_\_  
(Name of Bidding Firm or Corporation)
- C. Authorized Signature: \_\_\_\_\_  
(Handwritten Signature)
- D. Signed By: \_\_\_\_\_  
(Type or Print Name)
- E. Title: \_\_\_\_\_  
(Owner/Partner/President/Vice President)
- F. Witness/Attest: \_\_\_\_\_  
(Handwritten Signature)
- G. Signed By: \_\_\_\_\_  
(Type or Print Name)
- H. Title: \_\_\_\_\_  
(Corporate Secretary or Assistant Secretary)
- I. Street Address: \_\_\_\_\_
- J. City, State, Zip: \_\_\_\_\_
- K. Phone: \_\_\_\_\_
- L. E-Mail: \_\_\_\_\_
- M. License No.: \_\_\_\_\_
- N. Federal ID No.: \_\_\_\_\_ (Affix Corporate Seal Here)

END OF BID FORM



# Bid Proposal Checklist

Company Name: \_\_\_\_\_

This checklist form and required submissions to be provided with each bid.

Please place a check in the space provided next to each required item included in bid envelope and **attach to outside of bid envelope.**

1. \_\_\_\_ Completed Form of Proposal
2. \_\_\_\_ Bid Bond or Cashier's Check (Bid specific security required)
3. \_\_\_\_ Completed MBE Forms  
    Affidavit A - Listing of Good Faith Efforts  
    Or  
    Affidavit B - Intent to Perform Contract with Own Forces

4. Include name and address of North Carolina insurance agent:

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

5. Include name and address of North Carolina bonding agent and bonding company:

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

Reminder Checklist:

1. Include in Bid Amount: Allowances  
Sales Tax  
Permits and Fees



## **GUIDELINES FOR RECRUITMENT AND SELECTION OF MINORITY BUSINESSES FOR PARTICIPATION IN BRUNSWICK COUNTY SCHOOLS CONSTRUCTION CONTRACTS**

In accordance with G.S. 143-128.2 (effective January 1, 2002) these guidelines establish goals for minority participation in single-prime bidding, separate-prime bidding, construction manager at risk, and alternative contracting methods, on construction projects in the amount of \$300,000 or more. The legislation provides that Brunswick County Schools shall have a verifiable ten percent (10%) goal for participation by minority businesses in the total value of work for each project for which a contract or contracts are awarded. These requirements are published to accomplish that end.

### **SECTION A: INTENT**

It is the intent of these guidelines that Brunswick County Schools, as awarding authority for construction projects, and the contractors and subcontractors performing the construction contracts awarded shall cooperate and in good faith do all things legal, proper and reasonable to achieve the statutory goal of ten percent (10%) for participation by minority businesses in each construction project as mandated by GS 143-128.2. Nothing in these guidelines shall be construed to require contractors or awarding authorities to award contracts or subcontracts to or to make purchases of materials or equipment from minority business contractors or minority-business subcontractors who do not submit the lowest responsible, responsive bid or bids.

### **SECTION B: DEFINITIONS**

1. Minority - a person who is a citizen or lawful permanent resident of the United States and who is:
  - a. Black, that is, a person having origins in any of the black racial groups in Africa;
  - b. Hispanic, that is, a person of Spanish or Portuguese culture with origins in Mexico, South or Central America, or the Caribbean Islands, regardless of race;
  - c. Asian American, that is, a person having origins in any of the original peoples of the Far East, Southeast Asia and Asia, the Indian subcontinent, the Pacific Islands;
  - d. American Indian, that is, a person having origins in any of the original peoples of North America; or
  - e. Female
2. Minority Business - means a business:
  - a. In which at least fifty-one percent (51%) is owned by one or more minority persons, or in the case of a corporation, in which at least fifty-one percent (51%) of the stock is owned by one or more minority persons or socially and economically disadvantaged individuals; and
  - b. Of which the management and daily business operations are controlled by one or more of the minority persons or socially and economically disadvantaged individuals who own it.
3. Socially and economically disadvantaged individual - means the same as defined in 15 U.S.C. 637. "Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities". "Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged".
4. Public Entity - means State and all public subdivisions and local governmental units.
5. Owner - Brunswick County Schools.
6. Designer – Any person, firm, partnership, or corporation, which has contracted with Brunswick County Schools to perform architectural or engineering, work.
7. Bidder - Any person, firm, partnership, corporation, association, or joint venture seeking to be awarded a public contract or subcontract.

8. Contract - A mutually binding legal relationship or any modification thereof obligating the seller to furnish equipment, materials or services, including construction, and obligating the buyer to pay for them.
9. Contractor - Any person, firm, partnership, corporation, association, or joint venture which has contracted with Brunswick County Schools to perform construction work or repair.
10. Subcontractor - A firm under contract with the prime contractor or construction manager at risk for supplying materials or labor and materials and/or installation. The subcontractor may or may not provide materials in his subcontract.

## **SECTION C: RESPONSIBILITIES**

### 1. Brunswick County Schools

Brunswick County Schools or its authorized agent will be responsible for the following:

- a. Furnish to the Office for Historically Underutilized Businesses in the NC Department of Administration (the "HUB Office") a minimum of twenty-one days prior to the bid opening the following:
  1. Project description and location;
  2. Locations where bidding documents may be reviewed;
  3. Name of a representative of the owner who can be contacted during the advertising period to advise who the prospective bidders are;
  4. Date, time and location of the bid opening.
  5. Date, time and location of prebid conference, if scheduled.
- b. Attending scheduled prebid conference, if necessary, to clarify requirements of the general statutes regarding minority-business participation, including the bidders' responsibilities.
- c. Reviewing the apparent low bidders' statutory compliance with the requirements listed in the proposal, that must be complied with, if the bid is to be considered as responsive, prior to award of contracts. Brunswick County Schools reserves the right to reject any or all bids and to waive informalities.
- d. Reviewing of minority business requirements at Preconstruction conference.
- e. Monitoring of contractors' compliance with minority business requirements in the contract documents during construction.
- f. Resolve any protest and disputes arising after implementation of the plan.

Before awarding a contract, Brunswick County Schools shall do the following:

- g. Develop and implement a minority business participation outreach plan to identify minority businesses that can perform public building projects and to implement outreach efforts to encourage minority business participation in these projects to include education, recruitment, and interaction between minority businesses and non-minority businesses.
- h. Attend the scheduled prebid conference.
- i. At least 10 days prior to the scheduled day of bid opening, notify minority businesses that have requested notices from Brunswick County Schools for public construction or repair work and minority businesses that otherwise indicated to the HUB Office an interest in the type of work being bid or the potential contracting opportunities listed in the proposal. The notification shall include the following:
  1. A description of the work for which the bid is being solicited.
  2. The date, time, and location where bids are to be submitted.
  3. The name of the individual within the owner's organization who will be available to answer questions about the project.
  4. Where bid documents may be reviewed.
  5. Any special requirements that may exist.
- j. Utilize other media, as appropriate, likely to inform potential minority businesses of the bid being sought.

- k. Maintain documentation of any contacts, correspondence, or conversation with minority business firms made in an attempt to meet the goals.
- l. Review, jointly with the designer, all requirements of G.S. 143-128.2(c) and G.S. 143-128.2(f) – (i.e. bidders' proposals for identification of the minority businesses that will be utilized with corresponding total dollar value of the bid and affidavit listing good faith efforts, or affidavit of self-performance of work, if the contractor will perform work under contract by its own workforce) - prior to recommendation of award to the Brunswick County Board of Education.
- m. Evaluate documentation to determine good faith effort has been achieved for minority business utilization prior to award of a contract.
- n. Review prime contractors' pay applications for compliance with minority business utilization commitments prior to payment.

2. Designer

Under the single-prime bidding, separate prime bidding, construction manager at risk, or alternative contracting method, the designer will:

- a. Attend the scheduled prebid conference to explain minority business requirements to the prospective bidders.
- b. Assist Brunswick County Schools to identify and notify prospective minority business prime and subcontractors of potential contracting opportunities.
- c. Maintain documentation of any contacts, correspondence, or conversation with minority business firms made in an attempt to meet the goals.
- d. Review jointly with Brunswick County Schools, all requirements of G.S. 143-128.2(c) and G.S.143-128.2(f) – (i.e. bidders' proposals for identification of the minority businesses that will be utilized with corresponding total dollar value of the bid and affidavit listing Good Faith Efforts, or affidavit of self-performance of work, if the contractor will perform work under contract by its own workforce) - prior to recommendation of award.
- e. During construction phase of the project, review "MBE Documentation for Contract Payment" – (Appendix E) for compliance with minority business utilization commitments. Submit Appendix E form with monthly pay applications to the owner.
- f. Make documentation showing evidence of implementation of Designer's responsibilities available for review by Brunswick County Schools, upon request.

3. Prime Contractor(s), CM at Risk, and Its First-Tier Subcontractors

Under the single-prime bidding, the separate-prime bidding, construction manager at risk and alternative contracting methods, contractor(s) will:

- a. Attend the scheduled prebid conference.
- b. Identify or determine those work areas of a subcontract where minority businesses may have an interest in performing subcontract work.
- c. At least ten (10) days prior to the scheduled day of bid opening, notify minority businesses of potential subcontracting opportunities listed in the proposal. The notification will include the following:
  - 1. A description of the work for which the subbid is being solicited.
  - 2. The date, time and location where subbids are to be submitted.
  - 3. The name of the individual within the company who will be available to answer questions about the project.
  - 4. Where bid documents may be reviewed.
  - 5. Any special requirements that may exist, such as insurance, licenses, bonds and financial arrangements.

If there are more than three (3) minority businesses in the general locality of the project who offer similar contracting or subcontracting services in the specific trade, the contractor(s) shall notify three (3), but may contact more, if the contractor(s) so desires.

- d. During the bidding process, comply with the contractor(s) requirements listed in the proposal for minority participation.

- e. Identify on the bid, the minority businesses that will be utilized on the project with corresponding total dollar value of the bid and affidavit listing good faith efforts as required by G.S. 143-128.2(c) and G.S. 143-128.2(f).
- f. Make documentation showing evidence of implementation of Prime Contractor's, CM-at-Risk and First-Tier Subcontractor responsibilities available for review by Brunswick County Schools, upon request.
- g. Upon being named the apparent low bidder, the Bidder shall provide one of the following: (1) an affidavit that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable goal; (2) if the percentage is not equal to the applicable goal, then documentation of all good faith efforts taken to meet the goal. Failure to comply with these requirements is grounds for rejection of the bid and award to the next lowest responsible and responsive bidder.
- h. The contractor(s) shall identify the name(s) of minority business subcontractor(s) and corresponding dollar amount of work on the schedule of values. The schedule of values shall be provided as required in the General Conditions of the Contract to facilitate payments to the subcontractors.
- i. The contractor(s) shall submit with each monthly pay request(s) and final payment(s), "MBE Documentation for Contract Payment" for designer's review.
- j. During the construction of a project, at any time, if it becomes necessary to replace a minority business subcontractor, immediately advise the owner, in writing, of the circumstances involved. The prime contractor shall make a good faith effort to replace a minority business subcontractor with another minority business subcontractor.
- k. If during the construction of a project additional subcontracting opportunities become available, make a good faith effort to solicit subbids from minority businesses.
- l. It is the intent of these requirements that they shall apply to all contractors performing as prime contractor and first tier subcontractor under construction manager at risk on Brunswick County Schools projects.

4. Minority Business Responsibilities

While minority businesses are not required to become certified in order to participate in Brunswick County Schools construction projects, it is recommended that they become certified and should take advantage of the appropriate technical assistance that is made available. In addition, minority businesses who are contacted by owners or bidders must respond promptly whether or not they wish to submit a bid.

**SECTION 4: DISPUTE PROCEDURES**

It is the policy of Brunswick County Schools that disputes that involves a person's rights, duties or privileges, should be settled through informal procedures.

## Identification of HUB Certified/ Minority Business Participation

I, \_\_\_\_\_,  
(Name of Bidder)

do hereby certify that on this project, we will use the following HUB Certified/ minority business as construction subcontractors, vendors, suppliers or providers of professional services.

Firm Name, Address and Phone #	Work Type	*Minority Category	**HUB Certified (Y/N)

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

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

**The total value of minority business contracting will be (\$)\_\_\_\_\_.**

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

County of \_\_\_\_\_

(Name of Bidder)

Affidavit of \_\_\_\_\_

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

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

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

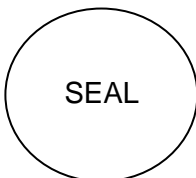
The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure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

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

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

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

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



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

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

County of \_\_\_\_\_

Affidavit of \_\_\_\_\_

(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the \_\_\_\_\_

\_\_\_\_\_ contract.

(Name of Project)

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

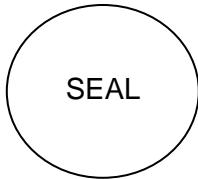
The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement. The Bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible.

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

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

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

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



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

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

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

County of \_\_\_\_\_

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

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

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

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

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

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

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

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

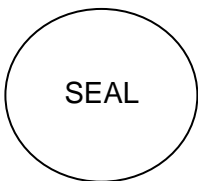
Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

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

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

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

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



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

# State of North Carolina AFFIDAVIT D – Good Faith Efforts

County of \_\_\_\_\_

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

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

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

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

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

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

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

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

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

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

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

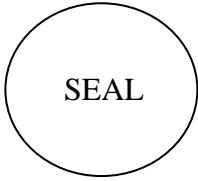
Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

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

Date: \_\_\_\_\_ Name of Authorized Officer: \_\_\_\_\_

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

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



State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

Notary Public \_\_\_\_\_

My commission expires \_\_\_\_\_

**APPENDIX E**

**MBE DOCUMENTATION FOR CONTRACT PAYMENTS**

Prime Contractor/Architect: \_\_\_\_\_

Address & Phone: \_\_\_\_\_

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

Pay Application #: \_\_\_\_\_ Period: \_\_\_\_\_

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

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

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

Approved/Certified By:

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

**SUBMIT WITH EACH PAY REQUEST - FINAL PAYMENT - FINAL REPORT**



**OWNER-CONTRACTOR AGREEMENT**

SCHOOL NAME: ( [REDACTED] )

THIS AGREEMENT, in three (3) copies, made this ( [REDACTED] ) day of \_\_\_\_\_, Two Thousand and Twenty by and between County of Brunswick, North Carolina (herein referred to as the "Owner"), whose mailing address is 30 Government Center Dr., NE, Bolivia, NC 28422 and \_\_\_\_\_ (herein referred to as the "Contractor"), whose mailing address is \_\_\_\_\_. Correspondence, submittals, and notices relating to or required under this Contract shall be sent in writing to the above addresses; unless either party is notified in writing by the other, of a change in address.

WITNESSETH:

WHEREAS, it is the intent of the Owner to obtain the services of the Contractor in connection with the new construction of ( [REDACTED] ) (hereinafter referred to as the "Project" or the "Work"); and

WHEREAS, the Contractor desires to perform such construction in accordance with the terms and conditions of this Agreement,

NOW, THEREFORE, in consideration of the promises made herein and other good and valuable consideration, the following terms and conditions are hereby mutually agreed to, by and between the Owner and Contractor:

Article 1

**DEFINITIONS**

- 1.1 All terms in this Agreement which are defined in the Information for Bidders and the General Conditions shall have the meanings designated therein.

1.2 The Contract Documents are as defined in the General Conditions. Such documents form the Contract, and all are as fully a part thereof as if attached to this Agreement or repeated herein. The Contract Documents consist of the Owner-Contractor Agreement, the General and Supplemental Conditions of the Contract, the Drawings, the Specifications, all Addenda issued prior to bidding, and all Modifications and Change Orders issued after execution of the Contract.

Article 2

STATEMENT OF THE WORK

2.1 The Project is the Work identified in the plans and specifications prepared by \_\_\_\_\_ dated \_\_\_\_\_, 202\_ for \_\_\_\_\_ Board of Education, \_\_\_\_\_, including the following addenda:

\_\_\_\_\_

A listing of the plans and specifications included in the Contract Documents is attached as Exhibit A.

2.2 The Parties agree that the Project shall include the following alternates:

\_\_\_\_\_

2.3 The Parties agree to the following modifications to the Project's plans and specifications, including the noted value engineering items:

*List item(s) and proposed deduct/add(s). If none, delete this language list "None"*

2.4 The Parties agree that the following allowances are included in the Contract Sum in Section 5.1 below:

*List item(s) and proposed allowance(s). If none, delete this language list "None"*

- 2.5 The Contractor shall provide and pay for all materials, tools, equipment, labor and professional and non-professional services, and shall perform all other acts and supply all other things necessary, to fully and properly perform and complete the Work, as required by the Contract Documents.
- 2.6 The Contractor shall further provide and pay for all related facilities described in any of the Contract Documents, including all work expressly specified therein and such additional work as may be reasonably inferred therefrom, saving and excepting only such items of work as are specifically stated in the Contract Documents not to be the obligation of the Contractor. The totality of the obligations imposed upon the contractor by this Article and by all other provisions of the Contract Documents, as well as the structures to be built and the labor to be performed, is herein referred to as the "Work".

### Article 3

#### DESIGN CONSULTANT

- 3.1 The Design Consultant (as defined in the General Conditions) shall be ( ) whose address is ( ), however, that the Owner may, without liability to the Contractor, unilaterally amend this Article from time to time by designating a different person or organization to act as its Design Consultant and so advising the Contractor in writing, at which time the person or organization so designated shall be the Design Consultant for purposes of this Contract.

### Article 4

#### TIME OF COMMENCEMENT AND COMPLETION

- 4.1 The Contractor shall commence the Work promptly upon the date established in the Notice to Proceed. If there is no Notice to Proceed, the date of commencement of the Work shall be the date of this Agreement or such other date as may be established herein.
- 4.2 Time is of the essence. The Contractor shall achieve Final Completion, as defined in the General Conditions on or before the date established for Final Completion in the Supplemental Conditions.

- 4.3 The Supplemental Conditions contains certain specific dates that shall be adhered to and are the last acceptable dates unless modified in writing by mutual agreement between the Contractor and the Owner. All dates indicate midnight unless otherwise stipulated. The only exceptions to this schedule are defined in the General Conditions under 7.2 DELAYS AND EXTENSIONS OF TIME.
- 4.4 Should the Contractor fail to complete the Work on or before the dates stipulated for Substantial Completion and/or Final Completion, or such later date as may result from an extension of time granted by the Owner, he shall pay the Owner, as liquidated damages the sums set forth in the General and Supplemental Conditions.

Article 5

CONTRACT SUM

- 5.1 Provided that the Contractor shall strictly and completely perform all of its obligations under the Contract Documents, and subject only to additions and deductions by Modification or as otherwise provided in the Contract Documents, the Owner shall pay to the Contractor, in current funds and at the time and in the installments hereinafter specified, the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) herein referred to as the "Contract Sum". This amount includes the base bid and the Alternates in Section 2.2
- 5.2 The Contract Sum includes the value engineering items and other contract modifications noted in Section 2.3 above that total \$ \_\_\_\_\_.
- 5.3 Unit Prices are established as follows for the Project:

Unit Price No. 1		\$
Unit Price No. 2		\$
Unit Price No. 3		\$
Unit Price No. 4		\$
Unit Price No. 5		\$

Unit Price No. 6		\$
Unit Price No. 7		\$
Unit Price No. 8		\$

Article 6

PROGRESS PAYMENTS

6.1 The Contractor hereby agrees that on or about the First day of the month for every month during the performance of the Work he will deliver to the Owner's Project Manager an Application for Payment in accordance with the provisions of Article 8 of the General Conditions. This date may be changed upon mutual agreement, stated in writing, between the Owner and Contractor. Payment under this Contract shall be made as provided in the General Conditions. Payments due and unpaid under the Contract Documents shall not bear interest.

Article 7

OTHER REQUIREMENTS

7.1 The Contractor shall submit the Performance Bond, Labor and Material Payment Bond and Certification of Insurance as required by the Contract Documents.

7.2 The Owner shall furnish to the Contractor one (1) set of drawings and one (1) set of specifications, at no extra cost, for use in the Construction of the Work. Additional sets of drawings or specifications may be obtained by the Contractor by paying the Owner for the costs of reproduction, handling and mailing.

7.3 The Contractor shall make a good faith effort to utilize Historically Underutilized Businesses (HUB's) per N.C. Gen. Stat. 143-128.2, and as described in the construction documents.

7.4 The General Conditions, Supplemental Conditions and the plans and specifications, including any addenda, are incorporated herein by reference.

7.5 This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, and the counterparts shall constitute one and the same instrument, which shall be sufficient evidence by any one thereof. This Agreement may also be executed electronically. By signing electronically, the parties indicate their intent to comply with the Electronic Commerce in Government Act (N.C.G.S § 66-58.1 et seq.) and the Uniform Electronic Act (N.C.G.S. § 66-311 et seq.). Delivery of an executed counterpart of this Agreement by either electronic means or by facsimile shall be as effective as a manually executed counterpart.

IN WITNESS WHEREOF, County of Brunswick, North Carolina (hereinbefore called the "Owner") has caused these presents to be signed and its corporate seal to be hereunto affixed, attested by its Chairperson and Secretary, and \_\_\_\_\_ (hereinbefore called "Contractor") has caused these presents to be signed by its President and its Corporate seal to be hereunto affixed, as hereinafter attested, all as of the day and year first above written.

**COUNTY OF BRUNSWICK, NORTH CAROLINA**

\_\_\_\_\_ (Seal)

County Chairman

ATTEST:

\_\_\_\_\_ (Seal)

Clerk to the Board of Commissioners

[Corporate Seal]

\_\_\_\_\_

This contract was approved by the Board on the \_\_\_\_ day of \_\_\_\_\_, 2020.

\_\_\_\_\_ (CONTRACTOR)

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

\_\_\_\_\_ (Print Name), President or Vice-President

ATTEST:

\_\_\_\_\_

Corporate Secretary

[Corporate Seal]

This Instrument Has Been Pre-audited In The Manner Required By The School Budget And Fiscal Control Act	This Instrument Has Been Pre-audited In The Manner Required By The Local Government Budget And Fiscal Control Act
Freyja Cahill, Finance Officer Brunswick County Schools	Aaron Smith, Director Of Fiscal Operations, County of Brunswick, North Carolina



# LABOR AND MATERIAL PAYMENT BOND

THIS BOND IS ISSUED SIMULTANEOUSLY WITH PERFORMANCE BOND IN FAVOR OF THE OWNER CONDITIONED ON THE FULL AND FAITHFUL PERFORMANCE OF THE CONTRACT

**IT IS HEREBY AGREED** that \_\_\_\_\_ (Insert full name and address of Contractor)

as Principal, hereinafter called "Principal," and, \_\_\_\_\_ (Insert full name and address of Surety)

as Surety, hereinafter called "Surety," are held and firmly bound unto the

as Obligee, hereinafter called Owner, for the use and benefit of claimants as hereinbelow defined, in the amount of \_\_\_\_\_ for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these obligations.

WHEREAS, Principal has by written agreement dated \_\_\_\_\_, 20\_\_\_\_\_, entered into a contract with Owner for the construction of \_\_\_\_\_ (Insert the name of the Project)

in accordance with Drawings and Specifications prepared by \_\_\_\_\_ (Insert full name and address of Architect/Engineer)

which contract is by reference made a part hereof, and is hereinafter referred to as the "Contract."

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is defined as one having a direct contract with the principal or with a Subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.
2. The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
  - a) Unless claimant, other than one having a direct contract with the Principal, shall have given written notice to any two of the following: the Principal, the Owner, or the Surety above named, within ninety (90) days, after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is

made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail; postage prepaid, in an envelope addressed to the Principal, Owner or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.

b) After the expiration of one (1) year following the date on which Principal ceased Work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

c) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the Project, or any part thereof, is situated, or in the United States District Court for the district in which the Project, or any part thereof, is situated, and not elsewhere.

4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

Signed and sealed this \_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_.

**PRINCIPAL**

[Affix corporate seal]

\_\_\_\_\_  
(Name) \_\_\_\_\_  
(Title) \_\_\_\_\_

\_\_\_\_\_  
(Witness)

**SURETY**

[Affix corporate seal]

\_\_\_\_\_  
(Name) \_\_\_\_\_  
(Title) \_\_\_\_\_

\_\_\_\_\_  
(Witness)

## PERFORMANCE BOND

IT IS HEREBY AGREED that

(Insert full name and address of Contractor)

as Principal, hereinafter called Contractor, and,

(Insert full name and address of Surety)

as Surety, hereinafter called Surety, are held and firmly bound unto the

as Obligee, hereinafter called Owner, in the amount of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these obligations.

WHEREAS, Contractor has by written agreement dated \_\_\_\_\_, 20\_\_\_\_, entered into a contract with Owner for the construction of \_\_\_\_\_ (Insert the name of the Project)

in accordance with Drawings and Specifications prepared by \_\_\_\_\_ (Insert full name and address of Architect/Engineer)

which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect. The Surety hereby waives notice of any alteration or extension of time made by the Owner.

Whenever Contractor shall be, and declared by Owner to be in default, under the Contract, the Owner having performed Owner's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

- 1) Complete the Contract in accordance with its terms and conditions, or
- 2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the Owner elects, upon determination by the Owner and the Surety jointly of the lowest

responsible bidder, arrange for a contract between such bidder and Owner, and make available as Work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner to Contractor.

Any suit under this bond must be instituted before the expiration of any applicable statute of limitations under the Contract.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of the Owner.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

**PRINCIPAL**

[Affix corporate seal]

\_\_\_\_\_  
(Name) \_\_\_\_\_  
(Title) \_\_\_\_\_

\_\_\_\_\_  
(Witness)

**SURETY**

[Affix corporate seal]

\_\_\_\_\_  
(Name) \_\_\_\_\_  
(Title) \_\_\_\_\_

\_\_\_\_\_  
(Witness)

**SECTION GC**  
**GENERAL CONDITIONS**  
**OF THE**  
**CONTRACT FOR CONSTRUCTION**

**TABLE OF ARTICLES**

1. CONTRACT DOCUMENTS
  2. OWNER
  3. CONTRACTOR
  4. SUBCONTRACTORS
  5. WORK BY OWNER OR BY SEPARATE CONTRACTORS
  6. MISCELLANEOUS PROVISIONS
  7. TIME
  8. PAYMENTS AND COMPLETION
  9. INSURANCE
  10. CHANGES IN THE WORK
  11. UNCOVERING AND CORRECTION
  12. TERMINATION OF THE CONTRACT
- APPENDIX A – Contractor’s Sales Tax Report  
APPENDIX B-1 – Change Proposal Form (Time & Materials or Unit Price)  
APPENDIX B-2 – Change Proposal Form (Fixed Price)  
APPENDIX C – Sexual Registry Check Form

## **ARTICLE 1**

### **CONTRACT DOCUMENTS**

#### 1.1 GENERAL

- 1.1.1 The Contract Documents consist of the Owner-Contractor Agreement, the Conditions of the Contract (General, Supplementary and other Conditions), the Drawings, the Specifications, and all Addenda issued prior to and all Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order issued pursuant to the provisions of Article 10, (3) a written interpretation issued by the Design Consultant, or (4) a written order for a minor change in the Work issued pursuant to this contract.
- 1.1.2 By executing the Contract, the Contractor represents that he has visited the site, familiarized himself with the local conditions under which the Work is to be performed, and correlated his observations with the requirements of the Contract Documents.
- 1.1.4 The Contractor will be furnished with 3 sets of drawings and specifications at no cost. Additional copies may be purchased.

#### **END OF ARTICLE 1**

## **ARTICLE 2**

### **OWNER**

#### 2.1 INFORMATION, SERVICES AND RIGHTS OF THE OWNER

- 2.1.1 Owner: County of Brunswick, North Carolina by and through its authorized agent the Brunswick County Board of Education
- 2.1.2 The Owner shall at all times have access to the Work whenever it is in preparation or progress. The Contractor shall provide safe facilities for such access.
- 2.1.3 The Owner shall not be responsible for or have control or charge of the construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, and will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.
- 2.1.4 The Owner will have authority to require special inspection or testing of the Work whether or not such Work is then fabricated, installed, or completed. However, neither the Owner's authority to act under Subparagraph 6.5.3, nor any decision made by the Owner in good faith either to exercise or not to exercise such authority shall give rise to any duty or responsibility of the Owner to the Contractor, any Subcontractor, any of their agents or employees, or any other person performing any of the Work.
- 2.1.5 The Owner shall have the authority and discretion to call, schedule, and conduct job meetings to be attended by the Contractor, representatives of his Subcontractors, and the Design Consultant, to discuss such matters as procedures, progress, problems, and scheduling.
- 2.1.6 The Owner and Design Consultant shall not be responsible or liable to Contractor for the acts, errors or omission of the Contractor, any separate Subcontractor, any separate contractor or any contractor's or subcontractor's agents or employees, or any other persons performing any of the Work.
- 2.1.7 Information or services under the Owner's control shall be furnished by the Owner with reasonable promptness to avoid unreasonable delay in the orderly progress of the Work.

2.1.8 The parties acknowledge that the Owner may perform all or part of its obligations pursuant to this Agreement through the Superintendent or his designee.

2.1.9 The foregoing rights are in addition to other rights of the Owner enumerated herein and those provided by law.

## 2.2 OWNER'S RIGHT TO STOP OR TO SUSPEND THE WORK

2.2.1 If the Contractor fails to correct defective Work or fails to carry out the Work or supply labor and materials in accordance with the Contract Documents, the Owner by a written order may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the Owner to stop the Work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

2.2.2 The Owner may order the Contractor in writing to suspend, delay, or interrupt all or any part of the Work for such period of time as he may determine to be appropriate for the convenience of the Owner.

2.2.3 If the performance of all or any part of the Work (including the work of the Contractor and its subcontractors) is, for an unreasonable period of time, suspended, delayed, or interrupted by an act of the Owner or the Design Consultant in the administration of this Contract, or by failure of any one of them to act within the time specified in this Contract (or if no time is specified, within a reasonable time), an adjustment shall be made for an increase in the actual time required for performance of the Work by the Contractor, due solely to such unreasonable suspension, delay, or interruption and the Contract modified in writing accordingly. However, no claim shall be made under this Subparagraph for any suspension, delay, or interruption pursuant to Subparagraph 2.3.1, or for which claim is provided or excluded under any other provision of this Contract. No claim under this Subparagraph shall be allowed on behalf of the Contractor or its subcontractors, unless within 10 days after the act or failure to act involved, and for continuing or ongoing acts or failures to act within 10 days of the first day of the act or failure to act the Contractor submits to the Owner a written statement setting forth, as fully as then practicable, the extent of such claim, and unless the claim is asserted in writing within 20 days after the termination of such suspension, delay, or interruption. For continuing or ongoing acts or failures to act, the Contractor shall update its written statement every 15 days until the suspension, delay or interruption is terminated. The Contractor shall waive any and all claims not filed in strict conformance with this paragraph. The Contractor shall indemnify, defend and hold the Owner harmless from any claim by a Subcontractor that is waived because it is not filed in strict conformance with this paragraph or any other provision of this Agreement regarding claims.

2.2.4 In the event of a suspension of work or delay or interruption of work, the Contractor will and will cause his subcontractors to protect carefully his, and their, materials and work against damage or injury from the weather and maintain completed and uncompleted portions of the work as required by the Contract Documents. If, in the opinion of the Owner, any work or material shall have been damaged or injured by reason of failure on the part of the Contractor or any of his subcontractors to so protect same, such work and materials shall be removed and replaced at the expense of the Contractor.

2.2.5 No claim by the Contractor shall be allowed if asserted after final payment under this Contract or if it is not asserted in strict conformance with Article 10.

## 2.3 OWNER'S RIGHT TO CARRY OUT THE WORK

2.3.1 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within ten days after the date written notice is mailed by the Owner to commence and continue remedy of such default or neglect with diligence and promptness, the Owner may, without prejudice to any other remedy he may have, make good such deficiencies and may further elect to complete all Work thereafter through such means as the Owner may select, including the use of a new contractor. In such case the Owner shall issue a Change Order deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for the Design Consultant's additional services made necessary by such default, neglect or failure. Such action by the Owner and the amount charged to the Contractor are both subject

to the prior approval of the Design Consultant. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner. Notwithstanding the Owner's right to carry out a portion of the work, warranty, maintenance and protection of the work remains the Contractor's responsibility. Further, the provisions of this paragraph do not affect the Owner's right to require the correction of defective or non-conforming work in accordance with this contract.

## END OF ARTICLE 2

### **ARTICLE 3**

#### **CONTRACTOR**

##### 3.1 DEFINITION

3.1.1 This entire Contract is not one of agency by the Contractor for Owner but one in which Contractor is engaged independently in the business of providing the services and performing the Work herein described as an independent contractor.

##### 3.2 REVIEW OF CONTRACT DOCUMENTS

3.2.1 Before placing his proposal to the Owner, and continuously after execution of the Contract, the Contractor shall carefully study and compare the Contract Documents and shall at once report to the Owner any error, inconsistency or omission he may discover, including any requirement which may be contrary to any law, ordinance, rule, regulation or order of any public authority bearing on the performance of the Work. If the Contractor has reported in writing an error, inconsistency or omission, has promptly stopped the affected work until otherwise instructed, and has otherwise followed the instructions of the Owner, the Contractor shall not be liable to the Owner or the Design Consultant for any damage resulting solely from any such errors, inconsistencies or omissions in the Contract Documents. The Contractor shall perform no portion of the Work at any time without Contract Documents and, where required, approved Shop Drawings, Product Data or Samples for such portion of the Work.

3.2.2 All designs, drawings, specifications, design calculations, notes and other works provided for this contract are the sole property of the Owner and may not be used on any other design or construction project. The use of the design, including tracings and specifications, by any person or entity, for the purpose other than the Project, shall be at the full risk of such person or entity

##### 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

3.3.1 The Contractor shall supervise and direct the Work, using his best skill and attention. He shall be solely responsible for and have control over all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work and all statutory or legal requirements. This requirement applies continuously throughout contract performance and is not limited to regular working hours.

3.3.2 The Contractor shall be responsible to the Owner for the acts and omissions of his employees, Subcontractors and Sub- subcontractors, suppliers, their agents and employees, and other persons performing any of the Work and for their compliance with each and every requirement of the Contract Documents, in the same manner as if they were directly employed by the Contractor.

3.3.3 The Contractor shall not be relieved from his obligations to perform the Work in accordance with the Contract Documents either by the acts, failures to act or duties of the Owner or the Design Consultant in their administration of the Contract, or by inspections, tests or approvals (or the lack thereof) required or performed under Paragraph 6.5 by persons other than the Contractor.

3.3.4 The Contractor shall verify all grades, lines, levels and dimensions as indicated and shown on the Drawings and Specifications prior to beginning the work and shall immediately report in writing any errors or inconsistencies to the Design Consultant before commencing the work.

3.3.5 Contractor shall protect existing surfaces, finishes and adjacent facilities from damage during construction. Any damage shall be repaired by Contractor at his own expense prior to completion of the Project. Prior to construction start, Contractor and Owner shall perform an inspection to record existing conditions, damaged and undamaged.

### 3.4 LABOR AND MATERIALS

3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, supplies, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary or proper for or incidental to the execution and completion of the Work required by and in accordance with the Contract Documents and any applicable code or statute, whether specifically required by the Contract Documents or whether their provision may reasonably be inferred as necessary to produce the intended results, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. Final payment will not be made until the Work is so completed.

3.4.2 The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him. The Owner may, by notice in writing, require the Contractor to remove from the work any employee the Owner deems incompetent, careless or otherwise objectionable. All agents and workers of the Contractor and its Subcontractors shall wear identification badges provided by the Contractor at all times they are on the Owner's property. The identification badges shall at a minimum display the company name, telephone number and employee's picture and name and must be worn in plain view at all times. Additionally, once school staff occupies the building, all contractors and their respective subcontractors shall be required to sign in and out of the visitor's log each day they are performing services. They must also wear a visitor's pass which will indicate to staff that they have met this requirement which applies to anyone performing services anywhere on the school property.

3.4.3 The Contractor shall be responsible for ensuring that the Work is completed in a skillful and workmanlike manner.

3.4.4 All equipment, apparatus and/or devices of any kind to be incorporated into the Work that are shown or indicated on the drawings or called for in the specifications or required for the completion of the work shall be entirely satisfactory to the Owner and the Design Consultant as regards operations, capacity and/or performance. No approval, either written or verbal, of any drawings, descriptive data or samples of such equipment, apparatus and/or device shall relieve the Contractor of his responsibility to turn over the same in good working order for its intended purpose at the completion of the Work in complete accordance with the Contract Documents. Any equipment, apparatus and/or device not fulfilling these requirements shall be removed and replaced by proper and acceptable equipment, etc. or put in good working order satisfactory to the Owner and Design Consultant without additional cost to the Owner.

3.4.5 All materials and Work shall meet North Carolina Building Codes. Should there be any discrepancies between design and code, the more stringent requirement shall apply. All materials shall comply with standards (or approved products) as set by the Specifications. Unless otherwise specified, NO ASBESTOS CONTAINING MATERIALS SHALL BE INSTALLED. BY DEFINITION, INSTALLATION OF ASBESTOS MATERIALS WILL BE CONSIDERED CONTRACTOR'S NEGLIGENCE AND THE CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO REMOVE THE ASBESTOS AND RESTORE THE SITE TO THE 'PRE-CONTRACT' CONDITION. Contractor shall assume all facilities built prior to 1979 have lead-based paint. Any paint removal shall be in accordance with OSHA standard pertaining to lead (29 CFR 1915.1025).

### 3.5 WARRANTY

3.5.1 The Contractor warrants to the Owner and the Design Consultant that all materials and equipment furnished

under this Contract will be new unless otherwise specified, and that all workmanship will be of first class quality, free from faults and defects and in conformance with the Contract Documents and all other warranties and guaranties specified therein. Where no standard is specified for such workmanship or materials, they shall be the best of their respective kinds. All Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Owner or the Design Consultant, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of Article 11.

3.5.2 The warranties set forth in this Paragraph 3.5 and elsewhere in the Contract Documents shall survive Final Completion of the Work.

3.5.3 If, within one year after the Date of Substantial Completion of the Work or designated portion thereof or within one year after acceptance by the Owner of designated equipment or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be defective, not in accordance with the Contract Documents, or not in accordance with the guarantees and warranties specified in the Contract documents, the Contractor shall correct it within five (5) working days or such other period as mutually agreed, after receipt of a written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice with reasonable promptness after discovery of the condition. For items, which remain incomplete or uncorrected on the date of Substantial Completion, the one-year warranty shall begin on the date of Final Completion of the Work. If the Contract Documents include painting work, the one year warranty period in this section shall be extended to two years.

3.5.4 If at any time deficiencies in the Work are discovered which are found to have resulted from fraud or misrepresentation, or an intent or attempt to or conspiracy to defraud the Owner by the Contractor, any Subcontractor or Supplier, the Contractor will be liable for replacement or correction of such Work and any damages which Owner has incurred related thereto, regardless of the time limit of any guarantee or warranty.

3.5.5 The Contractor shall bear the cost of making good all work of the Owner, separate contractors or others, destroyed or damaged by such correction or removal required under this Article 3, Article 11 or elsewhere in the Contract Documents.

### 3.6 TAXES

3.6.1 The Contractor shall pay all sales, consumer, use and other similar taxes for the Work or portions thereof provided by the Contractor which are legally enacted at the time bids are received, whether or not yet effective. The Contractor shall indemnify and hold the Owner harmless from any claims arising out of the Contractor's failure to pay all required taxes, including claims by the county for its inability to recover taxes that were not properly paid to the State of North Carolina by the Contractor.

3.6.2 The Contractor shall provide a completed Contractor's Sales Tax Report (attached hereto as Appendix A) with each application for payment for all items provided by the Contractor or any Sub-Contractors and incorporated into this project. The Contractor shall account for at least 2% of the total contract amount in sales tax or provide justification satisfactory to the Owner that the actual sales tax paid is less than 2%. In the event the Contractor does not provide adequate justification to support the shortfall, the Contractor shall pay the Owner the difference between the amount accounted for and the 2% minimum. Such compensation shall not be deemed a penalty, but reimbursement of funds the Owner would otherwise be entitled to recover from the State.

3.6.3 Sales and Use Tax. Contractor shall be responsible for complying with any applicable sales and use tax obligations imposed by Chapter 105, Article 5 of the North Carolina General Statutes. Where Contractor has been contracted with to oversee "new construction" or "reconstruction" as defined in G.S. 105-164.4H, Contractor shall be responsible for issuing and maintaining an Affidavit of Capital Improvement.

### 3.7 PERMITS, FEES AND NOTICES

3.7.1 The Contractor shall secure and pay for the building permit and for all other permits and governmental fees

necessary for the proper execution and completion of the Work. Costs for service and final service connections by public utilities will be reimbursed to the Contractor by the Owner. The Owner shall not be responsible for the cost of any temporary utilities.

3.7.2 The Contractor will pay for his license and reinspection fees for the work necessary for the proper execution and completion of the work.

3.7.3 The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work.

### 3.8 PROGRESS SCHEDULE

3.8.1 The Contractor shall prepare and submit to the Owner for the Owner's review and approval an estimated progress schedule for the Work. This schedule shall be in accordance with any general requirements included in the Specifications for this project.

### 3.9 RESPONSIBILITY FOR COMPLETION

3.9.1 The Contractor shall furnish such manpower, materials, facilities and equipment and shall work such hours, including night shifts, overtime operations and Sundays and holidays, as may be necessary to ensure the performance of the Work within the Milestone and Completion dates specified in the Owner-Contractor Agreement.

3.9.2 If the actions taken by the Contractor are not satisfactory, the Design Consultant or Owner may direct the Contractor to take any and all actions necessary to ensure completion within the required Milestone and Completion dates, without additional cost to the Owner. In such event, the Contractor shall continue to assume responsibility for his performance and for completion within the required dates.

### 3.10 DOCUMENTS AND SAMPLES AT THE SITE

3.10.1 The Contractor shall maintain at the site for the Owner 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 approved Shop Drawings, Product Data and Samples. These shall be delivered to the Owner upon completion of the Work.

### 3.11 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

3.11.1 The Contractor shall review, approve and submit, with reasonable promptness and in such sequence as to cause no delay in the Work or in the work of the Owner or any separate contractor, all Shop Drawings, Product Data, Manuals and Samples required by the Contract Documents.

3.11.2 Do not order materials until receipt of written approval. Furnish materials equal in every respect to approved samples.

3.11.3 By approving and submitting Shop Drawings, Product Data, Manuals and Samples, the Contractor represents that he has determined and verified all materials, field measurements, and field construction criteria related thereto, and that he has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. The Contractor shall adhere to any supplementary processing and scheduling instructions pertaining to Shop Drawings, which may be issued by the Design Consultant.

3.11.4 The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Design Consultant's review of Shop Drawings, Product Data, Samples or Manuals under unless the Contractor has specifically informed the Design Consultant in writing of such deviation at the time of submission and the Design Consultant has given written approval to the specific deviation. The Contractor shall not be relieved from responsibility for errors or omissions in the Shop Drawings, Product Data, Samples,

or Manuals by the Design Consultant's review thereof.

3.11.5 The Contractor shall make corrections required by the Design Consultant and shall resubmit the required number of corrected copies of Shop Drawings or new Product Data or Samples. The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data or Samples, to revisions other than those requested by the Design Consultant on previous submittals. Resubmittals necessitated by required corrections due to Contractor's errors or omissions shall not be cause for extension of Contract Time, and any costs associated with the processing of these resubmittals shall be paid by the Contractor.

3.11.6 No portion of the Work requiring submission of Shop Drawings, Product Data, Samples or Manuals shall be commenced until the submittal has been approved by the Design Consultant. All such portions of the Work shall be in accordance with approved submittals.

### 3.12 EQUAL PRODUCTS AND SUBSTITUTIONS

3.12.1 All materials, supplies and articles furnished under this Contract shall, whenever specified and otherwise practicable, be the standard products of recognized, reputable manufacturers. Unless otherwise specifically provided in the Contract Documents, the naming of a certain brand, make, manufacturer or article, device, product, material, fixture or type of construction shall convey the general style, type, character and standard of quality of the article desired and shall not be construed as limiting competition. The Contractor, in such cases, may with Design Consultant and Owner approval, use any brand, make, manufacturer, article, device, product, material, fixture, form or type of construction which in the judgment of the Design Consultant is equal to that specified. An item may be considered equal to the item so named or described if, in the opinion of the Owner and Design Consultant (1) it is at least equal in quality, durability, appearance, strength, and design; (2) it will perform at least equally the specific function imposed by the general design for the work being contracted for or the material being purchased; and (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the specifications. Approval by the Owner and Design Consultant will be granted based upon considerations of quality, workmanship, economy of operation, suitability for the purpose intended, and acceptability for use on the Project.

3.12.2 Contractor must provide evidence that proposed substitution does not require revisions to the Contract Documents, that is consistent with Contract Documents, and will produce the indicated results, and is comparable with other portions of the Work. Contractor must provide a detailed comparison of significant qualities or proposed substitution with those of the Work specified, including but not limited to the following significant qualities: performance, weight, size, durability, visual effect, sustainable design features, warranties, and any specific features and requirements indicated in Contract Documents. An annotated copy of applicable Specification section and point-by-point comparison between specified product and the proposed substitution describing each point of compliance, non-compliance, and variance between the specified and proposed product shall be provided.

### 3.13 USE OF SITE

3.13.1 The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, easements, right-of-way agreements and the Contract Documents. The Contractor shall not unreasonably encumber the site, in the opinion of the Owner, with any materials, equipment or trailers nor shall he block the entrances or otherwise prevent reasonable access to the site, other working and parking areas, completed portions of the Work and/or properties, storage areas, areas of other facilities that are adjacent to the worksite. If the Contractor fails or refuses to move said material, equipment or trailers within 24 hours of notification by the Owner, to so do, the Owner shall have the right, without further notice, to remove, at the Contractor's expense, any material, equipment and/or trailers which the Owner deems are in violation of this paragraph.

### 3.14 CUTTING AND PATCHING OF WORK

3.14.1 The Contractor shall not damage or endanger any portion of the Work or the work of the Owner or any separate contractors by cutting, patching or otherwise altering any work, or by excavation.

- 3.14.2 Existing structures and facilities including but not limited to building, utilities, topography, streets, curbs, walks, etc., that are damaged or removed due to required excavations or other construction work, shall be patched, repaired or replaced by the Contractor to satisfaction of the Design Consultant and the Owner of such structures and facilities and authorities having jurisdiction.
- 3.15 CLEANING UP
- 3.15.1 The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. If the Contractor fails to clean up during or at the completion of the Work, the Owner may do so and the cost thereof shall be charged to the Contractor.
- 3.16 INDEMNIFICATION
- 3.16.1 To the fullest extent permitted by law, the Contractor shall, at his sole cost and expense, indemnify, defend, and hold harmless the Owner and the Design Consultant and their agents, representatives, and employees from and against all claims, actions, judgments, costs, liabilities, penalties, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or caused by any negligent act, error, omission or breach of this Agreement by the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. The above obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity, which would otherwise exist as to any party or person, described in this Paragraph 3.16. The parties agree that this indemnification clause is an "evidence of indebtedness" for purpose of N.C. Gen. Stat. § 6-21.2. The parties also specifically acknowledge that the Owner is a public body and it is the intent of the parties that the Owner not incur any expenses when the Contractor is solely responsible for the claims. Contractor's indemnity obligations to Owner in the Contract Documents shall survive the expiration or termination of the Contract Documents.
- 3.16.2 In any and all claims against the Owner or the Design Consultant or any of their agents, representatives, or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph 3.16 shall not be limited in any way by Contractor's insurance coverage required herein.
- 3.16.3 No provision of this Paragraph 3.16 shall give rise to any duties on the part of the Design Consultant or the Owner, or any of their agents, representatives, or employees.
- 3.18 CONDITIONS AFFECTING THE WORK
- 3.18.1 The Contractor shall be responsible for taking all steps necessary to ascertain the nature and location of the Work and the general and local conditions, which can affect the Work or the cost thereof. The Owner assumes no responsibility for any understanding or representation about conditions affecting the Work made by any of his officers, employees, representatives, or agents prior to the execution of the Contract, unless such understandings or representations are expressly stated in the Contract Documents.
- 3.19 MISCELLANEOUS.
- 3.19.1 The Contractor shall provide documentation acceptable to the Owner showing the amount of MBE participation (including a complete list of all subcontractors and their final subcontract amounts) and sales tax paid by the Contractor and its subcontractors for materials purchased for Projects completed under this contract. The Contractor agrees to comply with the all of the Owner's policies at all times that the Contractor, its subcontractors and employees are on the Owner's property. The Contractor acknowledges that the Owner's policies can be accessed and viewed at the Owner's website ([www.bcswan.net](http://www.bcswan.net)) . The Contractor shall comply with the Owner's site or school building access procedures when working on any existing school campus.
- 3.20 APPLICABLE LAWS.
- 3.20.1 This Contract and the relationship of the parties shall be governed by the laws of the state of North Carolina.
- 3.20.2 Contractor shall comply with all applicable laws and regulations in providing services under this Contract. Contractor shall not employ any individuals to provide services to the Owner who are not authorized by federal law to work in the United States. The Contractor represents that it is aware of and in compliance with the Immigration Reform and Control Act and North Carolina law (Article 2 of Chapter 64 of the North

Carolina General Statutes) requiring use of the E-Verify system. The Contractor further warrants that it will use the E-Verify system to verify employment eligibility of all its employees throughout the term of this Contract, and that it will remain in compliance with all I-9 requirements throughout the term of this Contract. The Contractor shall also ensure that any subcontractors use the E-Verify system at all times while providing subcontracted services in connection with this Contract. Contractor is responsible for providing affordable health care coverage to all of its full-time employees providing services to the school system. The definitions of “affordable coverage” and “full-time employee” are governed by the Affordable Care Act and accompanying IRS and Treasury Department regulations.

- 3.20.3 The Contractor also acknowledges that G.S. § 14-208.18 prohibits anyone required to register as a sex offender under Article 27A of Chapter 14 of the General Statutes from knowingly being on the premises of any school. The Contractor shall conduct or arrange to have conducted, at its own expense, sexual offender registry checks on each of its employees, agents, ownership personnel, or contractors (“contractual personnel”) who will engage in any service on or delivery of goods to school system property or at a school-system sponsored event, except checks shall not be required for individuals who are solely delivering or picking up equipment, materials, or supplies at: (1) the administrative office or loading dock of a school; (2) non-school sites; (3) schools closed for renovation prior to substantial completion; or (4) new school construction sites prior to substantial completion. The checks shall include at a minimum checks of the State Sex Offender and Public Protection Registration Program, the State Sexually Violent Predator Registration Program, and the National Sex Offender Registry (“the Registries”). For the Contractor’s convenience only, all of the required registry checks may be completed at no cost by accessing the United States Department of Justice Sex Offender Public Website at <http://www.nsopw.gov/>. The Contractor shall provide certification on the Sexual Offender Registry Check Certification Form (attached as Appendix C) that the registry checks were conducted on each of its contractual personnel providing services or delivering goods under this Agreement prior to the commencement of such services or the delivery of such goods. With each pay application, the Contractor shall provide an updated list of all Project subcontractors, identifying the date the subcontractor is anticipated to first be on the site, and the status of receipt of the Completed Sexual Offender Registry Check Certification Form from each subcontractor. The Contractor shall conduct a current initial check of the registries (a check done more than 30 days prior to the date of this Agreement shall not satisfy this contractual obligation). In addition, the Contractor agrees to conduct the registry checks and provide a supplemental certification form before any additional contractual personnel are used to deliver goods or provide services pursuant to this Agreement. The Contractor further agrees to conduct annual registry checks of all contractual personnel and provide annual certifications at each anniversary date of this Agreement. The Contractor shall not assign any individual to deliver goods or provide services pursuant to this Agreement if said individual appears on any of the listed registries. The Contractor agrees that it will maintain all records and documents necessary to demonstrate that it has conducted a thorough check of the registries as to each contractual personnel, and agrees to provide such records and documents to the Owner upon request. The Contractor specifically acknowledges that the Owner retains the right to audit these records to ensure compliance with this section at any time in the Owner’s sole discretion. Failure to comply with the terms of this provision shall be deemed a material breach of the Agreement. In addition, the Owner may conduct additional criminal records checks at the Owner’s expense. If the Owner exercises this right to conduct additional criminal records checks, the Contractor agrees to provide within seven (7) days of request the full name, date of birth, state of residency for the past ten years, and any additional information requested by the Owner for all contractual personnel who may deliver goods or perform services under this Agreement. The Contractor further agrees that it has an ongoing obligation to provide the Owner with the name of any new contractual personnel who may deliver goods or provide services under the Agreement. The Owner reserves the right to prohibit any contractual personnel of the Contractor from delivering goods or providing services under this Agreement if the Owner determines, in its sole discretion, that such contractual personnel may pose a threat to the safety or well-being of students, school personnel or others.
- 3.20.4 Anti-Nepotism. Contractor warrants that, to the best of its knowledge and in the exercise of due diligence, none of its corporate officers, directors, or trustees and none of its employees who will directly provide services under this Agreement are immediate family members of any member of the Board of Education or of any principal or central office staff administrator employed by the Board. For purposes of this provision, “immediate family” means spouse, parent, child, brother, sister, grandparent, or grandchild, and includes step, half, and in-law relationships. Should Contractor become aware of any family relationship covered by this provision or should such a family relationship arise at any time during the term of this Agreement, Contractor shall immediately disclose the family relationship in writing to the Superintendent of the Schools. Unless formally waived by the

Board, the existence of a family relationship covered by this Agreement is grounds for immediate termination by Owner without further financial liability to Contractor.

3.20.5 Restricted Companies Lists. Provider represents that as of the date of this Contract, Provider is not included on the Final Divestment List created by the North Carolina State Treasurer pursuant to N.C. Gen. Stat. § 147-86.58. Provider also represents that as of the date of this Contract, Provider is not included on the list of restricted companies determined to be engaged in a boycott of Israel created by the North Carolina State Treasurer pursuant to N.C. Gen. Stat. § 147-86.81.

### 3.21 COMPLIANCE WITH BOARD POLICIES AND PROCEDURES

The Contractor acknowledges that Board policies are available for review at the Owner's website and agrees to comply with the policies. The Contractor also agrees to comply with the following provisions:

3.21.1 The Contractor, its Subcontractors and employees shall not possess or carry, whether openly or concealed, any gun, rifle, pistol, or explosive on any property owned by the Owner. This includes firearms locked in containers, vehicles or firearm racks within vehicles. The Contractor, its Subcontractors and employees shall not cause, encourage or aid a minor, who is less than 18 years old to possess or carry, whether openly or concealed, any weapons on any property owned by the Owner.

3.21.2 The Contractor, its Subcontractors and employees, are prohibited from profane, lewd, obscene or offensive conduct or language, including engaging in sexual harassment.

3.21.3 The Contractor and its Subcontractors shall not manufacture, transmit, conspire to transmit, possess, use or be under the influence of any alcoholic or other intoxicating beverage, narcotic drug, hallucinogenic drug, amphetamine, barbiturate, marijuana or anabolic steroids, or possess, use, transmit or conspire to transmit drug paraphernalia on any property owned by the Owner.

3.21.4 The Contractor and its Subcontractors may not at any time use or display tobacco or nicotine-containing products, including but not limited to electronic cigarettes (e-cigarettes), on school premises, both indoor and outdoor. The prohibition of the display of tobacco or nicotine products shall not extend to a display that has a legitimate instructional or pedagogical purpose. For purposes of this Contract, "tobacco product" is defined to include cigarettes, cigars, blunts, bidis, pipes, chewing tobacco, snuff, and any other items containing or reasonably resembling tobacco, tobacco products, or any facsimile thereof. "Tobacco use" includes smoking, chewing, dipping, or any other use of tobacco products.

3.21.5 The Contractor, its Subcontractors and employees shall not solicit from or sell to students or staff within the Owner's facilities or campuses, and shall not give gifts of any value to school system employees.

3.21.6 Operators of all commercial vehicles on any property owned by the Owner shall be subject to post-accident, random, reasonable suspicion and follow-up testing for drugs and alcohol.

3.21.7 The Contractor, its Subcontractors and employees are prohibited from using access to the site pursuant to this Agreement as a means to date, court, or enter into a romantic or sexual relationship with any student enrolled in the School System. The Contractor agrees to indemnify the Owner for claims against the Owner resulting from relationships which have occurred or may occur between a student and an employee of the Contractor or Subcontractor.

### 3.22 MINORITY AND HISTORICALLY UNDERUTILIZED BUSINESS

If the Contract Sum is \$300,000 or greater, the Contractor shall make a good faith effort to utilize minority and Historically Underutilized Businesses (HUBs) as defined and required in N.C. Gen. Stat. 143-128.2 to - 128.4. The Contractor shall identify in the list of its Subcontractors, those Subcontractors that are (HUBs) and indicate the portion of the Work that each Subcontractor will perform. If during the duration of the Project, the Contractor effects a substitution for any Subcontractor, or if additional subcontract opportunities become available, the Contractor shall make a good faith effort to utilize HUBs. The Contractor shall submit with each Application for Payment a list of those HUBs whose work is included in the application and the amount due

each. Failure or refusal of the Contractor to submit the required information on HUBs shall be grounds to withhold payment.

### END OF ARTICLE 3

## **ARTICLE 4**

### **SUBCONTRACTORS**

#### 4.1 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

4.1.1 The Contractor, in compliance with the requirements of the Contract Documents, shall furnish in writing to the Owner the names of the persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the Work. The Owner will promptly reply to the Contractor in writing stating whether or not the Owner, after due investigation, has reasonable objection to any such proposed person or entity.

4.1.2. The Contractor shall identify in the list of names of the Subcontractors proposed, those Subcontractors that are Minority Business Enterprises and the date each is planned to begin work on the project. If during the duration of the project, the Contractor effects a substitution for any Subcontractor, or if additional subcontract opportunities become available, the Contractor shall make a good faith effort to utilize Minority Business Enterprises. At the completion of the project, the Contractor shall provide documentation acceptable to the Owner showing the amount of MBE participation (including a complete list of all subcontractors and their final subcontract amounts).

### END OF ARTICLE 4

## **ARTICLE 5**

### **WORK BY OWNER OR BY SEPARATE CONTRACTORS**

#### 5.1 OWNER'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

5.1.1 The Owner reserves the right to perform work related to the Project with his own forces, and to award separate contracts in connection with other portions of the Project or other work on the site under these or similar Conditions of the Contract.

#### 5.2 MUTUAL RESPONSIBILITY

5.2.1 Should the Contractor cause damage to the work or property of the Owner or of any separate contractor on the Project, or to other work on the Site, or delay or interfere with the Owner's work on ongoing operations or facilities or adjacent facilities or said separate contractor's work, the Contractor shall be liable for the same; and, in the case of another contractor, the Contractor shall attempt to settle said claim with such other contractor prior to such other contractor's institution of litigation or other proceedings against the Contractor.

5.2.2 Should a separate contractor cause damage to the Work or to the property of the Contractor or cause delay or interference with the Contractor's performance of the Work, the Contractor shall present directly to said separate contractor any claims it may have as a result of such damage, delay or interference (with an information copy to the Owner) and shall attempt to settle its claim against said separate contractor prior to the institution of litigation or other proceedings against said separate contractor.

5.2.3. In no event shall the Contractor seek to recover from the Owner or the Design Consultant, and the Contractor hereby waives any claims against the Owner and Design Consultant relating to any costs, expenses (including,

but not limited to, attorney's fees) or damages or other losses incurred by the Contractor as a result of any damage to the Work or property of the Contractor or any delay or interference caused by any separate contractor.

### 5.3 COORDINATION OF THE WORK

5.3.1 By entering into this contract, Contractor acknowledges that there may be other contractors on the site whose work will be coordinated with that of his own. Contractor expressly warrants and guarantees that he will cooperate with other contractors and will do nothing to delay, hinder or interfere with the work of other separate contractors, the Owner or Design Consultant. Contractor also expressly agrees that, in the event his work is hindered, delayed, interfered with or otherwise affected by a separate contractor, his sole remedy will be a direct action against the separate contractor as described in this Article 5. Contractor will have no remedy, and hereby expressly waives any remedy, against the Owner and/or the Design Consultant on account of delay, hindrance, interference or other event caused by a separate contractor.

## END OF ARTICLE 5

## **ARTICLE 6**

### **MISCELLANEOUS PROVISIONS**

#### 6.1 GOVERNING LAW

6.1.1 This contract shall be governed by the law of the State of North Carolina. The Contractor and Owner agree that county where the Project is located shall be the proper venue for any litigation arising out of this Agreement.

6.1.2 Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein. If through mistake or otherwise, any such provision is not inserted or is not correctly or fully inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

#### 6.2 CLAIMS AND DAMAGES

6.2.1 Should the Contractor or any of its Subcontractors suffer injury or damage to person or property because of any act or omission of the Owner or Design Consultant, or of any of their employees, agents or others for whose acts either is legally liable, the claim on behalf of the Contractor or its subcontractors shall be made in writing to the Owner within 10 days after the first observance of such injury or damage; otherwise, the Contractor shall have waived any and all rights he may have against the Owner or the Design Consultant, or their employees, representatives and agents. The Contractor shall indemnify, defend and hold the Owner harmless from any claim by a Subcontractor that is waived because it is not filed in strict conformance with this paragraph or any other provision of this Agreement regarding claims.

#### 6.4 RIGHTS AND REMEDIES

6.4.1 The duties and obligations of the Contractor imposed by the Contract Documents and the rights and remedies of the Owner available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

6.4.2 Except as may be specifically agreed in writing, the failure of the Owner or the Design Consultant to insist in any one or more instances upon the strict performance of any one or more of the provisions of this Contract, or to exercise any right herein contained or provided by law, shall not be construed as a waiver or relinquishment of the performance of such provisions or right(s) or of the right to subsequently demand such strict performance or exercise such right(s), and the rights shall continue unchanged and remain in full force and effect.

- 6.4.3 The Contractor agrees that he can be adequately compensated by money damages for any breach of this Contract which may be committed by the Owner and hereby agrees that no default, act, or omission of the Owner or the Design Consultant, except for failure to make progress payments as required by the Contract Documents, shall constitute a material breach of the Contract entitling the Contractor to cancel or rescind the provisions of this Contract or (unless the Owner shall so consent or direct in writing) to suspend or abandon performance of all or any part of the Work. The Contractor hereby waives any and all rights and remedies to which he might otherwise be or become entitled, save only his right to money damages.
- 6.4.4 Contractor and Owner acknowledge that the Contract Documents shall not be construed against Owner due to the fact that they may have been drafted by Owner. For purposes of construing the Contract Documents, both Contractor and Owner shall be considered to have jointly drafted the Contract Documents.
- 6.4.5 In the event that Owner incurs attorney's fees or litigation expenses in connection with enforcing or protecting its rights under the Contract Documents or defending any claim or lawsuit brought against it arising out of the Work or the Contract Documents, Contractor shall reimburse Owner for such reasonable attorney's fees and expenses.
- 6.5 TESTS
- 6.5.1 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested, or approved, the Contractor shall give the Owner timely notice of its readiness so the Design Consultant and the Owner may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests or approvals conducted by public authorities. Unless otherwise provided, the Owner shall bear all costs of other inspections, tests or approvals, except the Contractor shall be responsible for the cost of any reinspection, including the rescheduling of an inspection requested by the Contractor prior to proper the completion of the work to be inspection.
- 6.5.2 Unless otherwise stipulated in other Contract Documents, the Contractor shall pay for all utilities required for testing of installed equipment of all of his work and work of each Subcontractor. Boiler fuel other than gas shall be provided by Subcontractor furnishing boilers. Labor and supervision required for making such tests shall be provided at no additional cost to the Owner.
- 6.5.3 If the Design Consultant or the Owner determines that any Work requires special inspection, testing, or approval which Subparagraph 6.5.1 does not include, the Owner will instruct the Contractor to order such special inspection, testing or approval, and the Contractor shall give notice as provided in Subparagraph 6.5.1. If such special inspection or testing reveals a failure of the Work to comply (1) with the requirements of the Contract Documents, or (2) with respect to the performance of the Work, with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, the Contractor shall bear all costs thereof, including compensation for the Design Consultant's and Owner's additional construction management expenses made necessary by such failure.
- 6.6 UNENFORCEABILITY OF ANY PROVISION
- 6.6.1 If any provision of this Contract is held as a matter of law to be unenforceable or unconscionable, the remainder of the Contract shall be enforceable without such provision.
- 6.7 ATTORNEYS' FEES AND OTHER EXPENSES
- 6.7.1 The Contractor hereby agrees that he will not submit, assert, litigate or otherwise pursue any frivolous or unsubstantiated claims or claims he has specifically waived under the terms of the Contract Documents. In the event that the Contractor's or its Subcontractor's claims, or any separate item of a claim, is without substantial justification, the Contractor shall reimburse the Owner or Design Consultant for all costs and expenses associated with defending such claim or separate item, including but not limited to, attorneys' fees, audit costs, accountants' fees, expert witness' fees, additional Design Consultant expenses, additional construction

management expenses, or services and any other consultant costs.

- 6.7.2 If the Contractor breaches any obligation under the Contract Documents, the Contractor shall reimburse the Owner and Design Consultant for all costs and expenses incurred by the Owner relating to such breach, including but not limited to attorneys' fees, audit costs, accountants' fees, expert witness' fees, additional Design Consultant expenses, additional construction management expenses, and any other consultant costs.
- 6.7.3 If the Owner or Design Consultant prevails in a claim brought against the Contractor, including but not limited to, claims for fraud or misrepresentation, overpayment, defective work, delay damages, and recovery of termination expenses, the Contractor shall reimburse the Owner and Design Consultant for all costs and expenses incurred by them relating to such claim, including but not limited to attorneys' fees, audit costs, accountants' fees, expert witness' fees, additional Design Consultant expenses, additional construction management expenses, and any other consultant costs.

## END OF ARTICLE 6

## **ARTICLE 7**

### **TIME**

#### 7.1 DEFINITIONS

- 7.1.1 Unless otherwise provided, the Contract Time is the period of time allotted in the Contract Documents for Substantial and Final Completion of the Work, as defined in Subparagraph 7.1.3 and 7.1.4, including any allowances and alternates. The Contractor shall complete his Work within Contract Time, unless the Contract Time is modified.
- 7.1.2 The date of commencement of the Work is the date established in a notice to proceed. If there is no notice to proceed, it shall be the date of the Owner-Contractor Agreement or such other date as may be established therein. The Contractor shall not commence Work or store materials or equipment on site until written Notice to Proceed is issued or until the Contractor otherwise receives the Owner's written consent.

#### 7.2 DELAYS AND EXTENSIONS OF TIME

- 7.2.1 The time during which the Contractor or any of its subcontractors delayed in the performance of the Work by the acts or omissions of the Owner, Design Consultant or their employees or agents, acts of God, unusually severe and abnormal climatic conditions, fires, floods, epidemics, quarantine restrictions, strikes, riots, civil commotions or freight embargoes, or other conditions beyond the Contractor's or its subcontractors' control and which the Contractor or its subcontractors could not reasonably have foreseen and provided against, shall be added to the time for completion of the Work (i.e., the Contract Time) stated in the Owner-Contractor Agreement; provided, however, that no claim by the Contractor for an extension of time for delays will be considered unless made in strict compliance with the requirements of this Article and other provisions of the Contract Documents.
- 7.2.1.1 For excessive inclement weather, the Contract Time will not be extended due to reasonably anticipated inclement weather or for delays in the aftermath of inclement weather, reasonably anticipated or excessive. The time for performance of this Contract, as stated in the Contract Documents, includes an allowance for calendar days which may not be available for construction out-of-doors; for the purposes of this Contract, the Contractor agrees that the number of calendar days per month based on a five-year average shall be considered reasonably anticipated inclement weather and planned for in the construction schedule per the Contract. Unless the Contractor can substantiate to the satisfaction of the Owner that there was greater than the reasonably anticipated inclement weather considering the time from the notice-to-proceed until the building is enclosed using data from the national weather service station at ILM Airport or a weather station acceptable to the Owner and that such alleged greater than reasonably anticipated inclement weather actually delayed the Work or

portions thereof which had an effect upon the Contract Time, the Contractor shall not be entitled to an extension of time.

Also the Contractor agrees that the calculation of the number of excessive inclement weather days shall be the number of days in excess of the five-year average for each month, in which precipitation exceeded one tenth (.10) inch, or in which the highest temperature was 32 degrees F or less as recorded at the approved weather station. Rain days from hurricanes and tropical storms not causing damage in in the county where the Project is located shall be deemed inclement weather days.

If the total accumulated number of calendar days lost to excessive inclement weather, from the notice-to-proceed until the building is enclosed, exceeds the total accumulated number to be reasonably anticipated for the same period from the table above, time for completion will be extended by the number of calendar days needed to include the excess number of calendar days lost. No extension of time will be made for days due to excessive inclement weather occurring after the building is enclosed or for contracts that do not include work out of doors that is not on the critical path. For the purpose of this Contract, the term "enclosed" is defined to mean when the building is sufficiently roofed and sealed, either temporarily or permanently, to permit the structure to be heated and the plastering and dry-wall trades to work. The Design Consultant shall determine when the structure is "enclosed". Upon the request of either party, the Design Consultant shall issue a letter certifying to the Owner, with a copy to the Contractor, stating the date the building became enclosed. No change in Contract Sum will be authorized because of adjustment of Contract time due to excessive inclement weather.

- 7.2.2 Should a time extension be granted for Substantial Completion the date for Final Completion shall be appropriately adjusted unless specifically stated otherwise.
- 7.2.3 Neither the Owner nor the Design Consultant shall be obligated or liable to the Contractor or its Subcontractors for, and the Contractor hereby expressly waives any claims against the Owner and the Design Consultant on account of any indirect or direct damages, costs or expenses of any nature which the Contractor, its Subcontractors, or Sub-subcontractors or any other person may incur as a result of any delays, interferences, changes in sequence or the like, which are reasonable, foreseeable, contemplated, or avoidable by Contractor, and it is understood and agreed that the Contractor's sole and exclusive remedy in any such events shall be an extension of the Contract Time in accordance with the Contract Documents, unless the delays, interferences, changes in sequence or the like arise solely from or out of any act or omission of the Owner or the Design Consultant, or their agents, employees, consultants or independent. The Contractor shall not be entitled to any damages or extensions of time pursuant to this section for concurrent delays for which the Contractor is at least partially responsible.
- 7.2.4 Subject to other provisions of the Contract Documents, the Contractor may be entitled to an extension of the Contract Time (but no increase in the Contract Sum) for delays arising from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, his Subcontractors or suppliers, unless caused solely by the Owner or Design Consultant
- 7.2.5 The Contractor and its subcontractors shall not be entitled to and hereby expressly waives any extension of time resulting from any condition or cause unless said claim for extensions of time is made in writing to the Owner within ten (10) days of the first instance of delay.

END OF ARTICLE 7

**ARTICLE 8**

**PAYMENTS AND COMPLETION**

8.1 SCHEDULE OF VALUES

8.1.1 Before the first Application for Payment, the Contractor shall submit to the Owner a schedule of values allocated to the various portions of the Work.

## 8.2 APPLICATIONS FOR PAYMENT

8.2.1 Prior to the date for each progress payment established in the Owner-Contractor Agreement, the Contractor, shall submit to the Owner an itemized Application for Payment including a completed Contractor's Sales Tax Report (attached hereto as Appendix A) for all items provided by the Contractor or any Subcontractors included in the application. The Contractor shall also certify that he has paid all due and payable amounts for which previous certificates for payment were issued and payments received from the Owner and that the work for which payment is requested has been completed.

8.2.2 The Owner will retain funds from each progress payment to the maximum extent allowed by N.C. General Statute 143-134.1 until the Work is finally completed and accepted, whether or not the Owner has occupied any or all of the Project before such time. If a reduction in retainage has been made or the Owner stops withholding retainage for any reason, the Owner may increase or commence the retainage as authorized by N.C. Gen. Stat. 143-134.1.

8.2.3 Owner will be under no obligation to make payment to the Contractor on account of materials or equipment not incorporated in the Work. Materials once paid for by the Owner become the property of the Owner and may not be removed from the work site without the Owner's written permission.

8.2.4 The Contractor warrants that title to all Work, materials and equipment covered by an Application for Payment will pass to the Owner either by incorporation in the construction or upon the receipt of payment by the Contractor, whichever occurs first, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to in this Article 8 as "liens".

8.2.5 All invoices shall show the following:

- .1 Total amount of contract
- .2 Amount of change orders
- .3 Total value of completed work
- .4 Amount retained by Owner
- .5 Amount due Contractor

## 8.3 CERTIFICATES FOR PAYMENT

8.3.1 By signing a Certificate for Payment, the Design Consultant shall not thereby be deemed to represent that it has made exhaustive or continuous on-site inspections to check the quality or quantity of the Work or that it has reviewed the construction means, methods, techniques, sequences, or procedures, or that it has made any examination to ascertain how or for what purpose the Contractor has used the moneys previously paid on account of the Contract Sum.

## 8.4 PROGRESS PAYMENTS

8.4.1 The Contractor shall promptly pay each Subcontractor (including suppliers, laborers, and material-men) performing labor or furnishing material for the Work, upon receipt of payment from the Owner.

8.4.2 No Certificate for a progress payment, nor any progress payment, nor any partial or entire use or occupancy of the Project by the Owner, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

8.4.3 The Contractor shall not submit more than one pay application during any 30-day period.

## 8.5 PAYMENTS WITHHELD

8.5.1 The Design Consultant may decline to certify payment and may withhold their Certificate in whole or in part, to

the extent the Design Consultant deems necessary to reasonably protect the Owner from loss associated with unsatisfactory job progress, defective construction, disputed work, claims or any other similar issue. The Design Consultant may also decline to certify payment if the Contractor fails to provide Subcontractor information regarding the use of HUBs and/or sexual registry checks. If the Design Consultant is unable to make representations to the Owner and to certify payment in the amount of the Application, it will notify the Contractor as provided herein. The Design Consultant may also decline to certify payment because of subsequently discovered evidence or subsequent observations that may nullify the whole or any part of any Certificate for Payment previously issued to such extent as may be necessary in its opinion to protect the Owner from loss.

## 8.6 FAILURE OF PAYMENT

8.6.1 Payments due and unpaid under the Contract Documents shall not bear interest.

## 8.7 SUBSTANTIAL COMPLETION

8.7.1 The Date of Substantial Completion of the Work or designated portion thereof is the Date certified by the Design Consultant and Owner when the Work or a designated portion thereof is sufficiently complete, in accordance with the Contract Documents, so Owner can fully occupy and utilize the Work for the use for which it is intended, with all of the Project's parts and systems operable as required by the Contract Documents. Only incidental corrective work and any final cleaning beyond that needed for Owner's full use may remain for Final Completion. The Contractor shall be solely responsible for the cost to repair or replace any work damaged or destroyed prior to the Date of Substantial Completion.

8.7.2 When the Design Consultant and the Owner on the basis of an inspection jointly determine that the Work or designated portion thereof is substantially complete, they will then prepare a Certificate of Substantial Completion which shall establish the Date of Substantial Completion, shall state the responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. Warranties required by the Contract Documents shall commence on the Date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Contractor shall provide operation & maintenance manuals, and operation training to the Owner as required by the Contract Documents prior to Substantial Completion. The Owner's occupancy of incomplete work shall not alter the Contractor's responsibilities pursuant to this section.

8.7.3 The acceptance of Substantial Completion payment shall constitute a waiver of all claims by the Contractor and its Subcontractors except those previously made in writing and identified by the Contractor as unsettled at the time the Contractor submits the Application for Payment for Substantial Completion, and except for the retainage sums due at final acceptance. The Contractor shall indemnify and hold the Owner harmless against any claims by its Subcontractors that are waived because they were not made in writing and identified by the Contractor as unsettled when the Contractor submitted the Application for Payment for Substantial Completion.

8.7.4 The issuance of the Certificate of Substantial Completion does not indicate final acceptance of the project by the Owner, and the Contractor is not relieved of any responsibility for the project except as specifically stated in the Certificate of Substantial Completion.

8.7.5 There will be two inspections by the Design Consultant at Substantial Completion:

- .1 To generate a list of items to be completed or corrected before Owner takes possession of the Work.
- .2 To check that the list of items has been completed before issuing Final Payment.

Any additional inspections by the Design Consultant requested by Contractor to complete the Punch List shall result in money being withheld from the Final Payment to cover the cost of these additional inspections.

## 8.8 FINAL COMPLETION AND FINAL PAYMENT

- 8.8.1 The date of Final Completion of the work is the date certified by the Design Consultant and the Owner when the Work is totally complete, to include punch list work, in accordance with the Contract Documents and the Owner may fully occupy and utilize the work for the use for which it is intended. The issuance of a temporary or final certificate of occupancy shall not, in itself, constitute Final Completion.
- 8.8.1.1 When the Design Consultant and the Owner find the Work acceptable under the Contract Documents and the Contract fully performed, they will approve a final Certificate of Payment stating that to the best of their knowledge, information and belief, and on the basis of their observations and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor, and noted in said final Certificate, is due and payable, except for an amount mutually agreed upon for any work remaining incomplete or uncorrected for which the Owner is entitled a credit under the Contract Documents. If the Design Consultant and the Owner find the Work to be incomplete or unacceptable, the costs of reinspections shall be paid by the Contractor.
- 8.8.2 Final Payment shall not become due until the Contractor provides to the Design Consultant and Owner: three (3) copies of any of the following required:
- .1 Final Change Order
  - .2 Final Application for Payment
  - .3 Consent of Surety to Final Payment - AIA G707(if applicable)
  - .4 Contractor's Affidavit of Release of Liens - AIA G706A
  - .5 Contractor's Affidavit of Payment of Debts and Claims - AIA G706;
  - .6 Certificate of Occupancy (if applicable)
  - .7 Contractor's Warranty, notarized
  - .8 Warranty Summary Sheet with Original Warranties (if not included in O & M Manuals)
  - .9 Certification Letter from Contractor that no Asbestos-Containing Materials were used on the project
  - .10 Final List of Subcontractors (name, address, phone, email, fax nos.)
  - .11 Record Drawings (As-Built) - 1 set
  - .12 Operation and Maintenance Manuals - 3 sets
  - .13 Other project close-out submittals, as required by the Contract Documents.
- 8.8.3 Neither the final payment nor the remaining retained percentage shall become due until the Work is free and clear of any and all liens and the Contractor submits to the Owner:
- .1 an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or his property might in any way be responsible, have been paid or otherwise satisfied;
  - .2 if required by the Owner, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Owner; and
  - .3 As-built drawings, and other project closeout submittals, as required by the Owner.
- 8.8.4 The making of final payment shall constitute a waiver of all claims by the Owner against the Contractor except those arising from:
- .1 unsettled liens, and claims against the Owner or the Design Consultant, or their employees, agents, or representatives,
  - .2 faulty, defective or non-conforming Work discovered or appearing after Substantial or Final Completion,
  - .3 failure of the Work to comply with the requirements of the Contract Documents,

- .4 terms of any warranties contained in or required by the Contract Documents,
- .5 damages incurred by the Owner resulting from lawsuits brought against the Owner, the Design Consultant, or their agents, employees or representatives because of failures or actions on the part of the Contractor, his Subcontractors, Sub-subcontractors, or any of their employees, agents or representatives, or
- .6 fraud or bad faith committed by the Contractor or any subcontractor or supplier during performance of work but discovered by Owner after Final Payment.

8.8.5 The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final Application for Payment

## 8.9 LIQUIDATED DAMAGES

8.9.1 Should the Contractor fail to substantially complete the Work on or before the date stipulated for Substantial Completion (or such later date as may result from extension of time granted by Owner), he shall pay the Owner, as Substantial Completion liquidated damages the daily amount stated in the Supplementary Conditions for each consecutive calendar day that terms of the contract remain unfulfilled beyond the date allowed by the Contract, which sum is agreed upon as a reasonable and proper measure of damages which the Owner will sustain per day by failure of the Contractor to complete work within time as stipulated; it being recognized by the Owner and the Contractor that the injury to the Owner which could result from a failure of the Contractor to complete on schedule is uncertain and cannot be computed exactly. In no way shall costs for liquidated damages be construed as a penalty on the Contractor.

8.9.2 For each consecutive calendar day that the Work remains incomplete after the date established for Final Completion, the Contractor shall pay or Owner will retain the daily amount stated in the Supplementary Conditions as Final Completion Liquidated Damages from the compensation otherwise to be paid to the Contractor. This amount is the minimum measure of damages the Owner will sustain due to the delay in the completion of all remedial work, the delay in the correction of the deficient work, the disruption to the school and the learning environment, the cost of contract management time and resources, administration time, and the inability to use the facilities fully. This amount is in addition to the liquidated damages prescribed above for Substantial Completion.

8.9.3 The amount of liquidated damages set forth in the corresponding Supplementary Conditions shall be assessed cumulatively. The items of cost included in the assessment of liquidated damages are as defined above. This provision for liquidated damages does not bar Owner's right to enforce other rights and remedies against Contractor, including but not limited to, specific performance or injunctive relief.

## 8.10 OWNER'S RIGHT TO OCCUPY INCOMPLETE WORK

8.10.1 Should the Project, or any portion thereof, be incomplete for Substantial or Final Completion at the scheduled date or dates, the Owner shall have the right to occupy any portion of the Project. In such an event, the Contractor shall not be entitled to any extra compensation on account of said occupancy by the Owner or by the Owner's normal full use of the Project, nor shall the Contractor interfere in any way with said normal full use of the Project. Further, in such an event, the Contractor shall not be entitled to any extra compensation on account of the Owner's occupancy and use of the Project, nor shall the Contractor be relieved of any responsibilities of the Contract including the required times of completion and property insurance coverage, unless specifically altered by the Owner in writing. Such occupancy by the Owner shall not, in itself, constitute Substantial or Final Completion.

## END OF ARTICLE 8

## **ARTICLE 9**

## INSURANCE AND BONDS

### 9.1.1 CONTRACTOR'S INSURANCE AND BONDS

The Contractor shall purchase and maintain in companies properly licensed by the Insurance Department of the State of North Carolina and acceptable to the Owner such insurance as will protect him, the Owner, and the Owner's agents, representatives, and employees from claims which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Such insurance shall include:

#### 9.1.1.1 Worker's Compensation including Occupational Disease and Employer's Liability Insurance

- .1 Statutory - Amount and coverage as required by State of North Carolina Worker's Compensation laws
- .2 Employer's Liability  
\$1,000,000 Each Accident  
\$1,000,000 Policy Limit  
\$1,000,000 Each Employee

#### 9.1.1.2 Commercial General Liability (Occurrence Form) - The Contractor shall provide during the life of this Contract such Commercial General Liability (Occurrence Form) Insurance as shall protect Contractor and any Subcontractor performing work under this Contract from claims for damages for Bodily Injury including accidental death, as well as from claims for Property Damage which may arise from operations under this Contract, whether such operations be by himself or by any Subcontractor or by anyone directly or indirectly employed by either of them. This insurance shall be on the Standard Insurance Services Office, Inc. (ISO) Commercial Liability Occurrence Form. The Contractor shall procure insurance coverage for direct operations, sublet work, elevators, **contractual liability** and completed operations with limits not less than those stated below:

A Combined Single Limit for Bodily Injury, Property Damage and Personal Injury of:

\$2,000,000	General Aggregate (except Products - Completed Operations) Limit
\$2,000,000	Products - Completed Operations Aggregate Limit
\$1,000,000	Personal and Advertising Injury Limit
\$1,000,000	Each Occurrence Limit

#### 9.1.1.3 Property Damages, including Broad Form Property Damage and Explosion, Collapse, Underground property damage coverages, and blasting, where necessary.

#### 9.1.1.4 Completed Operations Liability: Continuous coverage in force for one year after completion of Work.

#### 9.1.1.5 Commercial Automobile Insurance, including coverage for owned, non-owned and hired vehicles - with limits not less than a Combined Single Limit for Bodily Injury and Property Damage of \$1,000,000.

#### 9.1.1.6 Umbrella Liability Insurance: Policy to 'pay on behalf of the Insured' with Limits of Liability: \$1,000,000.

#### 9.2 Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled until at least thirty (30) days prior written notice has been given to the Owner. Failure to provide such notice shall not limit the liability of the Insurer, its agents or representatives.

#### 9.3 All insurance policies required in this Article, except Worker's Compensation and Commercial Automobile, shall name the Owner as additional named insured for the insurance.

#### 9.4 Contractor shall not commence work under this Contract until he has obtained all the insurance and bonds required under Article 9 of this Contract and until such insurance and bonds have been approved by the

Owner, nor shall Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been so obtained and approved. Approval of the insurance by Owner shall not relieve or decrease the liability of Contractor hereunder.

- 9.5 The Commercial General Liability and Workers Compensation Policies provided by Contractor shall have endorsements waiving subrogation against Owner.
- 9.6 PROPERTY INSURANCE. Contractor shall provide the following property insurance through at least Substantial Completion of the Project:
- 9.6.1 Unless stated otherwise in the Supplemental Conditions, Contractor shall purchase and at all times maintain such insurance as will protect Contractor, Owner, Subcontractors and Sub-subcontractors from loss or damage to Work or property in the course of construction, including all machinery, materials and supplies on the premises or in transit thereto and intended to become a part of the finished work until Final Completion. This insurance shall be in the form of 'Builder's Risk Covered Cause of Loss Form' to include, but not limited to, theft, collapse, earth movement and flood. Any deductible provision in such insurance shall not exceed \$5,000.00. Notwithstanding any such deductible provision, Contractor shall remain solely liable for the full amount of any item covered by such insurance.
- 9.6.2 If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion thereof, such occupancy or use shall not commence prior to a time mutually agreed to by Owner and Contractor, and to which the insurance company or companies providing the property insurance have consented by endorsement to the policy or policies. This insurance shall not be canceled or lapsed on account of such partial occupancy or use. Consent of Contractor and of the insurance company or companies to such occupancy or use shall not be unreasonably withheld.
- 9.7 Owner shall be under no obligation to review any Certificates of Insurance provided by Contractor, or to check or verify Contractor's compliance with any and all requirements regarding insurance imposed by the Contract Documents. Contractor is fully liable for the amounts and types of insurance required herein and is not excused should any policy or certificate of insurance provided by Contractor not comply with any and all requirements regarding insurance imposed by the Contract Documents.
- 9.8 All insurance companies providing the above insurance shall be licensed by the Insurance Department of the State of North Carolina and maintain a rating by AM Best or a similar rating company with a minimum of an "A-" rating.
- 9.9 PERFORMANCE AND PAYMENT BONDS
- "If required by law, or in the Supplemental Conditions or the Contract Documents, Contractor must provide performance and payment bonds each in the amount of the Contract Sum. Such bonds shall be on forms acceptable to Owner and issued by surety companies licensed to do business in North Carolina and having a rating of at least AM Best "A" rating. Contractor may, at its option, make deposit in the form of certified check with Owner in lieu of the performance and payment bonds in an amount equal to the Contract Sum for each such bond, for a total of 200% of the Contract Sum."
- 9.10 Risk of Loss: Contractor shall bear the risk of loss in the event that any of the Work is stolen, lost, damaged or destroyed prior to the Final Completion of the Work, the issuance of a final Certificate of Occupancy, and acceptance of the Work by the Owner. If any of the Work is stolen, lost, damaged, or destroyed prior to Final Completion, the issuance of a final Certificate of Occupancy, and acceptance of the Work by the Owner, due to any reason except the intentional or reckless acts of Owner or Owner's authorized agents, Contractor shall bear the full cost of repairing or replacing all such Work, including all equipment and materials. Contractor should purchase his own insurance to cover this risk if required by the Contract Documents or otherwise if the Contractor so chooses.

END OF ARTICLE 9

**ARTICLE 10**

**CHANGES IN THE WORK**

- 10.1 CHANGE ORDERS/CONSTRUCTION CHANGE DIRECTIVE
- 10.1.1 The Owner may, at any time, by written order designated or indicated to be a Change Order, make any change or modification in the Work or add to the Work within the general scope of the Contract.
- 10.1.2 A Change Order is a document executed pursuant to this Article when the Owner and Contractor agree to Changes in the Work, the Contract Sum, the Contract Time and any other change in the Contract by written agreement signed by Owner, Contractor and Design Consultant designated or indicated to be a Change Order. If the Contractor, subsequent to the issuance of a Construction Change Directive, agrees to its terms including any applicable adjustment to the Contract Sum and Contract Time, Contractor shall sign it and it shall become a Change Order.
- 10.1.3 A Construction Change Directive is a written order prepared by the Design Consultant and signed by the Owner and Design Consultant, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both.
- 10.2 OWNER DIRECTED CHANGES REQUIRING AN INCREASE IN CONTRACT SUM.
- 10.2.1 If the Change in the Work will result in an increase in the Contract Sum, the Owner shall have the right to require the performance thereof on a lump sum basis, a unit price basis or a time and material basis, all as hereinafter more particularly described (the right of the Owner as aforesaid shall apply with respect to each such Change in the Work).

If the Owner elects to have the Change in the Work performed on a lump sum basis, its election shall be based on a lump sum Proposal which shall be submitted by the Contractor to the Owner within seven (7) days of the Contractor's receipt of a request therefore (but the Owner's request for a lump sum Proposal shall not be deemed an election by the Owner to have the Change in the Work performed on a lump sum basis). The Contractor's Proposal shall be itemized and segregated by labor and materials for the various components of the Change in the Work (no aggregate labor or material total will be acceptable) and shall be accompanied by signed Proposals of any Subcontractors who will perform any portion of the Change in the Work and of any persons who will furnish materials or equipment for incorporation therein. The Proposal shall also include the Contractor's estimate of the time required to perform said changes. The Contractor shall provide any documentation that may be requested by the Owner or Design Consultant to support the change proposal, including but not limited to payroll records, insurance rates, material quotes, and rental quotes. The Change Proposal Forms attached as Appendix B shall be used to submit change proposals on the Project.

The portion of the Proposal relating to labor, whether by the Contractor's forces or the forces of any of its Subcontractors, may include reasonably anticipated gross wages of job site labor, including foremen, who will be directly involved in the Change in the Work (for such time as they will be so involved), plus payroll costs (including premium costs of overtime time, if overtime is anticipated, Social Security, Federal or State unemployment insurance taxes and fringe benefits required by collective bargaining agreements entered into by the Contractor or any such Subcontractor in connection with such labor) and up to fifteen percent (15%) of such anticipated gross wages, but not payroll costs, as overhead and profit for the Contractor or any such Subcontractor, as applicable (said overhead and profit to include all supervision except foremen). Payroll costs are limited to 39% of the net pay of the worker.

The portion of the Proposal relating to materials may include the reasonably anticipated direct costs to the

Contractor or to any of its Subcontractors of materials to be purchased for incorporation in the Change in the Work, plus transportation and applicable sales and use taxes and up to fifteen percent (15%) of said direct material costs as overhead and profit for the Contractor or any such Subcontractor (said overhead and profit to include all small tools), and may further include the Contractor's and any of its Subcontractor's reasonably anticipated rental costs in connection with the Change in the Work (either actual or discounted local published rates), plus up to eight percent (8%) thereof as overhead and profit for the Contractor or any such Subcontractors, as applicable. The Contractor shall provide an itemized breakdown of all transportation and shipping costs, including receipts documenting the expenses. Notwithstanding the above, overhead and profit shall not be applied to any sales tax paid for any purpose or to any transportation or shipping costs incurred by the Contractor or any subcontractor. If any of the items included in the lump sum Proposal are covered by unit prices contained in the Contract Documents, the Owner may, if it requires the Change in the Work to be performed on a lump sum basis, elect to use these unit prices in lieu of the similar items included in the lump sum Proposal, in which event an appropriate deduction will be made in the lump sum amount prior to the application of any allowed overhead and profit percentages. No overhead and profit shall be applied to any unit prices.

The lump sum Proposal may include up to eight percent (8%) of the amount which the Contractor will pay to any of its Subcontractors for Changes in the Work as overhead and profit for the Contractor. The Contractor shall not be reimbursed for the costs of the Subcontractors' Payment and Performance Bonds, as such bonding is not required by the Owner.

- 10.2.2 In the event that (1) the parties are unable to agree as to the reasonable cost and time to perform the Change in the Work based upon the Contractor's Proposal and the Owner does not elect to have the Change in the Work performed on a time and material basis, (2) the Contractor fails to submit his Proposal within the designated period, or (3) the Work needs to begin immediately, the Owner may choose to make a determination of the reasonable cost and time to perform the Change in the Work, based upon its own estimates, the Contractor's submission or a combination thereof. A Construction Change Directive shall be issued in this case for the amounts of cost and time determined by the Owner and shall become final and binding upon the Contractor, subject to Contractor's right to dispute such action in accordance with Paragraph 10.9. Owner has the right to direct by Construction Change Directive a Change in the Work, which is the subject of such Change Order. Failure of the parties to reach agreement regarding the cost and time of the performing the Construction Change Directive, shall not relieve the Contractor from performing the Change in the Work promptly and expeditiously.
- 10.2.2.1 The Owner reserves the right to reject the Contractor's Proposal for a Change in the Work and to elect to perform said Work using a Separate Contractor. Under such circumstances, all provisions of Article 6 shall be in force.
- 10.2.3 If the Owner elects to have the Change in the Work performed on a time and material basis or on a time and material basis with a not to exceed amount, the same shall be performed, whether by the Contractor's forces or the forces of any of its Subcontractors or Sub-subcontractors, at actual cost to the entity performing the Change in the Work (without any charge for administration, clerical expense, supervision or superintendence of any nature whatsoever, including foremen, or the cost, use or rental of tools or plant), plus fifteen percent (15%) thereof as the total overhead and profit (except that said fifteen percent (15%) shall not be applied against any payroll costs, as set forth in Paragraph 10.2.1.). If the Owner and Contractor agree upon a not to exceed amount, it shall be clearly identified in the Change Order or change proposal form and shall be the maximum amount paid by the Owner for the identified work. The Contractor shall submit to the Owner daily time and material tickets, on a daily basis to include the identification number assigned to the Change in the Work, the location and description of the Change in the Work, the classification of labor employed (and names and social security numbers), the materials used, the equipment rented (not tools) and such other evidence of cost as the Owner may require. The Owner may require authentication of all time and material tickets and invoices by persons designated by the Owner for such purpose. The failure of the Contractor to secure any required authentication shall, if the Owner elects to treat it as such, constitute a waiver by the Contractor of any Claim for the cost of that portion of the Change in the Work covered by a non-authenticated ticket or invoice; provided, however, that the authentication of any such ticket or invoice by the Owner shall not constitute an acknowledgment by

the Owner that the items thereon were reasonably required for the Change in the Work.

10.2.3.1 The Contractor may only bill for all or a portion of work performed on a time and material basis if the work has been completed, accepted and properly documented to the Owner and Design Consultant's satisfaction.

10.2.4 No overhead and profit will be paid by the Owner on account of a Change in the Work except as specifically provided in Section 10.2. Overhead and profit, as allowed under Section 10.2, shall be deemed to include all costs and expenses which the Contractor or any of its Subcontractors may incur in the performance of a Change in the Work and which are not otherwise specifically recoverable by them pursuant to Section 10.2.

### 10.3 CONTRACTOR NOTICE OF CHANGE

10.3.1 If the Contractor or any of its Subcontractors asserts that any event or occurrence has caused a change in or addition to the Work which change causes an increase or decrease in the Contractor's or its Subcontractors' cost or the time required for the performance of any part of the Work under the Contract, including Work not affected directly by the change, the Contractor shall, within ten (10) days of such event, give the Owner written notice as herein required. Said notice shall include the instructions or circumstances that are the basis of the claim and the Contractor's best estimate of the cost and time involved.

10.3.2 If the Contractor intends to assert a claim under this Article, he must, within ten (10) days after receipt of a written Change Directive under Subparagraph 10.2.1 above or the furnishing of a written notice under Subparagraph 10.3.1, submit to the Owner a written statement setting forth the specific nature and cost of such claim, unless this period is extended by the Owner. The statement of claim hereunder may be included in the notice under Subparagraph 10.3.1 above. The statement of claim shall include all direct, indirect and impact costs associated with the change, as well as the Contractor's estimate of the schedule impact of the change, if any. The Contractor and its subcontractors shall not be entitled to reimbursement for any claims that are not filed in strict conformance with this Article. The Contractor shall indemnify and hold the Owner harmless against any claims by Subcontractors that are waived because they are not filed in strict conformance with this Article.

10.3.3 If the parties are unable to agree to the reasonable cost and time to perform the Change, or are unable to agree as to whether a change occurred, the Owner shall make a unilateral determination as described in Article 10.2.2. The Contractor shall proceed pursuant to the provisions of that Article.

### 10.4 GENERAL PROVISIONS RELATED TO CHANGES

10.4.1 The Contractor shall not be entitled to any amount for indirect costs, damages or expenses of any nature, including, but not limited to, so-called "impact" costs, labor inefficiency, wage, material or other escalations beyond the prices upon which the proposal is based and to which the parties have agreed pursuant to the provisions of Article 10, and which the Contractor, its Subcontractors or Sub-subcontractors or any other person may incur as a result of delays, interferences, suspensions, changes in sequence or the like, for whatever cause, whether reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable, arising from the performance of any and all changes in the Work performed pursuant to this Article 10, unless the delay is caused solely by the Owner or its agent. It is understood and agreed that the Contractor's sole and exclusive remedy in such event shall be recovery of his direct costs as compensable hereunder and an extension of the Contract Time, but only in accordance with the provisions of the Contract Documents. The phrase "Owner or its agent" as used in this Agreement, does not include the Prime\_Contractors or their Subcontractors.

10.4.2 No claim by the Contractor hereunder shall be allowed if asserted after final payment under this Contract. No claim relating to or flowing from a particular change shall be allowed after execution of the Change Order relating to that change or commencement of the change by the Contractor.

### 10.5 CHANGES REQUIRING A DECREASE IN CONTRACT SUM.

10.5.1 If the Change in the Work will result in a decrease in the Contract Sum, the Owner may request a quotation by

the Contractor of the amount of such decrease for use in preparing a Change Order. The Contractor's quotation shall be forwarded to the Owner within ten (10) days of the Owner's request and, if acceptable to the Owner, shall be incorporated in the Change Order. If not acceptable, the parties shall make every reasonable effort to agree as to the amount of such decrease, which may be based on a lump sum properly itemized, on unit prices stated in the Contract Documents and/or on such other basis as the parties may mutually determine. If the parties are unable to so agree, the amount of such decrease shall be the total of the estimated reduction in actual cost of the Work, as determined by the Owner in its reasonable judgment, plus fifteen percent (15%) thereof as overhead and profit.

## 10.6 DISPUTES REGARDING CHANGES.

10.6.1 If any dispute should arise between the parties with respect to an increase or decrease in the Contract Sum or an expansion or contraction in the Contract Time as a result of a Change in the Work, the Contractor shall not suspend performance of a Change in the Work or the Work itself unless otherwise so ordered by the Owner in writing. The Owner shall, however, pay to the Contractor up to the Owner's reasonable estimated value of the Change in the Work, regardless of the dispute, if said Change in the Work results in an increase in the Contract Sum; and the Owner shall have the right to decrease the Contract Sum up to the Owner's reasonable estimated value of the Change in the Work, regardless of the dispute, if said Change in the Work results in a decrease in the Contract Sum.

## 10.7 MINOR CHANGES IN THE WORK

10.7.1 The Owner shall have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order, and shall be binding on the Owner and the Contractor. The Contractor shall carry out such written orders promptly.

10.7.2 The Contractor shall not perform any changes in the Work unless authorized in writing by the Design Consultant or Owner.

## 10.8 DIFFERING SITE CONDITIONS

10.8.1 Should the Contractor encounter subsurface and/or latent conditions at the site materially differing from those shown on the drawings or indicated in the specifications or differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this contract, he shall immediately give notice to the Owner of such conditions before they are disturbed. The Owner and the Design Consultant shall thereupon promptly investigate the conditions and if they find that they materially differ from those shown on the drawings or indicated in the specifications, they shall at once make such changes in the drawings and/or specifications as they may find necessary. Any increase or decrease of cost resulting from such changes shall be adjusted in the manner provided herein for adjustments as to extra and/or additional work and changes. However, neither the Owner nor the Design Consultant shall be liable or responsible for additional work, costs or changes to the work due to material differences between actual conditions and any geotechnical, soils and other reports, surveys and analyses made available for the Contractor's review.

## 10.9 CLAIMS AND DISPUTE RESOLUTION

10.9.1 Definition. A Claim is a demand or assertion by the Contractor seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question from the Contractor arising out of or relating to the Contract. Claims must be initiated by written notice. The responsibility to substantiate Claims shall rest with the Contractor.

10.9.2 Time Limits on Claims. Claims by Contractor must be initiated within 10 days occurrence of the event giving rise to such Claim or within 10 days after the Contractor first recognizes the condition giving rise to the Claim, whichever is later, but in no event subsequent to the Contractor's final payment application. Claims must be initiated by written notice to the Design Consultant (if there is one) and the other party.

- 10.9.3 Continuing Contract Performance. Pending final resolution of a Claim except as otherwise agreed in writing or as otherwise provided in the Contract Documents, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make undisputed payments in accordance with the Contract Documents.
- 10.9.4 Claims for Additional Cost. If the Contractor wishes to make Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property when the giving of such notice would increase the risk of injury or damage to persons or property.
- 10.9.5 Claims for Additional Time. If the Contractor wishes to make Claim for an extension of the dates set for Substantial or Final Completion, written notice as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary. Contractor bears the burden of proving it is entitled to an extension of time. Unless Contractor meets this burden, Liquidated Damages shall be assessed automatically.
- 10.9.6 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the relevant period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction.
- 10.9.7 Resolution of Claims and Disputes. Claims, including those alleging an error or omission by the Design Consultant, shall be referred initially to the Design Consultant for decision, if there is a Design Consultant with Contract Administration duties which include Claims resolution; otherwise, such Claims by Contractor shall initially be referred to the Owner. An initial decision by such Design Consultant (or Owner as applicable) shall be required as a condition precedent to mediation or litigation of all Claims by the Contractor arising prior to the date final payment is due, unless 30 days have passed after the Claim has been referred to the Design Consultant (or Owner as applicable) with no decision having been rendered. The Design Consultant (or Owner as applicable) will not decide disputes between the Contractor and persons or entities other than the Owner.
- 10.9.8 The Design Consultant (or Owner as applicable) will review Claims and within ten days of the receipt of the Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Design Consultant is unable to resolve the Claim if the Design Consultant lacks sufficient information to evaluate the merits of the Claim or if the Design Consultant concludes that, in the Design Consultant's sole discretion, it would be inappropriate for the Design Consultant to resolve the Claim.
- 10.9.9 Upon receipt of the response or supporting data, if any, the Design Consultant (or Owner as applicable) will either reject or approve the Claim in whole or in part.
- 10.9.10 The Design Consultant (or Owner as applicable) will approve or reject Claims by written decision, which shall state the reasons therefor and which shall notify the parties or any change in the Contract Sum or Contract Time, or both. The approval or rejection of a Claim by the Design Consultant (or Owner as applicable) shall be final and binding on the parties but subject to mediation and litigation.
- 10.9.11 When a written decision of the Design Consultant (or Owner as applicable) states that (1) the decision is final but subject to mediation and litigation and (2) a demand for mediation of a Claim (if required by Owner's Dispute Resolution Procedures) or the commencement of a lawsuit (if mediation is not required as a pre-condition to litigation in Owner's Dispute Resolution Procedures) covered by such decision must be made or done within 30 days after the date on which the party making the demand (or filing the lawsuit) receives the final written decision, then failure to demand mediation in writing (if required) or file the lawsuit within said 30 days' period shall result in the Design Consultant's (or Owner's as applicable) decision becoming final and binding upon the Owner and Contractor. If the Design Consultant (or Owner as applicable) renders a decision after litigation proceedings have been initiated, such decision may be entered as evidence, but shall not supersede litigation proceedings unless the decision is acceptable to all parties concerned.

- 10.9.12 In the event of a dispute, the Owner, Contractor, and other parties involved in the Project shall utilize the Dispute Resolution Procedures adopted by Owner pursuant to N.C.G.S. §143-128(g), if applicable. Owner's Dispute Resolution Procedures are as follows:

These Procedures are applicable to the resolution of disputes with amounts in controversy in excess of \$15,000.00 arising between or among any parties involved in Owner's construction and repair Projects, including the Design Consultant and the Contractors, and the first and lower tier subcontractors, on Claims arising out of the contract or construction process. In no event shall the Owner be subject to arbitration proceedings pursuant to these Procedures. Unless otherwise specified in these Procedures, if there is any conflict between these Procedures and the other provisions of the Contract Documents, the terms of these Procedures control.

Any Claim as defined in the Contract Documents or any dispute between parties to a construction contract involving the Project, other than the Owner's claims, except those Claims which are waived shall be subject to nonbinding mediation as a condition precedent to the institution of legal proceedings by any party, except that any party may institute legal proceedings in order to meet any applicable statute of limitations or similar deadlines prior to engaging in nonbinding mediation.

The parties shall endeavor to resolve their claims by nonbinding mediation, which, unless the parties mutually agree otherwise, shall be in accordance with rules established by Owner if Owner is a party to the mediation. If Owner is not a party to the mediation, the mediation shall be conducted in accordance with rules established by the parties to the mediation. The parties to the mediation shall share the cost of mediation equally. The mediation shall be held in the place where the project is located unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

- 10.9.13 All suits in law or equity between the Owner and the Contractor arising out of the Contract shall be heard in the appropriate court of justice in the county where the Project is located.

#### END OF ARTICLE 10

### **ARTICLE 11**

#### **CORRECTION OF WORK**

##### 11.1 CORRECTION OF WORK

- 11.1.1 The Contractor shall promptly reconstruct, replace or correct all Work rejected by the Design Consultant as defective or as failing to conform to the Contract Documents or as not in accordance with the guarantees and warranties specified in the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including compensation for the Design Consultant's and the Owner's additional construction management services made necessary thereby.
- 11.1.2 The Contractor, unless removal is waived by the Owner, shall remove from the site all portions of the Work which are defective or non-conforming, or if permitted or required, he shall correct such work in place at his own expense promptly after receipt of notice, and such rejected Work shall not thereafter be tendered for acceptance unless the former rejection or requirement for correction is disclosed.
- 11.1.3 If the Contractor does not proceed with the correction of such defective or non-conforming Work within a reasonable time fixed by written notice from the Owner, the Owner may either (1) by separate contract or otherwise replace or correct such Work and charge the Contractor the cost occasioned the Owner thereby and remove and store the materials or equipment at the expense of the Contractor, or (2) terminate this Contract for default as provided in Paragraph 12.3. If the Contractor does not pay the cost of such replacement or correction and the removal and storage within ten (10) days thereafter, the Owner may upon ten (10) additional days' written notice sell such Work at auction or at private sale and shall account for the net proceeds thereof,

after deducting all the costs that should have been borne by the Contractor, including compensation for additional services of the Design Consultant and the Owner made necessary thereby. If such proceeds of sale do not cover all costs, which the Contractor should have borne, the difference shall be charged to the Contractor and an appropriate Change Order shall be issued. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

- 11.1.4 The Contractor shall bear the cost of making good all work of the Owner or separate contractors destroyed or damaged by such correction or removal.
- 11.1.5 Nothing contained in this Paragraph 11.1 shall be construed to establish a period of limitation with respect to any other obligation, which the Contractor might have under the Contract Documents, including Paragraph 3.5 hereof. The establishment of the time period of one year after the Date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract Documents relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which his obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to his obligations other than specifically to correct the Work.

#### END OF ARTICLE 11

### **ARTICLE 12**

#### **TERMINATION OF THE CONTRACT**

##### 12.1 TERMINATION BY THE CONTRACTOR

- 12.1.1 If the Work is stopped for a period of sixty (60) days under an order of any court or other public authority having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing any of the Work under a contract with the Contractor, then the Contractor may, upon seven (7) additional days' written notice to the Owner and the Design Consultant, terminate the Contract and recover from the Owner payment on a quantum merit basis, for all Work executed. The Contractor shall not be entitled to collect and hereby expressly waives, any profit on work not performed or any damages related to that portion of the Contract, which has been terminated.

##### 12.2 TERMINATION FOR CONVENIENCE OF THE OWNER

- 12.2.1 The Owner may, at any time upon ten (10) days' written notice to the Contractor which notice shall specify that portion of the Work to be terminated and the date said termination is to take effect, terminate (without prejudice to any right or remedy of the Owner) the whole or any portion of the work for the convenience of the Owner. The Contractor's sole remedy, in the event of such termination, will be the allowable termination costs permitted by Article 12.4. Contractor shall include termination clauses identical to Article 12 in each of his Subcontracts.

##### 12.3 DEFAULT TERMINATION

- 12.3.1 Subject to the provisions of Paragraph 2.3.1, ten (10) days after written notice is mailed to the Contractor, the Owner may terminate (without prejudice to any right or remedy of the Owner or any subsequent buyer of any portion of the Work) the employment of the Contractor and his right to proceed either as to the whole or any portion of the Work required by the Contract Documents and may take possession of the Work and complete the Work by contract or otherwise in any one of the following circumstances:

- .1 if the Contractor refuses or fails to prosecute the work or any separable part thereof with such diligence as will ensure the Substantial or Final Completion of the Work within the Contract Time or fails to complete

the Work or remedy a default within said period;

- .2 if the Contractor is in material default in carrying out any provisions of the Contract for a cause within his control;
- .3 if the Contractor fails to supply a sufficient number of properly skilled workmen or proper equipment or materials;
- .4 if the Contractor fails to make prompt payment to Subcontractors or for materials or labor, unless he otherwise provides the Owner satisfactory evidence that payment is not legally due;
- .5 if the Contractor disregards laws, permits, ordinances, rules, regulations or orders of any public authority having jurisdiction, or fails to follow the instructions of the Owner;
- .6 if the Contractor substantially violates any provisions of the Contract Documents; or
- .7 if the Contractor refuses or fails to properly schedule, plan, coordinate and execute the Work, as specified herein, so as to perform the Work within the specified Milestone and Completion dates, or to provide scheduling or related information, revisions and updates as required by the Contract Documents.
- .8 If the Contractor becomes insolvent, makes or has made an assignment for the benefit of creditors, is the subject of proceedings in voluntary or involuntary bankruptcy instituted on behalf of or against it, or has a receiver or trustee appointed for substantially all of its assets, or if Contractor allows any final judgment to stand against it unsatisfied for a period of 2 weeks.

12.3.2 If, after the Contractor has been terminated for default pursuant to Paragraph 12.3, it is determined that none of the circumstances set forth in Subparagraph 12.3.1 exist, then such termination shall be considered a termination for convenience pursuant to Paragraph 12.2 In such case, the Contractor's sole remedy will be the costs permitted by Article 12.4.

12.3.3 If the Owner so terminates the employment of the Contractor, the Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the compensation is to be paid to the Contractor hereunder shall exceed the expense of so completing the Work (including compensation for additional managerial, administrative, consultant and inspection services and any damages for delay) such excess shall be paid to the Contractor.

12.3.4 If such expenses shall exceed the unpaid balance, the Contractor shall be liable to the Owner for such excess. If the right of the Contractor to proceed with the Work is partially or fully terminated, the Owner may take possession of and utilize in completing the Work such materials, appliances, supplies, plant and equipment as may be on the site of the terminated portion of the Work and necessary for the completion of the Work. If the Owner does not fully terminate the right of the Contractor to proceed, the Contractor shall continue to perform the part of the work that is not terminated.

#### 12.4 ALLOWABLE TERMINATION COSTS

12.4.1 If the Owner terminates the whole or any portion of the Work pursuant to Paragraph 12.2, then the Owner shall only be liable to the Contractor for those costs reimbursable to the Contractor in accordance with Subparagraph 12.4.2, plus a markup of ten percent for profit and overhead on the actual fully accounted costs recovered under 12.4.2; provided however, that if there is evidence that the Contractor would have sustained a loss on the entire Contract had it been completed, no profit shall be included or allowed hereunder and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss.

12.4.1.1 After receipt of a Notice of Termination, the Contractor shall submit to the Owner his termination claim, in the form and with certification prescribed by the Owner. Such claim shall be submitted promptly but in no event later than three (3) months from the effective date of termination, unless one or more extensions in writing are

granted by the Owner upon request of the Contractor made in writing within such three (3) month period or authorized extension thereof. However, if the Owner determines that the facts justify such action, he may receive and evaluate any such termination claim at any time after such three (3) month period or any extension thereof. Upon failure of the Contractor to submit his termination claim within the time allowed, the Owner may determine, on the basis of information available to him, the amount, if any, due to the Contractor by reason of the termination.

12.4.2 If the Owner terminates the whole or any portion of the Work pursuant to Paragraph 12.2, the Owner shall pay the Contractor the amounts determined by the Owner as follows:

- .1 an amount for supplies, services, or property accepted by the Owner pursuant to Clause 12.5.1.6 or sold or acquired pursuant to Clause 12.5.1.7 and not heretofore paid for, and to the extent provided in the Contract such amount shall be equivalent to the aggregate price for such supplies or services computed in accordance with the price or prices specified in the Contract, appropriately adjusted for any saving of freight or other charges; and
- .2 the total of:
  - (1) the cost incurred in the performance of the Work terminated, including initial costs and preparatory expense allocable thereto, but exclusive of any costs attributable to supplies or services paid or to be paid for under Clauses 12.4.2.1 or 12.4.2.2.(2);
  - (2) the cost of settling and paying claims arising out of the termination of Work under Subcontracts or orders, pursuant to Clause 12.5.1.5, which are properly chargeable to the terminated portion of the Work (exclusive of amounts paid or payable on account of completed items of equipment delivered or services furnished by Subcontractors or vendors prior to the effective date of the notice of termination), which amounts shall be included in the costs payable under (1) above; and
  - (3) the reasonable costs of settlement, including accounting, legal, clerical and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the terminated portion of the Work and for the termination and settlement of Subcontracts thereunder, together with reasonable storage, transportation and other costs incurred in connection with the protection or disposition of property allocable to the Contract.
- .3 Provided, however, that neither the Owner nor the Design Consultant will be liable for payments to Subcontractors pursuant to Article 12.4.2.2 unless each subcontract contains termination provisions identical to those set forth in Article 12. The Owner and the Design Consultant will not be liable to the Contractor for any costs associated with termination if the subcontract of the party involved does not include the proper termination clauses.

12.4.3 In arriving at any amount due the Contractor pursuant to Paragraph 12.4, there shall be deducted the following:

- .1 all unliquidated advance or other payments on account theretofore made to the Contractor applicable to the terminated portion of the Contract;
- .2 any claim which the Owner may have against the Contractor;
- .3 such amount as the Owner determines to be necessary to protect the Owner against loss because of outstanding or potential liens or claims; and
- .4 the agreed price for, or the proceeds of sale of, any materials, supplies or other things acquired by the Contractor or sold, pursuant to the provisions of Clause 12.5.1.7, and not otherwise recovered by or credited to the Owner.

12.4.4 The total sum to be paid to the Contractor under Paragraph 12.4 shall not exceed the Contract Sum as reduced by the amount of payments otherwise made or to be made for Work not terminated and as otherwise permitted

by the Contract. Except for normal spoilage, and except to the extent that the Owner shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor, as provided in Subparagraph 12.4.2, the fair value, as determined by the Owner, of property which is destroyed, lost, stolen or damaged so as to become undeliverable to the Owner, or to a buyer pursuant to Clause 12.5.1.7.

12.4.5 If the Owner terminates the whole or any part of the Work pursuant to Paragraph 12.3, the Owner may procure, upon such terms and in such manner as the Owner may deem appropriate, supplies or services similar to those so terminated, and the Contractor shall be liable to the Owner for any excess costs for such similar supplies or services. The Contractor shall continue the performance of the Contract to the extent not terminated hereunder.

## 12.5 GENERAL TERMINATION PROVISIONS

12.5.1 After receipt of a notice of termination from the Owner, pursuant to Paragraph 12.2 or 12.3, and except as otherwise directed by the Owner, the Contractor shall:

- .1 stop Work under the Contract on the date and to the extent specified in the notice of termination;
- .2 place no further orders or subcontracts for materials, services or facilities, except as may be necessary for completion of such portion of the work under the Contract as is not terminated;
- .3 terminate all orders and subcontracts to the extent that they relate to the performance of Work terminated by the notice of termination;
- .4 at the option of the Owner, assign to the Owner in the manner, at the times and to the extent directed by the Owner, all of the rights in the contracts so terminated, in which case the Owner shall have the right, at his discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts;
- .5 settle all outstanding liabilities and all claims arising out of such termination or orders and subcontracts, with the approval or ratification of the Owner, to the extent he may require, which approval or ratification shall be final for all the purposes of this Article;
- .6 transfer title and deliver to the entity or entities designated by the Owner, in the manner, at the times and to the extent directed by the Owner to the extent specifically produced or specifically acquired by the Contractor for the performance of such portion of the Work as had been terminated, the following:
  - (1) the fabricated or unfabricated parts, Work in process, partially completed supplies and equipment, materials, parts, tools, dies, jigs and other fixtures, completed Work, supplies and other material produced as part of, or acquired in connection with the performance of, the Work terminated by the notice of termination; and
  - (2) the completed or partially completed plans, drawings, information, releases, manuals and other property related to the Work and which, if the Contract had been completed, would have been required to be furnished to the Owner;
- .7 use his best efforts to sell, in the manner, at the times, to the extent and at the price or prices directed or authorized by the Owner, any property of the types referred to in Clause 12.5.1.6; provided, however, that the Contractor:
  - (1) shall not be required to extend credit to any buyer, and
  - (2) may acquire any such property under the conditions prescribed by and at a price or prices approved by the Owner; and provided further that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the Owner to the Contractor under the Contract or shall otherwise be credited to the Contract Sum covered by the Contract or paid in such other manner as the Owner may direct;

- .8 complete performance of such part of the Work as shall not have been terminated by the notice of termination; and
  - .9 take such action as may be necessary, or as the Owner may direct, for the protection and preservation of the property related to the Contract, which is in the possession of the Contractor, and in which the Owner has or may acquire an interest.
- 12.5.2 The Contractor shall, from the effective date of termination until the expiration of three (3) years after final settlement under the Contract, preserve and make available to the Owner, at all reasonable times at the office of the Contractor, but without direct charge to the Owner, all his books, records, documents and other evidence bearing on the costs and expenses of the Contractor under the Contract and relating to the Work terminated hereunder, or, to the extent approved by the Owner, photographs, micro-photographs or other authentic reproductions thereof.
- 12.5.3 If the termination, pursuant to Paragraph 12.2, be partial, the Contractor may file with the Owner a claim for an equitable adjustment of the price or prices specified in the Contract relating to the continued portion of the Contract (the portion not terminated by the notice of termination), and such equitable adjustment as may be agreed upon shall be made in such price or prices. Any claim by the Contractor for an equitable adjustment under this Subparagraph must be asserted within six (6) months from the effective date of the notice of termination.
- 12.5.4 The Contractor shall refund to the Owner any amounts paid by the Owner to the Contractor in excess of costs reimbursable under Paragraph 12.4.
- 12.5.5 The Contractor shall be entitled to only those damages and that relief from termination by the Owner as specifically provided in Article 12.

END OF ARTICLE 12

END OF GENERAL CONDITIONS



**CONTRACTOR'S SALES TAX REPORT (Appendix A)  
N.C. STATE & LOCAL SALES TAXES PAID**

**OWNER:** \_\_\_\_\_  
**CONTRACTOR:** \_\_\_\_\_  
**ADDRESS:** \_\_\_\_\_

**PROJECT:** \_\_\_\_\_  
**FOR PERIOD FROM:** \_\_\_\_\_  
**TO:** \_\_\_\_\_

VENDOR TAX WAS PAID TO	MATERIAL PURCHASED	ADDRESS	INVOICE NUMBER	DATE	INVOICE AMOUNT	TAXABLE AMOUNT	N.C. TAX	COUNTY TAX	NAME OF COUNTY
				<b>TOTAL</b>					

I hereby certify that, during the period stated above, all North Carolina sales and use taxes have been paid for the materials, supplies, fixtures, and equipment purchased during that period which have become a part of, or annexed to, a building or structure erected, altered or repaired for the Owner. I further certify that the vendors from whom the property was purchased, the dates and numbers of the invoices covering the purchases, the total amount of the invoices of each vendor, the North Carolina sales and use taxes paid thereon, and the cost of property withdrawn from warehouse stock and North Carolina sales or use taxes paid thereon are as set forth above during the time period noted above.

Sworn to and subscribed before me,  
 This the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_  
 \_\_\_\_\_  
 Notary Public

Seal

Signed: \_\_\_\_\_  
 Print Name: \_\_\_\_\_  
 Title: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_



**CHANGE PROPOSAL FORM**  
**Time and Material / Unit Price Estimate**

**Project:** \_\_\_\_\_  
**Contract:** \_\_\_\_\_  
**Contractor:** \_\_\_\_\_

**Proposal #:** \_\_\_\_\_  
**Project #:** \_\_\_\_\_  
**Contractor #:** \_\_\_\_\_

**Description of change:**

**Materials & Labor**

Estimated cost of labor & materials including shipping, overtime, payroll taxes and insurance, and overhead and profit.  
 Maintain accurate records for billing purposes.

**SUBTOTALS**

**Unit Price Work**

Estimated quantity of units required less allowance units not used, times the established unit cost.  
 Maintain accurate records for billing purposes. Third party records may be required.

**Equipment Rental**

Estimated cost of equipment rental including shipping, taxes and overhead and profit.  
 Maintain accurate records for billing purposes.

**Subcontractors**

Estimated cost of subcontracts including all subcontractor expenses.  
 Maintain accurate records for billing purposes.

**Subtotal of Proposal**

**\* TOTAL NOT TO EXCEED CHANGE PROPOSAL ESTIMATE**

Time Extension Requests: \_\_\_day(s) Schedule Activity # Affected: \_\_\_\_\_

The Contractor agrees to perform the work outlined in this change proposal for an amount that shall not exceed the amount stated above and in accordance with the Contract documents if the work is authorized by the Owner. If the price to perform the work is expected to exceed the above stated amount, a new change proposal form for the additional work is required.

\* Actual amount paid will be based on actual documented expenses.

**Contractor's Signature:** \_\_\_\_\_

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

**Approval Recommended by Design Consultant:** \_\_\_\_\_

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

**Owner's Representative Approval:** \_\_\_\_\_

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

**CHANGE PROPOSAL FORM**

**Project:** \_\_\_\_\_  
**Contract:** \_\_\_\_\_  
**Contractor:** \_\_\_\_\_

**Proposal #:** \_\_\_\_\_  
**Project #:** \_\_\_\_\_  
**Contractor #:** \_\_\_\_\_

**Description of change:**

<b>Materials</b> (Attach list with Qty, Item, Unit \$, Unit mh, Total mh, OT mh, Total \$)		<b>SUBTOTALS</b>
1 Total Direct Cost of Materials	_____	
2 Overhead & Profit on Item 1. (15% maximum, includes small tools & consumables)	_____ _____	
3 Sales Tax	_____	
4 Shipping & Transportation	_____	
<b>Labor</b>		
5 Total Manhours: _____ MH @ _____ /hr.	_____	
6 Overhead & Profit on Item 5. (15% maximum on straight labor cost, not premium portion) (O & P includes supervisor's time)	_____ _____	
7 Payroll Taxes & Insurance _____ %	_____	
<b>Equipment Rental</b> (Include quotes)		
8 Equipment Rental	_____	
9 Overhead & Profit on Item 8 (6% maximum).	_____	
<b>Subcontractors</b> (Include quotes with material & equipment backup)		
10 Subcontractors	_____	
11 Overhead & Profit on Item 10 (6% maximum).	_____	_____
<b>Subtotal of Proposal</b>		_____

**TOTAL OF CHANGE PROPOSAL** \_\_\_\_\_

Time Extension Requests: \_\_\_\_\_ day(s) Schedule Activity # Affected: \_\_\_\_\_

The Contractor agrees to perform the work outlined in this change proposal for the amount specified above and in accordance with the Contract documents if the work is authorized by the Owner.

**Contractor's Signature:** \_\_\_\_\_

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

**Approval Recommended by Design Consultant:** \_\_\_\_\_

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

**Owner's Representative Approval:** \_\_\_\_\_

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

## SECTION SC

### SUPPLEMENTAL CONDITIONS

#### GENERAL CONDITIONS

Document GC, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, constitutes the General Conditions of this Contract, and is hereinafter called "General Conditions." The General Conditions are further revised and supplemented by the provisions of these Supplemental Conditions. The General Conditions and the Supplemental Conditions are applicable to all of the Work under this contract and shall apply to the Contractor and all Subcontractors and Sub-subcontractors.

#### SUPPLEMENTS:

The following supplements modify, change, delete, or add to the General Conditions. Where any article of the General Conditions is modified or any paragraph deleted, subparagraph or clause thereof is modified, or deleted by these supplements, the unaltered provisions of such article, paragraph, subparagraph or clause shall remain in effect. If there is a discrepancy between the General Conditions and these Supplemental Conditions, the Supplemental Conditions shall control.

#### ARTICLE 1 - CONTRACT DOCUMENTS

ADD THE FOLLOWING TO 1.1.4.1:

- 1.1.4.1 The requirement to provide one set of drawings and specifications for free as noted in Section 1.1.4. is revised as follows:

[Insert any modifications if necessary]

#### ARTICLE 3 – CONTRACTOR

ADD THE FOLLOWING TO PARAGRAPH 3.21:

- 3.21 The Owner's policies are available for review at [www.](http://www.)

#### ARTICLE 7 – TIME

ADD THE FOLLOWING AS A NEW SECOND SENTENCE TO PARAGRAPH 7.2.1:

The Contractor acknowledges that the coronavirus (COVID-19) pandemic has impacted businesses across the country.

ADD THE FOLLOWING TO THE END OF THE FIRST PARAGRAPH IN 7.2.1.1:

The Parties agree that the weather station applicable to this Project shall be the one located at

#### ARTICLE 8 – PAYMENTS AND COMPLETION

ADD THE FOLLOWING TO PARAGRAPH 8.9:

- 8.9.1 Substantial Completion Liquidated Damages shall be the sum Five Hundred dollars (\$500.00) per calendar day, and this amount shall be assessed in accordance with Subparagraph 8.9.1 of the General Conditions.

8.9.2 Final Completion Liquidated Damages shall be the sum of Two Hundred Fifty dollars (\$250.00) per calendar day, and this amount shall be assessed in accordance with Subparagraph 8.9.2 of the General Conditions.

ADD THE FOLLOWING PARAGRAPH 8.11:

8.11.1 The schedule below contains certain specific dates in addition to date of Notice to Proceed and Time for Completion. These dates shall be adhered to and are the last acceptable dates unless modified by mutual agreement between the Contractor and the Owner. All dates indicate midnight unless otherwise stipulated. The only exceptions to this schedule are defined in the General Conditions under Paragraph 7.2 DELAYS AND EXTENSIONS OF TIME.

Notice of Intent to Award – [Insert Date]  
Return of Owner Contractor Agreement by Contractor – [Insert Date]  
Notice to Proceed – [Insert Date]  
Substantial Completion – [Insert Date]  
Completion of all Commissioning – [Insert Date]  
Final Completion – [Insert Date]

8.11.2 The Owner reserves the right to withhold the issuance of Notice to Proceed by up to forty-five (45) days. For each day that Notice to Proceed is withheld pursuant to this Subparagraph, the dates established for Substantial Completion and Final Completion shall be adjusted. The contractor shall not be entitled to additional compensation if the owner withholds the issuance of Notice to Proceed pursuant to this Subparagraph.

#### ARTICLE 9 – INSURANCE AND BONDS

ADD THE FOLLOWING TO PARAGRAPH 9.9:

9.9 Separate performance and payment bonds in the total amount of the Contract are required for Contract amounts in excess of \$300,000.

#### ARTICLE 10 – CHANGES IN WORK

ADD THE FOLLOWING NEW PARAGRAPH 10.9.14:

10.9.14 Additional services and dispute resolution services by the Design Consultant shall be paid by the Contractor at the rate of \_\_\_\_\_ dollars (\$\_\_\_\_\_) per hour.

ADD THE FOLLOWING NEW PARAGRAPH 10.9.15:

10.9.15 The Owner's Dispute Resolution Policy required by N.C.G.S. § 143-128(f1) is contained in Policy \_\_\_\_\_ ([www.\\_\\_\\_\\_\\_.com](http://www._____.com)). The Dispute Resolution Policy is also included in the bid and contract documents.

END OF SUPPLEMENTAL CONDITIONS

## ANTICIPATED PROJECT SCHEDULE

Bid Opening	November 10, 2022 at 2:00 pm
Notice of Intent to Award	November 11, 2022
Contract Delivered to Contractor	November 14, 2022
Return of Owner-Contractor Agreement by Contractor	December 2, 2022
Contract to Board	December 13, 2022
Notice to Proceed	January 19, 2023
Construction Work to Begin in School	June 5, 2023
Substantial Completion	July 28, 2023
Final Completion	August 18, 2023



## SECTION 011000 - SUMMARY

## PART 1 - GENERAL

## 1.1 SUMMARY

## A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Contractor's use of site and premises.
4. Coordination with occupants.
5. Work restrictions.
6. Specification and Drawing conventions.

## 1.2 PROJECT INFORMATION

## A. Project Identification: Southport Elementary School Window &amp; Door Replacement.

1. Project Location: 701 W. 9<sup>th</sup> Street, Southport, North Carolina 28461.

## B. Owner: County of Brunswick North Carolina, 35 Referendum Drive NE, Bolivia, North Carolina 28422.

1. Owner's Representative: Craig Eckert, Program Director.

## C. Architect: LS3P, 101 N. Third Street, Suite 500, Wilmington, NC 28401; Phone: 910.790.9901.

1. Architect's Representative: Matt Bramstedt, AIA.

## D. Web-based Project Software: Project software will be used for purposes of managing communication and documents during the construction stage.

1. See Section 013100 "Project Management and Coordination." for requirements for using web-based Project software.

## 1.3 WORK COVERED BY CONTRACT DOCUMENTS

## A. The Work of Project is defined by the Contract Documents and includes, but is not limited to, the following:

1. Demolition and replacement of all existing exterior doors and windows and other Work indicated in the Contract Documents.

## B. Type of Contract:

1. Project will be constructed under a single prime contract.

## 1.4 CONTRACTOR'S USE OF SITE AND PREMISES

## A. Restricted Use of Site: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

## B. Limits on Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.

C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.

D. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

#### 1.5 COORDINATION WITH OCCUPANTS

A. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.

#### 1.6 WORK RESTRICTIONS

A. Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.

B. E-Verify Compliance: Pursuant to Session Law 2013-418, Contractor shall fully comply with the U.S. Department of Homeland Security employee legal status E-Verify requirements for itself and all its subcontractors. Owner requires an affidavit attesting to Contractor's compliance. Violation of the provision, unless timely cured, shall constitute a breach of contract.

C. On-Site Work Hours: Coordinate with owner

D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging for temporary utility services according to requirements indicated:

1. Notify Owner not less than two days in advance of proposed utility interruptions.

2. Obtain Owner's written permission before proceeding with utility interruptions.

E. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.

1. Notify Owner not less than two days in advance of proposed disruptive operations.

2. Obtain Owner's written permission before proceeding with disruptive operations.

F. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances on Owner's property is not permitted.

G. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.

H. Background Checks: Comply with Owner's requirements.

## 1.7 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
  2. Text Color: Text used in the Specifications, including units of measure, manufacturer and product names, and other text may appear in multiple colors or underlined as part of a hyperlink; no emphasis is implied by text with these characteristics.
  3. Hypertext: Text used in the Specifications may contain hyperlinks. Hyperlinks may allow for access to linked information that is not residing in the Specifications. Unless otherwise indicated, linked information is not part of the Contract Documents.
  4. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000



STATE OF \_\_\_\_\_

E-VERIFY AFFIDAVIT

COUNTY OF \_\_\_\_\_

\*\*\*\*\*

I, \_\_\_\_\_ (the individual attesting below), being duly authorized by and on behalf of \_\_\_\_\_ (the entity bidding on project hereinafter "Employer")

after first being duly sworn hereby swears or affirms as follows:

1. Employer understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25(5).

2. Employer understands that Employers Must Use E-Verify. Each employer, after hiring an employee to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS§64-26(a).

3. Employer is a person, business entity, or other organization that transacts business in this State and that employs 25 or more employees in this State. (Mark "Yes" or "No")

a. YES \_\_\_\_\_

b. NO \_\_\_\_\_

4. Employer's subcontractors comply with E-Verify, and if Employer is the winning bidder on this project Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer.

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Signature of Affiant

Print or Type Name: \_\_\_\_\_

State of \_\_\_\_\_ County of \_\_\_\_\_

Signed and sworn to (or affirmed) before me, this the \_\_\_\_\_

day of \_\_\_\_\_, 20\_\_\_\_.

My Commission Expires:

\_\_\_\_\_  
Notary Public

||  
Seal)  
(Affix Official/Notarial  
||



## SECTION 012100 - ALLOWANCES

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
  - 1. Unforeseen allowances.

## 1.2 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

## 1.3 UNFORESEEN WORK ALLOWANCES

- A. Unforeseen Work Allowance is limited to the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. Use the Unforeseen Work Allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit.
- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

## 1.4 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, required maintenance materials, and similar margins.
  - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
  - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
  - 3. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.
  - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

- B. Submit claims for increased costs due to a change in the scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
  2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Include the sum of \$25,0000 for unforeseen work.

END OF SECTION 012100

## SECTION 012500 - SUBSTITUTION PROCEDURES

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.

## 1.2 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
  - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
  - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

## 1.3 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: Use form provided in Project Manual.
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
    - b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
    - c. Detailed comparison of significant qualities of proposed substitutions with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
    - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    - e. Samples, where applicable or requested.
    - f. Certificates and qualification data, where applicable or requested.
    - g. List of similar installations for completed projects, with project names and addresses as well as names and addresses of architects and owners.
    - h. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
    - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
    - j. Detailed comparison of Contractor's construction schedule using proposed substitutions with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time,

- include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
  - k. Cost information, including a proposal of change, if any, in the Contract Sum.
  - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
  - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
  - a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

#### 1.4 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

#### 1.5 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

#### 1.6 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
  - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
    - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
    - b. Substitution request is fully documented and properly submitted.
    - c. Requested substitution will not adversely affect Contractor's construction schedule.
    - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
    - e. Requested substitution is compatible with other portions of the Work.
    - f. Requested substitution has been coordinated with other portions of the Work.
    - g. Requested substitution provides specified warranty.
    - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Not allowed.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500



# REQUEST FOR SUBSTITUTION

Project: Southport Elementary School  
Window & Door Replacement  
Project No.: 7201-218690  
To: LS3P  
Specification Section #: \_\_\_\_\_  
Wilmington, NC  
Contractor: \_\_\_\_\_  
Attn.: Matt Bramstedt  
Requested by: \_\_\_\_\_  
Phone: 910-790-9901  
Phone: \_\_\_\_\_  
Fax: 910-790-3301  
Fax: \_\_\_\_\_  
Email: mattbramstedt@ls3p.com  
Email: \_\_\_\_\_

Reason for not providing specified item: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Savings to Owner for accepting substitution: \_\_\_\_\_

**Specified Product/Fabrication Method**  
(List name/description; model no.; manufacturer): \_\_\_\_\_  
\_\_\_\_\_

Required Information for <i>Specified</i> Product:	Attached:
Point by Point Comparative Product Data	<input type="checkbox"/>
Tests	<input type="checkbox"/>
Reports	<input type="checkbox"/>
Fabrication Drawings	<input type="checkbox"/>
Samples (Where Applicable)	<input type="checkbox"/>

**Proposed Product/Fabrication Method**  
(List trade name/description; model no.; manufacturer): \_\_\_\_\_  
\_\_\_\_\_

Required Information for <i>Proposed</i> Product:	Attached:
Point by Point Comparative Product Data	<input type="checkbox"/> (Required)
Tests	<input type="checkbox"/>
Reports	<input type="checkbox"/>
Fabrication Drawings	<input type="checkbox"/>
Samples (Where Applicable)	<input type="checkbox"/>

List of Related Changes/Modifications: \_\_\_\_\_  
\_\_\_\_\_

Differences between proposed substitution  
and specified product: \_\_\_\_\_  
\_\_\_\_\_

Proposed product/fabrication method  
affects other parts of the Work  No  Yes: Explain \_\_\_\_\_  
\_\_\_\_\_

# REQUEST FOR SUBSTITUTION

Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product as utilized for this project, except as noted herein.
- Qualifications of manufacturer, installer, and other specified parties meet the specified qualifications.
- Same special warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source for replacement parts, as applicable, is available as that specified.
- Proposed substitution does not affect dimensions and functional clearances, except as noted herein.
- Proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
- Failure of proposed substitution to produce indicated results will not be considered grounds for additional payment or time.

**For the Contractor:**

Submitted by: \_\_\_\_\_  
Signed: \_\_\_\_\_  
Firm: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Email: \_\_\_\_\_

**For the Manufacturer:**

Submitted by: \_\_\_\_\_  
Signed: \_\_\_\_\_  
Firm: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Email: \_\_\_\_\_

END OF REQUEST FOR SUBSTITUTION

## SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

## 1.2 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710.
  - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.

## 1.3 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
  - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
  - 2. Within time specified in Proposal Request or 20 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include costs of labor and supervision directly attributable to the change.
    - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
  - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
  - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
  - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
  - 4. Include costs of labor and supervision directly attributable to the change.
  - 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.

#### 1.4 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Change Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

#### 1.5 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
  1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
  1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

## SECTION 012900 - PAYMENT PROCEDURES

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.

## 1.2 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.
  - 1. Coordinate line items in the schedule of values with items required to be indicated as separate activities in Contractor's construction schedule.
  - 2. Submit the schedule of values to Architect at earliest possible date, but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
  - 1. Arrange schedule of values consistent with format of AIA Document G703.
  - 2. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.
  - 3. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
    - a. Differentiate between items stored on-site and items stored off-site.
  - 4. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
  - 5. Overhead Costs: Include total cost and proportionate share of general overhead and profit for each line item.

## 1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.

1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
  2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
  3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- E. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- F. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
1. Owner reserves the right to designate which entities involved in the Work must submit waivers.
  2. Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
  3. Waiver Forms: Submit executed waivers of lien on forms acceptable to Owner.
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
  2. Schedule of values.
  3. Contractor's construction schedule (preliminary if not final).
  4. Products list (preliminary if not final).
  5. Schedule of unit prices.
  6. Submittal schedule (preliminary if not final).
  7. List of Contractor's staff assignments.
  8. List of Contractor's principal consultants.
  9. Copies of building permits.
  10. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
  11. Initial progress report.
  12. Report of preconstruction conference.
  13. Certificates of insurance and insurance policies.
- H. Retainage Reduction: Until the Work is 50 percent complete, the Owner shall pay 95 percent of the amount due to the Contractor on account of progress payments. At the time the Work is 50 percent complete and thereafter, the Contractor shall submit, for Owner's and Architect's review and approval a written request for retainage reduction. Upon Owner's approval, with written consent of the surety, the Architect may certify remaining partial payments to be paid in full.
1. The Contractor, as a condition precedent to retainage reduction, shall submit for review and approval by the Architect the required Operation and Maintenance Manuals.
- I. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
  2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- J. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
  2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
  3. Updated final statement, accounting for final changes to the Contract Sum.
  4. AIA Document G706.
  5. AIA Document G706A.
  6. AIA Document G707.
  7. Evidence that claims have been settled.
  8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
  9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900



## SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
1. General coordination procedures.
  2. Coordination drawings.
  3. RFIs.
  4. Web-based project management system.
  5. Project meetings.

## 1.2 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
  2. Number and title of related Specification Section(s) covered by subcontract.
  3. Drawing number and detail references, as appropriate, covered by subcontract.

## 1.3 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's construction schedule.
  2. Preparation of the schedule of values.
  3. Installation and removal of temporary facilities and controls.
  4. Delivery and processing of submittals.
  5. Progress meetings.
  6. Preinstallation conferences.
  7. Project closeout activities.
  8. Startup and adjustment of systems.

#### 1.4 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely indicated on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
    - a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
    - b. Indicate dimensions shown on Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternative sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:
1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
  2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within plenums to accommodate layout of light fixtures and other components indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
  3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
  4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
  5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
  6. Review: Architect will review coordination drawings to confirm that, in general, the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will so inform Contractor, who shall make suitable modifications and resubmit.

#### 1.5 REQUEST FOR INFORMATION (RFI)

- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.
  2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Owner name.
  2. Owner's Project number.

3. Name of Architect.
  4. Architect's Project number.
  5. Date.
  6. Name of Contractor.
  7. RFI number, numbered sequentially.
  8. RFI subject.
  9. Specification Section number and title and related paragraphs, as appropriate.
  10. Drawing number and detail references, as appropriate.
  11. Field dimensions and conditions, as appropriate.
  12. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  13. Contractor's signature.
  14. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
- C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Architect.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow five working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for approval of Contractor's means and methods.
    - d. Requests for coordination information already indicated in the Contract Documents.
    - e. Requests for adjustments in the Contract Time or the Contract Sum.
    - f. Requests for interpretation of Architect's actions on submittals.
    - g. Incomplete RFIs or inaccurately prepared RFIs.
  2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect of additional information.
  3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within five days of receipt of the RFI response.
- E. RFI Log: Use software log that is part of web-based Project management software.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.
- 1.6 WEB-BASED PROJECT INFORMATION MANAGEMENT SYSTEM
- A. The Architect has established a web-based Project Information Management System to facilitate communication and record-keeping during the project. Architect will provide access to Contractor's key personnel. Refer to [www.NewForma.com](http://www.NewForma.com).
1. Use Architect's web-based Project Information Management System for purposes of managing project communication and documentation until Final Completion.

2. Due to the size restrictions on email communication, all electronic files must be submitted through NewForma. Architect assumes no responsibility for information not received by Contractor's failure to use NewForma and such loss or delay of information will not be considered as a delay claim.

B. Project Information Management System shall include the following functions:

1. Project directory.
2. Project correspondence.
3. Meeting minutes.
4. Contract modifications forms and logs.
5. RFI forms and logs.
6. Submittals forms and logs.
7. Reminder and tracking functions.
8. Task and issue management.
9. Photo documentation.
10. Schedule and calendar management.
11. Payment application forms.
12. Drawing and specification document hosting, viewing, and updating.
13. Online document collaboration.
14. Archiving functions.

C. Contractor, subcontractors, and other parties granted access by Contractor to Project Information Management System shall execute a data licensing agreement in the form of Agreement included in this Project Manual.

## 1.7 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.

B. Preconstruction Conference: Architect will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.

1. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Discuss items of significance that could affect progress, including the following:
  - a. Responsibilities and personnel assignments.
  - b. Tentative construction schedule.
  - c. Phasing.
  - d. Critical work sequencing and long lead items.
  - e. Designation of key personnel and their duties.
  - f. Lines of communications.
  - g. Use of web-based Project software.
  - h. Procedures for processing field decisions and Change Orders.
  - i. Procedures for RFIs.
  - j. Procedures for testing and inspecting.
  - k. Procedures for processing Applications for Payment.
  - l. Distribution of the Contract Documents.
  - m. Submittal procedures.
  - n. Preparation of Record Documents.
  - o. Use of the premises and existing building.

- p. Work restrictions.
  - q. Working hours.
  - r. Owner's occupancy requirements.
  - s. Responsibility for temporary facilities and controls.
  - t. Procedures for moisture and mold control.
  - u. Procedures for disruptions and shutdowns.
  - v. Construction waste management and recycling.
  - w. Parking availability.
  - x. Office, work, and storage areas.
  - y. Equipment deliveries and priorities.
  - z. First aid.
  - aa. Security.
  - bb. Progress cleaning.
3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity when required by other sections and when required for coordination with other construction.
- 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.
  - 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
    - a. Contract Documents.
    - b. Options.
    - c. Related RFIs.
    - d. Related Change Orders.
    - e. Purchases.
    - f. Deliveries.
    - g. Submittals.
    - h. Review of mockups.
    - i. Possible conflicts.
    - j. Compatibility requirements.
    - k. Time schedules.
    - l. Weather limitations.
    - m. Manufacturer's written instructions.
    - n. Warranty requirements.
    - o. Compatibility of materials.
    - p. Acceptability of substrates.
    - q. Temporary facilities and controls.
    - r. Space and access limitations.
    - s. Regulations of authorities having jurisdiction.
    - t. Testing and inspecting requirements.
    - u. Installation procedures.
    - v. Coordination with other work.
    - w. Required performance results.
    - x. Protection of adjacent work.
    - y. Protection of construction and personnel.
  - 3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
  - 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.

5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

D. Progress Meetings: Conduct progress meetings at weekly intervals.

1. Coordinate dates of meetings with preparation of payment requests.
2. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
  - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
    - 1) Review schedule for next period.
  - b. Review present and future needs of each entity present, including the following:
    - 1) Interface requirements.
    - 2) Sequence of operations.
    - 3) Status of submittals.
    - 4) Deliveries.
    - 5) Off-site fabrication.
    - 6) Access.
    - 7) Site use.
    - 8) Temporary facilities and controls.
    - 9) Progress cleaning.
    - 10) Quality and work standards.
    - 11) Status of correction of deficient items.
    - 12) Field observations.
    - 13) Status of RFIs.
    - 14) Status of Proposal Requests.
    - 15) Pending changes.
    - 16) Status of Change Orders.
    - 17) Pending claims and disputes.
    - 18) Documentation of information for payment requests.
4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
  - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100



## SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
1. Contractor's Construction Schedule.
  2. Construction schedule updating reports.
  3. Daily construction reports.
  4. Site condition reports.

## 1.2 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction Project. Activities included in a construction schedule consume time and resources.
1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
  2. Predecessor Activity: An activity that precedes another activity in the network.
  3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
  2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
  3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

## 1.3 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
1. PDF file.
- B. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.

- C. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
  - 1. Submit a working digital copy of schedule, using software indicated, and labeled to comply with requirements for submittals.
- D. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
  - 1. Activity Report: List of activities sorted by activity number and then early start date, or actual start date if known.
  - 2. Logic Report: List of preceding and succeeding activities for each activity, sorted in ascending order by activity number and then by early start date, or actual start date if known.
  - 3. Total Float Report: List of activities sorted in ascending order of total float.
- E. Construction Schedule Updating Reports: Submit with Applications for Payment.
- F. Daily Construction Reports: Submit at monthly intervals.
- G. Site Condition Reports: Submit at time of discovery of differing conditions.

#### 1.4 COORDINATION

- A. Coordinate Contractor's Construction Schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
  - 1. Secure time commitments for performing critical elements of the Work from entities involved.
  - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

#### 1.5 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
- B. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Final Completion.
  - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each floor or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
  - 1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
  - 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
  - 3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with submittal schedule.

4. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
  5. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and Final Completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
1. Work Restrictions: Show the effect of the following items on the schedule:
    - a. Coordination with existing construction.
    - b. Uninterruptible services.
    - c. Use-of-premises restrictions.
    - d. Seasonal variations.
    - e. Environmental control.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion.
- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
1. Unresolved issues.
  2. Unanswered Requests for Information.
  3. Rejected or unreturned submittals.
  4. Notations on returned submittals.
  5. Pending modifications affecting the Work and the Contract Time.
- G. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities.
1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  2. As the Work progresses, indicate final completion percentage for each activity.
- H. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, equipment required to achieve compliance, and date by which recovery will be accomplished.
- I. Distribution: Distribute copies of approved schedule to Architect, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
  2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.
- 1.6 STARTUP CONSTRUCTION SCHEDULE
- A. Bar-Chart Schedule: Submit startup, horizontal, bar-chart-type construction schedule within seven days of date established for the Notice to Proceed.

- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 90 days of construction. Include skeleton diagram for the remainder of the Work.

#### 1.7 CPM SCHEDULE REQUIREMENTS

- A. Prepare network diagrams using AON (activity-on-node) format.
- B. CPM Schedule: Prepare Contractor's Construction Schedule using a time-scaled CPM network analysis diagram for the Work.
1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than 30 days after date established for the Notice to Proceed.
    - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates.
  2. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
  3. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule to coordinate with the Contract Time.
- C. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the startup network diagram, prepare a skeleton network to identify probable critical paths.
1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
    - a. Preparation and processing of submittals.
    - b. Mobilization and demobilization.
    - c. Purchase of materials.
    - d. Delivery.
    - e. Fabrication.
    - f. Utility interruptions.
    - g. Installation.
    - h. Work by Owner that may affect or be affected by Contractor's activities.
    - i. Testing and inspection.
    - j. Punch list and Final Completion.
  2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
  3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
  4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
    - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
- D. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall Project schedule.
- E. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
1. Contractor or subcontractor and the Work or activity.

2. Description of activity.
3. Main events of activity.
4. Immediate preceding and succeeding activities.
5. Early and late start dates.
6. Early and late finish dates.
7. Activity duration in workdays.
8. Total float or slack time.

F. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:

1. Identification of activities that have changed.
2. Changes in early and late start dates.
3. Changes in early and late finish dates.
4. Changes in activity durations in workdays.
5. Changes in the critical path.
6. Changes in total float or slack time.
7. Changes in the Contract Time.

## 1.8 REPORTS

A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:

1. List of subcontractors at Project site.
2. List of separate contractors at Project site.
3. Approximate count of personnel at Project site.
4. Equipment at Project site.
5. Material deliveries.
6. High and low temperatures and general weather conditions, including presence of rain or snow.
7. Testing and inspection.
8. Accidents.
9. Meetings and significant decisions.
10. Stoppages, delays, shortages, and losses.
11. Meter readings and similar recordings.
12. Emergency procedures.
13. Orders and requests of authorities having jurisdiction.
14. Change Orders received and implemented.
15. Construction Change Directives received and implemented.
16. Services connected and disconnected.
17. Equipment or system tests and startups.
18. Partial completions and occupancies.
19. Substantial Completions authorized.

B. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013200

## SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
1. Preconstruction photographs.
  2. Periodic construction photographs.
  3. Final completion construction photographs.

## 1.2 INFORMATIONAL SUBMITTALS

- A. Digital Photographs: Submit image files within three days of taking photographs.
1. Submit photos by uploading to web-based Project management software site. Include copy of key plan indicating each photograph's location and direction.
  2. Identification: Provide the following information with each image description in file metadata tag:
    - a. Name of Project.
    - b. Date photograph was taken.
    - c. Description of location, vantage point, and direction.

## 1.3 FORMATS AND MEDIA

- A. Digital Photographs: Provide color images in JPG format, produced by a digital camera with minimum sensor size of 12 megapixels.
- B. Digital Images: Submit digital media as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.

## 1.4 CONSTRUCTION PHOTOGRAPHS

- A. Preconstruction Photographs: Before commencement of the Work, take photographs of construction area, including existing items to remain during construction, from different vantage points.
- B. Periodic Construction Photographs: Take 10 photographs weekly. Select vantage points to show status of construction and progress since last photographs were taken.
- C. Final Completion Construction Photographs: Take 10 photographs after date of Substantial Completion for submission as Project Record Documents. Architect will inform photographer of desired vantage points.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION (Not Used)

END OF SECTION 013233



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## SECTION 013300 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
1. Submittal schedule requirements.
  2. Administrative and procedural requirements for submittals.

#### 1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

#### 1.3 SUBMITTAL SCHEDULE

- A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

#### 1.4 SUBMITTAL FORMATS

- A. Submittal Information: Include the following information in each submittal:
1. Project name.
  2. Date.
  3. Name of Architect.
  4. Name of Contractor.
  5. Name of firm or entity that prepared submittal.
  6. Names of subcontractor, manufacturer, and supplier.
  7. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier; and alphanumeric suffix for resubmittals.
  8. Category and type of submittal.
  9. Submittal purpose and description.
  10. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
  11. Drawing number and detail references, as appropriate.
  12. Indication of full or partial submittal.
  13. Location(s) where product is to be installed, as appropriate.
  14. Other necessary identification.
  15. Remarks.
  16. Signature of transmitter.

- B. Options: Identify options requiring selection by Architect.
- C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.
- D. Submittals for Utilizing Web-Based Project Management Software: Prepare submittals as PDF files, or other format indicated by Project management software.

## 1.5 SUBMITTAL PROCEDURES

- A. Architect's Digital Data Files: Electronic copies of digital data files of the Contract Drawings may be available from Architect for Contractor's use in preparing submittals.
  - 1. The digital data files are available under the following conditions:
    - a. Contractor shall execute a data licensing agreement in the form of Digital Data Letter of Agreement.
    - b. Digital data drawings are not to be considered Contract Documents as defined by the General Conditions for the Contract for Construction.
    - c. The Contract Documents executed or identified in the Owner/Contractor Agreement, shall prevail in case of an inconsistency with subsequent versions made through manipulatable electronic operations involving computers.
    - d. The Contractor shall not transfer or reuse Instruments of Service in electronic or machine-readable form without the prior written consent of the Architect.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
  - 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
  - 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
  - 2. Resubmittal Review: Allow 15 days for review of each resubmittal.
- D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

## 1.6 SUBMITTAL REQUIREMENTS

- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
  2. Mark each copy of each submittal to show which products and options are applicable.
  3. Include the following information, as applicable:
    - a. Manufacturer's catalog cuts.
    - b. Manufacturer's product specifications.
    - c. Standard color charts.
    - d. Statement of compliance with specified referenced standards.
    - e. Testing by recognized testing agency.
    - f. Application of testing agency labels and seals.
    - g. Notation of coordination requirements.
    - h. Availability and delivery time information.
  4. For equipment, include the following in addition to the above, as applicable:
    - a. Wiring diagrams that show factory-installed wiring.
    - b. Printed performance curves.
    - c. Operational range diagrams.
    - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
  5. Submit Product Data before Shop Drawings, and before or concurrent with Samples.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Identification of products.
    - b. Schedules.
    - c. Compliance with specified standards.
    - d. Notation of coordination requirements.
    - e. Notation of dimensions established by field measurement.
    - f. Relationship and attachment to adjoining construction clearly indicated.
    - g. Seal and signature of professional engineer if specified.
  2. Paper Sheet Size: Except for templates, patterns, and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches.
- C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other materials.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
  2. Identification: Permanently attach label on unexposed side of Samples that includes the following:
    - a. Project name and submittal number.
    - b. Product name and name of manufacturer.
    - c. Number and title of applicable Specification Section.
  3. Web-Based Project Management Software: Prepare submittals in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal.

4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
    - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
    - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
  5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
    - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
  6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
    - a. Number of Samples: Submit two sets of Samples. Architect will retain one Sample sets; remainder will be returned.
      - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
      - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
- E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.
- G. Certificates:
1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
  2. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
  3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

4. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
5. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.

H. Test and Research Reports:

1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for substrate preparation and primers required.
2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
  - a. Name of evaluation organization.
  - b. Date of evaluation.
  - c. Time period when report is in effect.
  - d. Product and manufacturers' names.
  - e. Description of product.
  - f. Test procedures and results.
  - g. Limitations of use.

1.7 DELEGATED DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
  1. If criteria indicated are insufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF file paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
  1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

## 1.8 CONTRACTOR'S REVIEW

- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
  - 1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.

## 1.9 ARCHITECT'S REVIEW

- A. Action Submittals: Architect will review each submittal, indicate corrections or revisions required, and return it.
  - 1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action, as follows:
    - a. No Exceptions Taken: The work covered by the submittal may proceed.
    - b. Note Markings: The work covered by the submittal may proceed provided it complies with both the Architect's notations and corrections on the submittal and the Contract Documents.
    - c. Rejected: Do not proceed with the Work covered by the submittal. Prepare a new submittal for a product that complies with the contract document.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Architect will return without review submittals received from sources other than Contractor.
- F. Submittals not required by the Contract Documents will be returned by Architect without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013300



## DIGITAL DATA LETTER OF AGREEMENT

An Agreement Between the Architect and \_\_\_\_\_ (the "Transferee," either Original or Third Party, as the case may be) for Transfer of Digital Data

<b>Architect:</b>	LS3P 101 N. Third Street, Suite 500 Wilmington, North Carolina 28401 Contact: Matt Bramstedt, AIA	<b>Transferee:</b>	Original 3 <sup>rd</sup> Party
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<b>Contract No.:</b>		<b>Project Name:</b>	Southport Elementary School
<b>Project No.:</b>	7201-218690		Window & Door Replacement
<b>Location:</b>	Supply, North Carolina		
<b>Date:</b>			

The Architect will provide the following Digital Data, dated as of the particular transmission, to the Transferee for information purposes only:

Digital Data was prepared using the following:

<b>Software:</b>	AutoCAD (.dwg)	<b>Version:</b>	
	MicroStation (.dgn)		
	Revit (.rvt)		

**Digital Data to be delivered via the following media:** Newforma Website posting

### TERMS AND CONDITIONS

1. The Architect and its consultants make no representation as to the compatibility of the Digital Data with any hardware or software. The Transferee shall notify the Architect within five (5) business days of any problems associated with accessing and/or using the Digital Data.
2. The Transferee acknowledges and agrees that the Digital Data can be modified unintentionally or otherwise. The Transferee acknowledges and agrees that the Architect and its consultants may remove all indications of ownership from the Digital Data prior to transmission.
3. All Digital Data shall be considered the property of the Architect and/or its consultants and shall not be used for other Projects, for additions to this Project, or for completion of this Project without the prior written permission of the Architect and/or its consultants. Digital Data shall not be re-transmitted by the Original Transferee to a Third Party Transferee without prior execution of an agreement identical to this Agreement between the Architect, the Original Transferee, and the Third Party Transferee. Under no circumstances shall the transmission of the Digital Data be considered a sale of goods or a sale of copyrights.
4. **THE ARCHITECT AND THE ARCHITECT'S CONSULTANTS HEREBY EXPRESSLY DISCLAIM ANY AND ALL WARRANTIES, BOTH EXPRESS AND IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF**



**MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AS WELL AS ANY WARRANTY OF ACCURACY, COMPLETENESS, AND/OR PERMANENCE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.** Addenda information and/or revisions made to the most current Digital Data after any date of transmission may not have been incorporated into the transmitted Digital Data. The Architect may update the Digital Data and give notice to authorized parties (or not) as is consistent with the Architect's professional skill and care and the orderly progress of the Work. In the event of a conflict between the Architect's printed instruments of service (whether sealed or not) and the Digital Data, the printed instruments of service shall govern. The Transferee acknowledges and agrees that the duty to determine the existence of any and all conflicts between the Digital Data and any other information upon which the Transferee relies rests solely upon the Transferee. The Digital Data shall not be considered Contract Documents or Construction Documents as defined by any General Conditions of Contract for Construction. The Digital Data is being provided on a strictly "AS IS" basis.

5. The use and/or provision of the Digital Data prepared by the Architect and/or its consultants shall not in any way reduce or obviate the Transferee's duty to check and coordinate dimensions, details, and quantities of materials as required to facilitate construction of the Project. Confirmation of existing conditions is the sole responsibility of the Transferee.

6. The Transferee agrees to the extent permitted by applicable law, to indemnify, hold harmless, release, and defend the Architect and/or its consultants, their officers, shareholders, employees, and sub-consultants from any and all injuries, claims, demands, expenses, suits, liabilities, losses, damages, costs, disputes, other matters in question, third party claims, pass-through claims, subrogated claims, and/or claim expenses related to the Digital Data, including but not limited to, attorneys' fees, expert witness fees, and court costs arising out of or in any way related to or connected with any negligent act and/or omission in the generation, provision, and/or use of the Digital Data by the Transferee and/or any of its subcontractors, suppliers, and/or consultants and waive any and all rights to such claims and causes of action.

7. The Transferee waives damages against the Architect for any and all injuries, claims, losses, expenses, damages, disputes, other matters in question, and/or claim expenses arising out of or relating to this Agreement and/or generation, provision, and/or use of the Digital Data, including, but not limited to, consequential damages and reasonable attorneys' fees and defense costs.

8. The Architect's and/or the Architect's consultants' liability to the Transferee and/or any of its subcontractors, suppliers, and/or consultants for any and all injuries, claims, losses, expenses, damages, disputes, other matters in question, third party claims, pass-through claims, subrogated claims, and/or claim expenses arising out of or relating to this Agreement and/or the Digital Data, including, but not limited to, reasonable attorneys' fees and defense costs, regardless of the nature of the claim or damage, shall not exceed, either individually or in the aggregate, the total amount of \$1,000.00. Such causes include, but are not limited to, the Architect's and/or the Architect's consultants' negligence, errors, omissions, strict liability, breach of contract, and/or breach of warranty.

9. Upon information and belief, there are no licensing or copyright fees due to others based on the transmission of the Digital Data, but to the extent that such unknown fees do exist, the Transferee agrees to pay the required fees and hold the Architect and/or its consultants harmless from any associated costs or penalties.

10. Upon execution of this Agreement, the Architect grants to the Transferee a non-exclusive, non-transferable (except as set forth herein) license to use the Digital Data solely and exclusively for informational purposes only, provided that the Transferee substantially performs its obligations, including prompt payment of all sums when due, under this Agreement.



11. Any purchase order number provided by the Transferee is for the Transferee's accounting purposes only. The Transferee acknowledges and agrees that purchase order terms and conditions are null, void, and inapplicable to this Agreement.

12. Payment of the service fee set forth herein is due prior to transmission of the Digital Data.

13. This Agreement constitutes the entire agreement between the parties relative to the Digital Data and shall be governed by the laws of the State of North Carolina.

**AUTHORIZED ACCEPTANCE**

by Architect:  
LS3P

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name and Title

\_\_\_\_\_  
Date

by Original Transferee:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name and Title

\_\_\_\_\_  
Date

by Third Party Transferee:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name and Title

\_\_\_\_\_  
Date



## SECTION 014000 - QUALITY REQUIREMENTS

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspection services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
  - 2. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

## 1.2 DEFINITIONS

- A. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- B. Field Quality-Control Tests and Inspections: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- C. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, assembly, and similar operations.
  - 1. Use of trade-specific terminology in referring to a Work result does not require that certain construction activities specified apply exclusively to specific trade(s).
- D. Mockups: Physical assemblies of portions of the Work constructed to establish the standard by which the Work will be judged. Mockups are not Samples.
  - 1. Mockups are used for one or more of the following:
    - a. Verify selections made under Sample submittals.
    - b. Demonstrate aesthetic effects.
    - c. Demonstrate the qualities of products and workmanship.
    - d. Demonstrate successful installation of interfaces between components and systems.
    - e. Perform preconstruction testing to determine system performance.
  - 2. Product Mockups: Mockups that may include multiple products, materials, or systems specified in a single Section.
  - 3. In-Place Mockups: Mockups constructed on-site in their actual final location as part of permanent construction.
- E. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria. Unless otherwise indicated, copies of reports of tests or inspections performed for other than the Project do not meet this definition.

- F. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- G. Source Quality-Control Tests and Inspections: Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.
- H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. The term "testing laboratory" has the same meaning as the term "testing agency."
- I. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- J. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor's quality-control services do not include contract administration activities performed by Architect.

### 1.3 DELEGATED DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
  - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated Design Services Statement: Submit a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

### 1.4 CONFLICTING REQUIREMENTS

- A. Conflicting Standards and Other Requirements: If compliance with two or more standards or requirements is specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, inform the Architect regarding the conflict and obtain clarification prior to proceeding with the Work. Refer conflicting requirements that are different, but apparently equal, to Architect for clarification before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified is the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

## 1.5 INFORMATIONAL SUBMITTALS

- A. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Permits, Licenses, and Certificates: For Owner's record, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

## 1.6 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
  - 1. Date of issue.
  - 2. Project title and number.
  - 3. Name, address, telephone number, and email address of testing agency.
  - 4. Dates and locations of samples and tests or inspections.
  - 5. Names of individuals making tests and inspections.
  - 6. Description of the Work and test and inspection method.
  - 7. Identification of product and Specification Section.
  - 8. Complete test or inspection data.
  - 9. Test and inspection results and an interpretation of test results.
  - 10. Record of temperature and weather conditions at time of sample taking and testing and inspection.
  - 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
  - 12. Name and signature of laboratory inspector.
  - 13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
  - 1. Statement on condition of substrates and their acceptability for installation of product.
  - 2. Statement that products at Project site comply with requirements.
  - 3. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
  - 4. Results of operational and other tests and a statement of whether observed performance complies with requirements.
  - 5. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
  - 1. Statement that equipment complies with requirements.
  - 2. Results of operational and other tests and a statement of whether observed performance complies with requirements.
  - 3. Other required items indicated in individual Specification Sections.

## 1.7 QUALITY ASSURANCE

- A. Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. **Manufacturer Qualifications:** A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.
- C. **Fabricator Qualifications:** A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. **Installer Qualifications:** A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. **Professional Engineer Qualifications:** A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.
- F. **Specialists:** Certain Specification Sections require that specific construction activities be performed by entities who are recognized experts in those operations. Specialists will satisfy qualification requirements indicated and engage in the activities indicated.
  - 1. Requirements of authorities having jurisdiction supersede requirements for specialists.
- G. **Testing and Inspecting Agency Qualifications:** An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspection indicated, as documented according to ASTM E329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
- H. **Manufacturer's Technical Representative Qualifications:** An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. **Factory-Authorized Service Representative Qualifications:** An authorized representative of manufacturer who is trained and approved by manufacturer to inspect, demonstrate, repair, and perform service on installations of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. **Preconstruction Testing:** Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
  - 1. Contractor responsibilities include the following:
    - a. Provide test specimens representative of proposed products and construction.
    - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
    - c. When testing is complete, remove test specimens and test assemblies, and mockups; do not reuse products on Project.

2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- K. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
1. Build mockups in location indicated or, if not indicated, as directed by Architect.
  2. Notify Architect seven days in advance of dates and times when mockups will be constructed.
  3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed to perform same tasks during the construction at Project.
  4. Demonstrate the proposed range of aesthetic effects and workmanship.
  5. Obtain Architect's approval of mockups before starting corresponding work, fabrication, or construction.
    - a. Allow seven days for initial review and each re-review of each mockup.
  6. Promptly correct unsatisfactory conditions noted by Architect's preliminary review, to the satisfaction of the Architect, before completion of final mockup.
  7. Approval of mockups by the Architect does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  8. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
  9. Demolish and remove mockups when directed unless otherwise indicated.

## 1.8 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspection they are engaged to perform.
  2. Costs for retesting and reinspecting construction that replaces or is necessitated by Work that failed to comply with the Contract Documents will be charged to Contractor.
- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.
1. Engage a qualified testing agency to perform quality-control services.
    - a. Contractor will not employ same entity engaged by Owner, unless agreed to in writing by Owner.
  2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspection will be performed.
  3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  4. Testing and inspection requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

- C. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- D. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  2. Determine the locations from which test samples will be taken and in which in-situ tests are conducted.
  3. Conduct and interpret tests and inspections and state in each report whether tested and inspected Work complies with or deviates from requirements.
  4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
  5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
  6. Do not perform duties of Contractor.
- E. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."
- F. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- G. Contractor's Associated Requirements and Services: Cooperate with agencies and representatives performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
  4. Facilities for storage and field curing of test samples.
  5. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  6. Security and protection for samples and for testing and inspection equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspection.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

## 3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
  - 1. Date test or inspection was conducted.
  - 2. Description of the Work tested or inspected.
  - 3. Date test or inspection results were transmitted to Architect.
  - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's and authorities' having jurisdiction reference during normal working hours.
  - 1. Submit log at Project closeout as part of Project Record Documents.

## 3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspection, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000



## SECTION 014200 - REFERENCES

## PART 1 - GENERAL

## 1.1 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

## 1.2 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
  - 1. For standards referenced by applicable building codes, comply with dates of standards as listed in building codes.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

### 1.3 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations: National Organizations of the U.S." or in Columbia Books' "National Trade & Professional Associations of the United States."
- B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is believed to be accurate as of the date of the Contract Documents.
  1. ICC - International Code Council; [www.iccsafe.org](http://www.iccsafe.org).
  2. ICC-ES - ICC Evaluation Service, LLC; [www.icc-es.org](http://www.icc-es.org).

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014200

## SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

## 1.2 USE CHARGES

- A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Architect, testing agencies, and authorities having jurisdiction.
- B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

## 1.3 INFORMATIONAL SUBMITTALS

- A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.
- B. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- C. Moisture- and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold. Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.
  - 1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and requirements for replacing water-damaged Work.
  - 2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
  - 3. Indicate methods to be used to avoid trapping water in finished work.

## 1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

- C. Accessible Temporary Egress: Comply with applicable provisions in the United States Access Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

## 1.5 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

## PART 2 - PRODUCTS

### 2.1 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. Self-Contained Toilet Units: Single-occupant units of chemical, aerated recirculation, or combustion type; vented; fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

### 3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
  - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- C. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

### 3.3 SUPPORT FACILITIES INSTALLATION

- A. Traffic Controls: Comply with requirements of authorities having jurisdiction.
  - 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
  - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- B. Parking: Use designated areas of Owner's existing parking areas for construction personnel.

- C. Storage and Staging: Use designated areas of Project site for storage and staging needs.
- D. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
  - 1. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
    - a. Provide temporary, directional signs for construction personnel and visitors.
  - 2. Maintain and touch up signs so they are legible at all times.
- E. Waste Disposal Facilities: Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- F. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
  - 1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

#### 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
  - 1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

#### 3.5 MOISTURE AND MOLD CONTROL

- A. Moisture and Mold Protection: Protect stored materials and installed Work in accordance with Moisture and Mold Protection Plan.
- B. Controlled Construction Period: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
  - 1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
  - 2. Use temporary or permanent HVAC system to control humidity within ranges specified for installed and stored materials.
  - 3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.

#### 3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
  - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
  2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

## SECTION 016000 - PRODUCT REQUIREMENTS

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

## 1.2 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
  2. New Products: Items that have not previously been incorporated into another project or facility. Salvaged items or items reused from other projects are not considered new products. Items that are manufactured or fabricated to include recycled content materials are considered new products, unless indicated otherwise.
  3. Comparable Product: Product by named manufacturer that is demonstrated and approved through the comparable product submittal process described in Part 2 "Comparable Products" Article, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. Published attributes and characteristics of basis-of-design product establish salient characteristics of products.
1. Evaluation of Comparable Products: In addition to the basis-of-design product description, product attributes and characteristics may be listed to establish the significant qualities related to type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other special features and requirements for purposes of evaluating comparable products of additional manufacturers named in the specification.
- C. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named manufacturer does not meet the other requirements of the specifications, select another named product or product from another named manufacturer that does meet the requirements of the specifications; submit a comparable product request or substitution request, if applicable.
- D. Comparable Product Request Submittal: An action submittal requesting consideration of a comparable product, including the following information:
1. Identification of basis-of-design product or fabrication or installation method to be replaced, including Specification Section number and title and Drawing numbers and titles.
  2. Data indicating compliance with the requirements specified in Part 2 "Comparable Products" Article.

### 1.3 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

### 1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products, using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

### 1.5 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
1. Manufacturer's Warranty: Written standard warranty form furnished by individual manufacturer for a particular product and issued in the name of the Owner or endorsed by manufacturer to Owner.
  2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner and issued in the name of the Owner or endorsed by manufacturer to Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
  2. Specified Form: When specified forms are included in the Project Manual, prepare a written document, using indicated form properly executed.
  3. See other Sections for specific content requirements and particular requirements for submitting special warranties.

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
  4. Where products are accompanied by the term "as selected," Architect will make selection.
  5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
- B. Product Selection Procedures:

1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
  2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
  3. Products: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements.
  4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
  5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications may additionally indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
    - a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.
- C. Visual Matching Specification: Where Specifications require the phrase "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or a similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

## 2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration of Comparable Products: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with the following requirements:
1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work.
  2. Detailed comparison of significant qualities of proposed product with those of the named basis-of-design product. Significant product qualities include attributes, such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.
  3. Evidence that proposed product provides specified warranty.
  4. List of similar installations for completed projects, with project names and addresses and names and addresses of architects and owners, if requested.
  5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

## SECTION 017300 - EXECUTION

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work, including, but not limited to, the following:
1. Installation of the Work.
  2. Cutting and patching.
  3. Progress cleaning.
  4. Protection of installed construction.
  5. Correction of the Work.

## 1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

## 1.3 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
1. Structural Elements: When cutting and patching structural elements, or when encountering the need for cutting and patching of elements whose structural function is not known, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
  2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
  3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
  4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
  - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials. Use materials that are not considered hazardous.
- B. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
  - 1. Examine walls and floors for suitable conditions where products and systems are to be installed.
  - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- B. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
  - 1. Description of the Work, including Specification Section number and paragraph, and Drawing sheet number and detail, where applicable.
  - 2. List of detrimental conditions, including substrates.
  - 3. List of unacceptable installation tolerances.
  - 4. Recommended corrections.
- C. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- C. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect in accordance with requirements in Section 013100 "Project Management and Coordination."

### 3.3 INSTALLATION

- A. Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb, and make horizontal work level.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure satisfactory results as judged by Architect. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations, so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.
- F. Tools and Equipment: Select tools or equipment that minimize production of excessive noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for Work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions with manufacturer.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  - 2. Allow for building movement, including thermal expansion and contraction.
  - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed Work are not indicated, arrange joints for the best visual effect, as judged by Architect. Fit exposed connections together to form hairline joints.

### 3.4 CUTTING AND PATCHING

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of Work to be cut.

- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching in accordance with requirements in Section 011000 "Summary."
- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  4. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  5. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as practicable, as judged by Architect. Provide materials and comply with installation requirements specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
    - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    - b. Restore damaged pipe covering to its original condition.
  3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch, corner to corner of wall and edge to edge of ceiling. Provide additional coats until patch blends with adjacent surfaces.
  4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.

- I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

### 3.5 PROGRESS CLEANING

- A. Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
  - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  - 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
  - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
    - a. Use containers intended for holding waste materials of type to be stored.
  - 4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where Work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - 1. Remove liquid spills promptly.
  - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 017419 "Construction Waste Management and Disposal."
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.6 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.
- C. Comply with manufacturer's written instructions for temperature and relative humidity.

### 3.7 CORRECTION OF THE WORK

- A. Repair or remove and replace damaged, defective, or nonconforming Work. Restore damaged substrates and finishes.
  - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Repair Work previously completed and subsequently damaged during construction period. Repair to like-new condition.
- C. Restore permanent facilities used during construction to their specified condition.
- D. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- E. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- F. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

## SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  - 1. Salvaging nonhazardous demolition and construction waste.
  - 2. Recycling nonhazardous demolition and construction waste.
  - 3. Disposing of nonhazardous demolition and construction waste.

## 1.2 DEFINITIONS

- A. Construction Waste: Building, structure, and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building, structure, and site improvement materials resulting from demolition operations.
- C. Disposal: Removal of demolition or construction waste and subsequent salvage, sale, recycling, or deposit in landfill, incinerator acceptable to authorities having jurisdiction, or designated spoil areas on Owner's property.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

## PART 2 - PRODUCTS

## 2.1 PERFORMANCE REQUIREMENTS

- A. Contractor is encouraged to recycle as much nonhazardous construction waste as practical, without incurring additional costs to the Owner.

## PART 3 - EXECUTION

## 3.1 WASTE MANAGEMENT AND DISPOSAL

- A. General: Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
- B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.

- C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged and recycled.
  2. Comply with Section 015000 "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

### 3.2 SALVAGING DEMOLITION WASTE

- A. Comply with requirements in Section 024119 "Selective Demolition" for salvaging demolition waste.
- B. Salvaged Items for Reuse in the Work:
1. Clean salvaged items.
  2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
  3. Store items in a secure area until installation.
  4. Protect items from damage during transport and storage.
  5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.

### 3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.
- C. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
- D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.
1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
    - a. Inspect containers and bins for contamination and remove contaminated materials if found.
  2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
  3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
  4. Store components off the ground and protect from the weather.
  5. Remove recyclable waste from Owner's property and transport to recycling receiver or processor as often as required to prevent overfilling bins.

### 3.4 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged or recycled, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.

1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
  2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.

END OF SECTION 017419



## SECTION 017700 - CLOSEOUT PROCEDURES

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for Contract closeout, including, but not limited to, the following:
  - 1. Substantial Completion procedures.
  - 2. Final completion procedures.
  - 3. Warranties.
  - 4. Final cleaning.

## 1.2 ACTION SUBMITTALS

- A. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- B. Certified List of Incomplete Items: Final submittal at Final Completion.

## 1.3 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.

## 1.4 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's "punch list"), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
  - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - 2. Submit closeout submittals specified in other Division 01 Sections, including Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
  - 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number.
  - 5. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Advise Owner of pending insurance changeover requirements.
2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
3. Perform preventive maintenance on equipment used prior to Substantial Completion.
4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 017900 "Demonstration and Training."
5. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
6. Complete final cleaning requirements.
7. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.

- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

#### 1.5 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:
1. Submit a final Application for Payment in accordance with Section 012900 "Payment Procedures."
  2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

#### 1.6 LIST OF INCOMPLETE ITEMS

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of spaces in sequential order, listed by room or space number.
  2. Organize items applying to each space by major element, including categories for ceilings, individual walls, floors, equipment, and building systems.
  3. Submit list of incomplete items in the following format:
    - a. MS Excel Electronic File: Architect will return annotated file.

## 1.7 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
- C. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
  - 1. Submit by uploading to web-based project software site.
- D. Warranties in Paper Form:
  - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
- E. Provide additional copies of each warranty to include in operation and maintenance manuals.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## PART 3 - EXECUTION

### 3.1 FINAL CLEANING

- A. Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
    - a. Clean Project site of rubbish, waste material, litter, and other foreign substances.
    - b. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
    - c. Remove debris and surface dust from limited-access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
    - d. Clean flooring, removing debris, dirt, and staining; clean according to manufacturer's recommendations.
    - e. Vacuum and mop concrete.
    - f. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.

- g. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
- h. Remove labels that are not permanent.
- i. Leave Project clean and ready for occupancy.

### 3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations required by Section 017300 "Execution" before requesting inspection for determination of Substantial Completion.

END OF SECTION 017700

## SECTION 017823 - OPERATION AND MAINTENANCE DATA

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
1. Operation and maintenance documentation directory manuals.
  2. Product maintenance manuals.

## 1.2 CLOSEOUT SUBMITTALS

- A. Submit operation and maintenance manuals indicated. Provide content for each manual as specified in individual Specification Sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
1. Architect will comment on whether content of operation and maintenance submittals is acceptable.
  2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operation and maintenance manuals in the following format:
1. Submit by uploading to web-based project software site. Enable reviewer comments on draft submittals.
  2. Submit three paper copies. Architect will return two copies.
- C. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.
1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's comments and prior to commencing demonstration and training.

## 1.3 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization of Manuals: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
1. Title page.
  2. Table of contents.
  3. Manual contents.
- B. Title Page: Include the following information:
1. Subject matter included in manual.
  2. Name and address of Project.
  3. Name and address of Owner.
  4. Date of submittal.
  5. Name and contact information for Contractor.
  6. Name and contact information for Architect.

7. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
  8. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

#### 1.4 PRODUCT MAINTENANCE MANUALS

- A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- B. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- C. Product Information: Include the following, as applicable:
1. Product name and model number.
  2. Manufacturer's name.
  3. Color, pattern, and texture.
  4. Material and chemical composition.
  5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
1. Inspection procedures.
  2. Types of cleaning agents to be used and methods of cleaning.
  3. List of cleaning agents and methods of cleaning detrimental to product.
  4. Schedule for routine cleaning and maintenance.
  5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
1. Include procedures to follow and required notifications for warranty claims.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017823



## SECTION 017839 - PROJECT RECORD DOCUMENTS

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for Project Record Documents, including the following:

1. Record Drawings.

## 1.2 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:

1. Number of Copies: Submit copies of Record Drawings as follows:
  - a. Initial Submittal:
    - 1) Submit PDF electronic files of scanned record prints.
    - 2) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
  - b. Final Submittal:
    - 1) Submit one paper-copy set(s) of marked-up record prints.
    - 2) Submit PDF electronic files of scanned Record Prints.
    - 3) Print each drawing, whether or not changes and additional information were recorded.

## 1.3 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.

1. Preparation: Mark record prints to show the actual installation, where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
  - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
  - b. Accurately record information in an acceptable drawing technique.
  - c. Record data as soon as possible after obtaining it.
  - d. Record and check the markup before enclosing concealed installations.
  - e. Cross-reference record prints to corresponding photographic documentation.
2. Content: Types of items requiring marking include, but are not limited to, the following:
  - a. Dimensional changes to Drawings.
  - b. Revisions to details shown on Drawings.
  - c. Depths of foundations.
  - d. Locations and depths of underground utilities.
  - e. Revisions to routing of piping and conduits.
  - f. Revisions to electrical circuitry.
  - g. Actual equipment locations.
  - h. Duct size and routing.

- i. Locations of concealed internal utilities.
      - j. Changes made by Change Order or Construction Change Directive.
      - k. Changes made following Architect's written orders.
      - l. Details not on the original Contract Drawings.
      - m. Field records for variable and concealed conditions.
      - n. Record information on the Work that is shown only schematically.
    3. Mark the Contract Drawings and Shop Drawings completely and accurately.
    4. Mark record prints with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
    5. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
  - B. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
    1. New drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
    2. Consult Architect for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared record Drawings into record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
  - C. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
    1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
    2. Identification: Provide project name, date, designation "PROJECT RECORD DRAWINGS", name of architect and name of contractor.
- 1.4 MAINTENANCE OF RECORD DOCUMENTS
- A. Maintenance of Record Documents: Store Record Documents in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017839

## SECTION 024119 - SELECTIVE DEMOLITION

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section Includes:
  - 1. Demolition and removal of selected portions of building or structure.
  - 2. Salvage of existing items to be reused or recycled.

## 1.2 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

## 1.3 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.

## 1.4 INFORMATIONAL SUBMITTALS

- A. Schedule of selective demolition activities with starting and ending dates for each activity.
- B. Predemolition photographs or video.

## 1.5 CLOSEOUT SUBMITTALS

- A. Inventory of items that have been removed and salvaged.

## 1.6 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
  - 1. Hazardous materials will be removed by Owner before start of the Work.
  - 2. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Maintain fire-protection facilities in service during selective demolition operations.
- G. Arrange selective demolition schedule so as not to interfere with Owner's operations.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSP A10.6 and NFPA 241.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Inventory and record the condition of items to be removed and salvaged.

### 3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

### 3.3 PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
- B. Remove temporary barricades and protections where hazards no longer exist.

### 3.4 SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
  2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
  4. Maintain fire watch during and for at least two hours after flame-cutting operations.

5. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
  6. Dispose of demolished items and materials promptly. Comply with requirements in Section 017419 "Construction Waste Management and Disposal."
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Removed and Salvaged Items:
1. Clean salvaged items.
  2. Pack or crate items after cleaning. Identify contents of containers.
  3. Store items in a secure area until delivery to Owner.
  4. Transport items to Owner's storage area designated by Owner.
  5. Protect items from damage during transport and storage.
- D. Removed and Reinstalled Items:
1. Clean and repair items to functional condition adequate for intended reuse.
  2. Pack or crate items after cleaning and repairing. Identify contents of containers.
  3. Protect items from damage during transport and storage.
  4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

### 3.5 CLEANING

- A. Remove demolition waste materials from Project site and recycle or dispose of them according to Section 017419 "Construction Waste Management and Disposal."
1. Do not allow demolished materials to accumulate on-site.
  2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
  3. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- B. Burning: Do not burn demolished materials.
- C. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119



## SECTION 079200 - JOINT SEALANTS

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section Includes:
  - 1. Silicone joint sealants.
  - 2. Butyl joint sealants.

## 1.2 ACTION SUBMITTALS

- A. Product Data: For each joint-sealant product.
- B. Samples: For each kind and color of joint sealant required.

## 1.3 WARRANTY

- A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
  - 1. Warranty Period: Two years from date of Substantial Completion.
- B. Special Manufacturer's Warranty: Manufacturer agrees to furnish joint sealants to repair or replace those joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
  - 1. Warranty Period: Five years from date of Substantial Completion.

## PART 2 - PRODUCTS

## 2.1 JOINT SEALANTS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.
- B. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

## 2.2 SILICONE JOINT SEALANTS

- A. Silicone, Nonstaining, S, NS, 100/50, NT: Nonstaining, single-component, nonsag, plus 100 percent and minus 50 percent movement capability, nontraffic-use, neutral-curing silicone joint sealant; ASTM C 920, Type S, Grade NS, Class 100/50, Use NT. No staining of substrates when tested according to ASTM C 1248.
  - 1. Products: Subject to compliance with requirements, provide one of the following:
    - a. Dow Corning Corporation; 790
    - b. GE Momentive SilPruf LM SCS2700
    - c. Pecora Corporation; 890

- d. Sika Corporation; 290
  - e. Tremco Incorporated; Spectrem 1
- 2. Exterior Joint Locations:
    - a. Exterior perimeter joints between veneer materials and frames of doors and windows.
  - 3. Interior Joint Locations:
    - a. Interior perimeter joints of exterior openings.

## 2.3 BUTYL JOINT SEALANTS

- A. Butyl-Rubber-Based Joint Sealants: ASTM C 1311.
  - 1. Products: Subject to compliance with requirements, provide one of the following:
    - a. Bostik; Chem-Calk 300
    - b. Pecora; BC-158
    - c. Tremco; General Purpose Butyl Sealant
  - 2. Exterior Joint Locations: Under door thresholds.

## 2.4 JOINT-SEALANT BACKING

- A. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin) or Type B (bicellular material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
- B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.

## 2.5 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

## PART 3 - EXECUTION

### 3.1 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with ASTM C 1193 and joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

- C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
  - 1. Place sealants so they directly contact and fully wet joint substrates.
  - 2. Completely fill recesses in each joint configuration.
  - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
  - 1. Provide concave joint profile per Figure 8A in ASTM C 1193 unless otherwise indicated.

END OF SECTION 079200



## SECTION 084113 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section Includes:
  - 1. Aluminum-framed storefront systems.
  - 2. Aluminum-framed entrance door systems.

## 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For aluminum-framed entrances and storefronts. Include plans, elevations, sections, full-size details, and attachments to other work.
  - 1. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.
  - 2. Include point-to-point wiring diagrams.
- C. Delegated Design Submittal: For aluminum-framed entrances and storefronts, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

## 1.3 INFORMATIONAL SUBMITTALS

- A. Energy Performance Certificates: NFRC-certified energy performance values from manufacturer.
- B. Field quality-control reports.

## 1.4 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

## 1.5 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of aluminum-framed entrances and storefronts that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: Five years from date of Substantial Completion.
- B. Special Finish Warranty, Anodized Finishes: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of anodized finishes within specified warranty period.
  - 1. Warranty Period: 10 years from date of Substantial Completion.

## PART 2 - PRODUCTS

## 2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a professional engineer, who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated, to design aluminum-framed entrances and storefronts.
- B. Structural Loads: Wind loads as indicated on Drawings.
- C. Deflection of Framing Members Supporting Glass: At design wind load, as follows:
1. Deflection Normal to Wall Plane: Limited to 1/175 of clear span for spans of up to 13 feet 6 inches and to 1/240 of clear span plus 1/4 inch for spans greater than 13 feet 6 inches.
  2. Deflection Parallel to Glazing Plane: Limited to amount not exceeding that which reduces glazing bite to less than 75 percent of design dimension and that which reduces edge clearance between framing members and glazing or other fixed components to less than 1/8 inch.
- D. Structural: Test in accordance with ASTM E330/E330M as follows:
1. When tested at positive and negative wind-load design pressures, storefront assemblies, including entrance doors, do not evidence deflection exceeding specified limits.
  2. When tested at 150 percent of positive and negative wind-load design pressures, storefront assemblies, including entrance doors and anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
  3. Test Durations: As required by design wind velocity, but not less than 10 seconds.
- E. Water Penetration under Static Pressure: Test in accordance with ASTM E331 as follows:
1. No evidence of water penetration through fixed glazing and framing areas, including entrance doors, when tested in accordance with a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 6.24 lbf/sq. ft.
- F. Energy Performance: Certified and labeled by manufacturer for energy performance as follows:
1. Thermal Transmittance (U-factor):
    - a. Fixed Glazing and Framing Areas: U-factor for the system of not more than 0.45 Btu/sq. ft. x h x deg F as determined in accordance with NFRC 100.
    - b. Entrance Doors: U-factor of not more than 0.77 Btu/sq. ft. x h x deg F as determined in accordance with NFRC 100.
  2. Solar Heat-Gain Coefficient (SHGC):
    - a. Fixed Glazing and Framing Areas: SHGC for the system of not more than 0.25 as determined in accordance with NFRC 200.
  3. Air Leakage:
    - a. Fixed Glazing and Framing Areas: Air leakage for the system of not more than 0.06 cfm/sq. ft. at a static-air-pressure differential of 6.24 lbf/sq. ft. when tested in accordance with ASTM E283.
    - b. Entrance Doors: Air leakage of not more than 1.0 cfm/sq. ft. at a static-air-pressure differential of 1.57 lbf/sq. ft.
  4. Condensation Resistance Factor (CRF):
    - a. Fixed Glazing and Framing Areas: CRF for the system of not less than 50 as determined in accordance with AAMA 1503.

- G. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes.
1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

## 2.2 STOREFRONT SYSTEMS

- A. Manufacturer: Subject to compliance with requirements, provide products by one of the following:
1. EFCO Corporation
  2. Kawneer
  3. Oldcastle BuildingEnvelope
  4. Tubelite
  5. United States Aluminum
  6. Wausau Window and Wall Systems
  7. YKK AP America Inc.
- B. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.
1. Exterior Framing Construction: Thermally broken.
  2. Glazing System: Retained mechanically with gaskets on four sides.
  3. Finish: Clear anodic finish.
  4. Fabrication Method: Field-fabricated stick system.
  5. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
  6. Steel Reinforcement: As required by manufacturer.
- C. Backer Plates: Manufacturer's standard, continuous backer plates for framing members, if not integral, where framing abuts adjacent construction.
- D. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.

## 2.3 ENTRANCE DOOR SYSTEMS

- A. Entrance Doors: Manufacturer's standard glazed entrance doors for manual-swing or automatic operation.
1. Door Construction: 2- to 2-1/4-inch overall thickness, with minimum 0.125-inch- thick, extruded-aluminum tubular rail and stile members. Mechanically fasten corners with reinforcing brackets that are deeply penetrated and fillet welded or that incorporate concealed tie rods.
    - a. Thermal Construction: High-performance plastic connectors separate aluminum members exposed to the exterior from members exposed to the interior.
  2. Door Design: Wide stile; 5-inch nominal width.
  3. Glazing Stops and Gaskets: Beveled, snap-on, extruded-aluminum stops and preformed gaskets.
    - a. Provide nonremovable glazing stops on outside of door.

## 2.4 ENTRANCE DOOR HARDWARE

- A. Entrance Door Hardware: Hardware not specified in this Section is specified in Section 087100 "Door Hardware."
- B. Weather Stripping: Manufacturer's standard replaceable components.

1. Compression Type: Made of ASTM D2000 molded neoprene or ASTM D2287 molded PVC.
2. Sliding Type: AAMA 701/702, made of wool, polypropylene, or nylon woven pile with nylon-fabric or aluminum-strip backing.

## 2.5 GLAZING

- A. Glazing: Comply with Section 088000 "Glazing."
- B. Glazing Gaskets: Manufacturer's standard sealed-corner pressure-glazing system of black, resilient elastomeric glazing gaskets, setting blocks, and shims or spacers.
- C. Glazing Sealants: As recommended by manufacturer.

## 2.6 MATERIALS

- A. Sheet and Plate: ASTM B209.
- B. Extruded Bars, Rods, Profiles, and Tubes: ASTM B221.
- C. Structural Profiles: ASTM B308/B308M.
- D. Steel Reinforcement:
  1. Structural Shapes, Plates, and Bars: ASTM A36/A36M.
  2. Cold-Rolled Sheet and Strip: ASTM A1008/A1008M.
  3. Hot-Rolled Sheet and Strip: ASTM A1011/A1011M.
- E. Steel Reinforcement Primer: Manufacturer's standard zinc-rich, corrosion-resistant primer complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pretreatment. Select surface preparation methods in accordance with recommendations in SSPC-SP COM, and prepare surfaces in accordance with applicable SSPC standard.

## 2.7 FABRICATION

- A. Form or extrude aluminum shapes before finishing.
- B. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.
- C. Fabricate components that, when assembled, have the following characteristics:
  1. Profiles that are sharp, straight, and free of defects or deformations.
  2. Accurately fitted joints with ends coped or mitered.
  3. Physical and thermal isolation of glazing from framing members.
  4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
  5. Provisions for field replacement of glazing from interior.
  6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- D. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.

- E. Entrance Door Frames: Reinforce as required to support loads imposed by door operation and for installing entrance door hardware.
- F. Entrance Doors: Reinforce doors as required for installing entrance door hardware.
- G. Entrance Door Hardware Installation: Factory install entrance door hardware to the greatest extent possible. Cut, drill, and tap for factory-installed entrance door hardware before applying finishes.
- H. After fabrication, clearly mark components to identify their locations in Project in accordance with Shop Drawings.

## 2.8 ALUMINUM FINISHES

- A. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Comply with manufacturer's written instructions.
- B. Do not install damaged components.
- C. Fit joints to produce hairline joints free of burrs and distortion.
- D. Rigidly secure nonmovement joints.
- E. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
- F. Seal perimeter and other joints watertight unless otherwise indicated.
- G. Metal Protection:
  - 1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with materials recommended by manufacturer for this purpose or by installing nonconductive spacers.
  - 2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
- H. Set continuous sill members and flashing in full sealant bed, as specified in Section 079200 "Joint Sealants," to produce weathertight installation.
- I. Install joint filler behind sealant as recommended by sealant manufacturer.
- J. Install components plumb and true in alignment with established lines and grades.

### 3.2 INSTALLATION OF GLAZING

- A. Install glazing as specified in Section 088000 "Glazing."

### 3.3 INSTALLATION OF ALUMINUM-FRAMED ENTRANCE DOORS

- A. Install entrance doors to produce smooth operation and tight fit at contact points.
  - 1. Exterior Doors: Install to produce weathertight enclosure and tight fit at weather stripping.
  - 2. Field-Installed Entrance Door Hardware: Install surface-mounted entrance door hardware in accordance with entrance door hardware manufacturers' written instructions using concealed fasteners to greatest extent possible.

### 3.4 FIELD QUALITY CONTROL

- A. Contractor/Installer Testing: Contractor/Installer shall be prepared to provide the following minimum testing as part of the Work.
  - 1. Testing shall be in compliance with AAMA 501.2. Testing shall be performed at approximately 10 percent and 50 percent completion. A minimum of 2 test areas to be tested at each phase. Additional testing may be required if installation crew changes or if construction is suspended and resumed after an extended period of time. Coordinate with Architect's representative for areas to be tested, testing times, and representative's availability to monitor tests.

END OF SECTION 084113

## SECTION 085113 - ALUMINUM WINDOWS

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section includes aluminum windows for exterior locations.

## 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include construction details, material descriptions, glazing and fabrication methods, dimensions of individual components and profiles, hardware, and finishes for aluminum windows.
- B. Shop Drawings: Include plans, elevations, sections, hardware, accessories, insect screens, operational clearances, and details of installation, including anchor, flashing, and sealant installation.

## 1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A manufacturer capable of fabricating aluminum windows that meet or exceed performance requirements indicated and of documenting this performance by test reports and calculations.
- B. Installer Qualifications: An installer acceptable to aluminum window manufacturer for installation of units required for this Project.

## 1.4 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace aluminum windows that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Failure to meet performance requirements.
    - b. Structural failures including excessive deflection, water leakage, condensation, and air infiltration.
    - c. Faulty operation of movable sash and hardware.
    - d. Deterioration of materials and finishes beyond normal weathering.
    - e. Failure of insulating glass.
  - 2. Warranty Period:
    - a. Window: 10 years from date of Substantial Completion.
    - b. Glazing Units: 10 years from date of Substantial Completion.
    - c. Aluminum Finish: 10 years from date of Substantial Completion.

## PART 2 - PRODUCTS

## 2.1 WINDOW PERFORMANCE REQUIREMENTS

- A. Product Standard: Comply with AAMA/WDMA/CSA 101/I.S.2/A440 for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.
  - 1. Window Certification: AAMA certified with label attached to each window.
- B. Performance Class and Grade: AAMA/WDMA/CSA 101/I.S.2/A440 as follows:
  - 1. Minimum Performance Class: CW.
  - 2. Minimum Performance Grade: 35.
- C. Thermal Transmittance: NFRC 100 maximum whole-window U-factor of 0.32 Btu/sq. ft. x h x deg F.
- D. Solar Heat-Gain Coefficient (SHGC): NFRC 200 maximum whole-window SHGC of 0.25.
- E. Thermal Movements: Provide aluminum windows, including anchorage, that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
  - 1. Temperature Change: 120 deg F ambient; 180 deg F material surfaces.

## 2.2 ALUMINUM WINDOWS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Gerkin Windows and Doors
  - 2. Graham Architectural Products Corporation
  - 3. Kawneer North America, an Arconic company
  - 4. Oldcastle BuildingEnvelope
  - 5. Peerless Products, Inc.
  - 6. YKK AP America Inc.
- B. Type: Horizontal sliding.
- C. Frames and Sashes: Aluminum extrusions complying with AAMA/WDMA/CSA 101/I.S.2/A440.
  - 1. Thermally Improved Construction: Fabricate frames, sashes, and muntins with an integral, concealed, low-conductance thermal barrier located between exterior materials and window members exposed on interior side in a manner that eliminates direct metal-to-metal contact.
- D. Insulating-Glass Units: ASTM E2190.
  - 1. Glass: ASTM C1036, Type 1, Class 1, q3.
    - a. Tint: Crystal gray.
    - b. Kind: Fully tempered.
  - 2. Lites: Two.
  - 3. Filling: Fill space between glass lites with air.
  - 4. Low-E Coating: Sputtered on second surface.

- E. Glazing System: Manufacturer's standard factory-glazing system that produces weathertight seal.
  - 1. Dual Glazing System: Insulating-glass unit
- F. Hardware, General: Provide manufacturer's standard hardware fabricated from aluminum, stainless steel, carbon steel complying with AAMA 907, or other corrosion-resistant material compatible with adjacent materials; designed to smoothly operate, tightly close, and securely lock windows, and sized to accommodate sash weight and dimensions.
- G. Horizontal-Sliding Window Hardware:
  - 1. Sill Cap/Track: Extruded-aluminum track with clear anodized finish of dimensions and profile indicated; designed to comply with performance requirements indicated and to drain to the exterior.
  - 2. Locks and Latches: Self-latching, spring loaded locking mechanism, automatically engaging when window is closed.
  - 3. Roller Assemblies: Low-friction design.
- H. Weather Stripping: Provide full-perimeter weather stripping for each operable sash unless otherwise indicated.
- I. Fasteners: Noncorrosive and compatible with window members, trim, hardware, anchors, and other components.
  - 1. Exposed Fasteners: Do not use exposed fasteners to greatest extent possible. For application of hardware, use fasteners that match finish hardware being fastened.

## 2.3 ACCESSORIES

- A. Subsills: Thermally broken, extruded-aluminum subsills in configurations indicated on Drawings.
- B. Interior Trim: Extruded-aluminum profiles in sizes and configurations indicated on Drawings.
- C. Panning Trim: Extruded-aluminum profiles in sizes and configurations indicated on Drawings.
- D. Receptor System: Two-piece, snap-together, thermally broken, extruded-aluminum receptor system that anchors windows in place.

## 2.4 INSECT SCREENS

- A. General: Fabricate insect screens to integrate with window frame.
  - 1. Type and Location: Full, outside for sliding sashes.
- B. Aluminum Frames: Manufacturer's standard aluminum alloy complying with SMA 1004 or SMA 1201.
- C. Glass-Fiber Mesh Fabric: 20-by-20 or 20-by-30 mesh of PVC-coated, glass-fiber threads; woven and fused to form a fabric mesh resistant to corrosion, shrinkage, stretch, impact damage, and weather deterioration. Comply with ASTM D3656/D3656M.

## 2.5 FABRICATION

- A. Fabricate aluminum windows in sizes indicated. Include a complete system for assembling components and anchoring windows.

- B. Glaze aluminum windows in the factory.
- C. Weather strip each operable sash to provide weathertight installation.
- D. Weep Holes: Provide weep holes and internal passages to conduct infiltrating water to exterior.
- E. Mullions: Provide mullions and cover plates, matching window units, complete with anchors for support to structure and installation of window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections. Provide mullions and cover plates capable of withstanding design wind loads of window units.
- F. Complete fabrication, assembly, finishing, hardware application, and other work in the factory to greatest extent possible. Disassemble components only as necessary for shipment and installation.

## 2.6 ALUMINUM FINISHES

- A. Class I, Clear Anodic Finish: AA-M12C22A41 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Comply with manufacturer's written instructions for installing windows, hardware, accessories, and other components. For installation procedures and requirements not addressed in manufacturer's written instructions, comply with installation requirements in ASTM E2112.
- B. Install windows level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction to produce weathertight construction.
- C. Install windows and components to drain condensation, water penetrating joints, and moisture migrating within windows to the exterior.
- D. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.
- E. Adjust operating sashes and hardware for a tight fit at contact points and weather stripping for smooth operation and weathertight closure.
- F. Clean exposed surfaces immediately after installing windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.
- G. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

END OF SECTION 085113

## SECTION 088000 - GLAZING

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. Section Includes:
1. Insulating glass.
  2. Glazing sealants.
  3. Glazing tapes.
  4. Miscellaneous glazing materials.

## 1.2 COORDINATION

- A. Coordinate glazing channel dimensions to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances to achieve proper safety margins for glazing retention under each design load case, load case combination, and service condition.

## 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Glass Samples: For each type of glass product other than clear monolithic vision glass; 12 inches square.
- C. Delegated Design Submittal: For glass indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by qualified professional engineer responsible for their preparation.

## 1.4 QUALITY ASSURANCE

- A. Fabricated-Glass Manufacturer Qualifications: A qualified manufacturer of fabricated glass units who is approved and certified by primary glass manufacturer.
- B. Installer Qualifications: A qualified glazing contractor for this Project who is certified under the North American Contractor Certification Program (NACC) for Architectural Glass & Metal (AG&M) contractors.

## 1.5 WARRANTY

- A. Manufacturer's Special Warranty for Coated-Glass Products: Manufacturer agrees to replace coated-glass units that deteriorate within specified warranty period. Deterioration of coated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning coated glass contrary to manufacturer's written instructions. Defects include peeling, cracking, and other indications of deterioration in coating.
1. Warranty Period: 10 years from date of Substantial Completion.
- B. Manufacturer's Special Warranty for Insulating Glass: Manufacturer agrees to replace insulating-glass units that deteriorate within specified warranty period. Deterioration of insulating glass is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and

cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is obstruction of vision by dust, moisture, or film on interior surfaces of glass.

1. Warranty Period: 10 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturer: Subject to compliance with requirements, provide products by one of the following:
  1. AGC Glass Company North America, Inc.
  2. Guardian
  3. Vitro Glass

### 2.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design glazing.
- B. Structural Performance: Glazing shall withstand the following design loads within limits and under conditions indicated determined in accordance with the IBC and ASTM E1300:
  1. Design Wind Pressures: As indicated on Drawings.
  2. Maximum Lateral Deflection: For glass supported on all four edges, limit center-of-glass deflection at design wind pressure to not more than 1/50 times the short-side length or 1 inch, whichever is less.
  3. Thermal Loads: Design glazing to resist thermal stress breakage induced by differential temperature conditions and limited air circulation within individual glass lites and insulated glazing units.
- C. Safety Glazing: Where safety glazing is indicated, provide glazing that complies with 16 CFR 1201, Category II.
- D. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:
  1. U-Factors: Center-of-glazing values, in accordance with NFRC 100 and based on most current non-beta version of LBL's WINDOW computer program, expressed as Btu/sq. ft. x h x deg F.
  2. SHGC and Visible Transmittance: Center-of-glazing values, in accordance with NFRC 200 and based on most current non-beta version of LBL's WINDOW computer program.
  3. Visible Reflectance: Center-of-glazing values, in accordance with NFRC 300.

### 2.3 GLASS PRODUCTS, GENERAL

- A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below unless more stringent requirements are indicated. See these publications for glazing terms not otherwise defined in this Section or in referenced standards.
  1. NGA Publications: "Glazing Manual."
  2. IGM Publication for Insulating Glass: SIGMA TM-3000, "North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial and Residential Use."

- B. Safety Glazing Labeling: Where safety glazing is indicated, permanently mark glazing with certification label of the SGCC or another certification agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.
- C. Insulating-Glass Certification Program: Permanently marked either on spacers or on at least one component lite of units with appropriate certification label of the IGCC.
- D. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass that complies with performance requirements and is not less than thickness indicated.
  - 1. Minimum Glass Thickness for Exterior Lites: 6 mm.

## 2.4 GLASS PRODUCTS

- A. Fully Tempered Float Glass: ASTM C1048, Kind FT (fully tempered), Condition A (uncoated) unless otherwise indicated, Type I, Class 1 (clear) or Class 2 (tinted) as indicated, Quality-Q3.
  - 1. Fabrication Process: By horizontal (roller-hearth) process with roll-wave distortion parallel to bottom edge of glass as installed unless otherwise indicated.

## 2.5 INSULATING GLASS

- A. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified in accordance with ASTM E2190.
  - 1. Sealing System: Dual seal, with manufacturer's standard primary and secondary sealants.
  - 2. Perimeter Spacer: Manufacturer's standard spacer material and construction.
  - 3. Desiccant: Molecular sieve or silica gel, or a blend of both.

## 2.6 GLAZING SEALANTS

- A. General:
  - 1. Compatibility: Compatible with one another and with other materials they contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
  - 2. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
  - 3. Colors of Exposed Glazing Sealants: As selected by Architect from manufacturer's full range of industry colors.
- B. Neutral-Curing Silicone Glazing Sealant, Class 100/50: Complying with ASTM C920, Type S, Grade NS, Use NT.
  - 1. Products: Subject to compliance with requirements, provide one of the following:
    - a. Dow Corning Corporation; 790 Silicone Building Sealant.
    - b. GE Construction Sealants; Momentive Performance Materials Inc.; SCS2700 SilPruf LM.
    - c. May National Associates, Inc.; a subsidiary of Sika Corporation; Bondaflex Sil 290.
    - d. Pecora Corporation; 890NST.
    - e. Sika Corporation; SikaSil WS-290.
    - f. Tremco Incorporated; Spectrem 1.

## 2.7 GLAZING TAPES

- A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100 percent solids elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; and complying with ASTM C1281 and AAMA 800 for products indicated below:
  - 1. AAMA 804.3 tape, where indicated.
  - 2. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
  - 3. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.
- B. Expanded Cellular Glazing Tapes: Closed-cell, PVC foam tapes; factory coated with adhesive on both surfaces; and complying with AAMA 800 for the following types:
  - 1. AAMA 810.1, Type 1, for glazing applications in which tape acts as primary sealant.
  - 2. AAMA 810.1, Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.

## 2.8 MISCELLANEOUS GLAZING MATERIALS

- A. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.
- B. Setting Blocks: Type recommended in writing by sealant or glass manufacturer.
  - 1. Elastomeric material with Shore A durometer hardness of 85, plus or minus 5.
- C. Spacers: Type recommended in writing by sealant or glass manufacturer.
  - 1. Elastomeric blocks or continuous extrusions of hardness required by glass manufacturer to maintain glass lites in place for installation indicated.
- D. Edge Blocks: Type recommended in writing by sealant or glass manufacturer.
  - 1. Elastomeric material with Shore A durometer hardness per manufacturer's written instructions.
- E. Cylindrical Glazing Sealant Backing: ASTM C1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.

## PART 3 - EXECUTION

### 3.1 GLAZING, GENERAL

- A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.
- B. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass includes glass with edge damage or other imperfections that, when installed, could weaken glass, impair performance, or impair appearance.
- C. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.

- D. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
- E. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
- F. Provide spacers for glass lites where length plus width is larger than 50 inches.
- G. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and in accordance with requirements in referenced glazing publications.

### 3.2 TAPE GLAZING

- A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.
- B. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.
- C. Cover vertical framing joints by applying tapes to heads and sills first, then to jambs. Cover horizontal framing joints by applying tapes to jambs, then to heads and sills.
- D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
- E. Apply heel bead of elastomeric sealant.
- F. Center glass lites in openings on setting blocks, and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.
- G. Apply cap bead of elastomeric sealant over exposed edge of tape.

### 3.3 GASKET GLAZING (DRY)

- A. Cut compression gaskets to lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.
- B. Insert soft compression gasket between glass and frame or fixed stop so it is securely in place with joints miter cut and bonded together at corners.
- C. Installation with Drive-in Wedge Gaskets: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended in writing by gasket manufacturer.
- D. Installation with Pressure-Glazing Stops: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket. Install dense compression gaskets and pressure-glazing stops, applying pressure uniformly to compression gaskets. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended in writing by gasket manufacturer.

- E. Install gaskets so they protrude past face of glazing stops.

### 3.4 SEALANT GLAZING (WET)

- A. Install continuous spacers, or spacers combined with cylindrical sealant backing, between glass lites and glazing stops to maintain glass face clearances and to prevent sealant from extruding into glass channel and blocking weep systems until sealants cure. Secure spacers or spacers and backings in place and in position to control depth of installed sealant relative to edge clearance for optimum sealant performance.
- B. Force sealants into glazing channels to eliminate voids and to ensure complete wetting or bond of sealant to glass and channel surfaces.
- C. Tool exposed surfaces of sealants to provide a substantial wash away from glass.

### 3.5 INSULATING GLASS SCHEDULE

- A. Low-E-Coated, Tinted Insulating Glass:
  - 1. Basis of Design: Guardian SuperNeutral; SNX 62/27
  - 2. Overall Unit Thickness: 1 inch.
  - 3. Minimum Thickness of Each Glass Lite: 6 mm.
  - 4. Outdoor Lite: Fully tempered, tinted float glass.
  - 5. Tint Color: Guardian; Crystal Gray.
  - 6. Interspace Content: Air or argon.
  - 7. Indoor Lite: Fully tempered, clear float glass.
  - 8. Low-E Coating: Sputtered on second surface.
  - 9. Winter Nighttime U-Factor: 0.29 maximum.
  - 10. Summer Daytime U-Factor: 0.27 maximum.
  - 11. Visible Light Transmittance: 44 percent minimum.
  - 12. SHGC: 0.22 maximum.
  - 13. Safety glazing required.

END OF SECTION 088000