

PROJECT MANUAL

DIVISION 0 - DIVISION 14 SPECIFICATIONS

MAY 2015

SAVANNAH - CHATHAM COUNTY
PUBLIC SCHOOL SYSTEM

COASTAL MIDDLE SCHOOL – ROOFING REPLACEMENT

PROJECT NO.
SCCPSS C16-04

CogdellMendralaArchitects

A Woman Owned Small Business | DBE

517 East Congress Street

Savannah, GA 31401

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Savannah-Chatham County Public School System
208 Bull Street/Savannah, GA 31401 / 912.395.5572

June 14, 2015

Ladies and Gentlemen:

The Savannah-Chatham County Public School System would like to take the opportunity to announce that we are requesting Bids for **General Contracting Services for Coastal Middle School Reroofing Replacement under BID NO. C16-04 (ESPLOST)**, by a firm authorized to do business in the State of Georgia with General Contracting experience. **A Mandatory Pre-Bid Conference will be conducted at 10:00 A.M. on Tuesday, June 30, 2015 at Coastal Georgia Middle School, located at 4595 US Highway 80 East, Savannah, Georgia, 31410.** Bidders will meet at the front entrance of the building. An accompanied site visitation will follow. **Bids will not be accepted from any firm that is not represented at the Mandatory Pre-Bid Conference.**

All bids must be delivered to the Savannah-Chatham County Public School System's Purchasing Department, Room 213, 208 Bull Street, Savannah, Georgia, 31401. **The advertising dates for BID C16-04 (ESPLOST) are June 14, 2015 to June 27, 2015 and June 28, 2015 to July 16, 2015. Bids will be accepted prior to 11:00 A.M. on Thursday, July 16, 2015 at which time they will be publicly opened and registered.** If you are unable to submit a response at this time, and wish to remain on our list of potential providers, complete and return the LMWBE Information Document found in this packet marked "No Bid". All bids will be evaluated as described in the attached document. Time is of the essence and any bids received after the announced time and date for submittal whether by mail or otherwise, will be rejected. The time of receipt shall be determined by the time clock stamp in the Purchasing Department. Bidders are responsible for ensuring that their bids are delivered to and stamped by the Purchasing Department personnel before the deadline indicated. **Late bids received will be so noted in the bid file in order that the vendor's name will not be removed from the subject commodity/service list. Late bids will not be considered and will be returned to the bidder unopened.**

Enclosed is a bid packet which outlines the items and services being solicited and instructions which describe the submission of the bid.

It is the policy of the Board of Education to maximize the utilization of qualified local, minority, and women owned business enterprises (LMWBEs) who provide professional services or who serve as prime contractors, subcontractors or suppliers as a part of the District's facilities construction, maintenance and repair programs. The Board expects that prime contractors on district construction projects make and document good faith efforts to maximize the utilization of qualified LMWBEs as subcontractors and suppliers. The Board also promotes capacity building within the local construction community and encourages the use of partnerships, teaming and mentorships to provide LMWBEs with relevant and necessary experiences to grow their businesses.

All bids must be submitted in duplicate in a sealed envelope, with the bid number, title and submittal date and time clearly identified on the outside of the envelope. If bid materials require additional envelopes, then all mailing articles must be combined together with the marked envelope on top. **A bid bond, in the amount of 5% of the total bid amount must be submitted with bid. Successful bidder will be required to provide performance and payment bonds within 14 days of Intent to Award Notification.** If you wish to receive a copy of the bid results, enclose a self-addressed envelope and a bid tabulation will be mailed to you.

Please include in the bid package a copy of the current business license if the prospective vendor is located within the City of Savannah and the County of Chatham and a copy of the General Contractor's State of Georgia License. If you have any questions concerning this bid, please submit them in writing to the address above or fax them to (912) 201-7648. In addition, all communication relating to this bid solicitation, either before or after the bid opens, must be coordinated through the Purchasing Department. Your interest and participation in submitting a bid will be appreciated.

Very truly yours,

Sabrina Scales, C.P.P.B.
Purchasing Director

BID REQUIREMENTS

INVITATION TO BID #C16-04 (ESPLOST)

The Savannah-Chatham County Public School System hereinafter referred to as the "District" will receive sealed bids from General Contractors at 208 Bull Street, Savannah, GA 31401 in Room 213. Bids must be physically placed in the hands of the District's Purchasing Department by **11:00 A.M., on Thursday, July 16, 2015**, the time legally prevailing in Savannah, Georgia for **Bid #C16-04 (ESPLOST) General Contracting Services for Coastal Middle School Reroofing Replacement.** At the time and place noted above, the bids will be publicly opened and announced.

Bidding Documents, including plans and specifications, may be viewed and purchased at www.cdrepro.com. (Click on Login to DFS and register as a new user.) For technical support, please contact Larry Arkwright at Clayton Digital Reprographics, 912-447-0708 or 912-447-5445. Documents are also available for inspection and review at the listed locations. The "Public Inspection" Bidding Documents are not to be used as bid working sets but are for informational purposes and Bidding Sets are available as described previously:

1. Savannah-Chatham County Public Schools Facilities Construction Department, 208 Bull Street, Room 305, Savannah, GA 31401.
2. City of Savannah Entrepreneurial Center 801 East Gwinnett Street, Savannah, GA 31404.

Bidders are cautioned that acquisition of Bidding Documents through any source other than Clayton Digital Reprographics, Inc. is not advisable. Acquisition of Bidding Documents from unauthorized sources places the bidder at risk of receiving incomplete or inaccurate information upon which to base a bid.

A Mandatory Pre-Bid Conference will be conducted at 10:00 A.M. on Tuesday, June 30, 2015 at Coastal Middle School, located at 4595 US Highway 80 East, Savannah, Georgia, 31410. Bidders will meet at the front entrance of the facility. An accompanied site visitation will follow. Bids will not be accepted from any firm that is not represented at the Mandatory Pre-Bid Conference.

A "Cone of Silence" is imposed upon this invitation to bid after advertising, and terminates at the time the Board awards a contract. The Cone of Silence prohibits any communication regarding this BID between, among others which includes: Potential vendors, service providers, proposers, lobbyists or consultants, any member of the District's professional staff, or their respective staff and members, respective Design Professional, respective selection committee members, or any elected official. The Cone of Silence does not apply to oral communications at pre-proposal conferences, site visits (as applicable), oral presentations before selection committees, contract negotiations or communications in writing at any time unless specifically prohibited by this BID document. In addition to any other penalties provided by law, violation of the Cone of Silence by any Bidder shall render any BID voidable by the District. Any person having personal knowledge of a violation of these provisions shall immediately report such violations to the District.

Contract, if awarded, will be on a total lump sum bid basis. Bidders are required to provide their unit price bid schedule for the total lump sum bid on the form contained herein. No bid may be withdrawn for a period of sixty days after time has been called on the date of opening except in accordance with the provisions of Georgia law. Bids must be accompanied by a Bid Bond made payable to the District in an amount equal to not less than five percent (5%) of the Bid. Successful Contractor will be required to provide both a Performance Bond and a Payment Bond, each in an amount equal to 100 percent of the total Contract amount within 14 days receipt of the District's Intent to Award and prior to execution of contract.

The District reserves the right in its sole and complete discretion to waive technicalities and informalities. The District further reserves the rights in its sole and complete discretion to reject all bids and any bid that is not responsive or that is over the budget. The District anticipates that the contract will be awarded to the responsive and responsible bidder who provides the lowest bid within the budget. In judging whether the bidder is responsible, the District will consider, but is not limited to, the following:

- Whether the bidder or its principals are currently ineligible, debarred, suspended, or otherwise excluded from bidding or contracting by any state or federal agency, department, or authority;
- Whether the bidder or its principals have been terminated for cause or are currently in default on a public works contract;
- Whether the bidder can demonstrate sufficient cash flow to undertake the project as evidenced by a Current Ratio of 1.0 or higher;
- Whether the bidder can demonstrate a commitment to safety with regard to Workers' Compensation by having an Experience Modification Rate (EMR) over the past three years not having exceeded an average of 1.2; and
- Whether the bidder's past work provides evidence of an ability to successfully complete public works projects within the established time, quality, or cost, or to comply with the bidder's contract obligations.

In the event all responsive and responsible bids are in excess of the budget, the District, in its sole and absolute discretion and in addition to rejecting all bids, reserves the right either to supplement the budget or to negotiate with the lowest responsive and responsible bidder (after all deductive alternates are taken in the order defined in the Instructions to Bidders) but only for the purpose of making changes to the project that will result in a cost to the District that is within the budget, as it may be supplemented.

INSTRUCTIONS TO BIDDERS

1. **Basis of Contract:** Contract, if awarded, will be on a total bid on unit price schedule and will be substantially in accordance with the Contract shown on pages Contract – 1 through Contract – 3.
2. **Examination of Site:** In undertaking the work under this Contract, the Contractor acknowledges that he has visited the Project Site and has taken into consideration all observed conditions that might affect his work. The project site is property of the District. No easements or rights-of-way are required on the site. The Design Professional shall file for all applicable Permits prior to award of the Contract. The Contractor shall be responsible to obtain all applicable Permits from the Jurisdiction prior to commencing work governed by Permit.
3. **Surety and Insurance Companies:** The Contract provides that the surety and insurance companies must be acceptable to the District. At the time of issuance, all insurance and bonds must be issued by a company licensed by the Georgia Insurance Commissioner to transact the business of insurance in the State of Georgia for the applicable line of insurance. Such company shall be an insurer (or, for qualified self-insurers or group self-insured, a specific excess insurer providing statutory limits) with an A.M. Best Financial Strength Rating of "A-" or better and with an A.M. Best Financial Size Category of Class V or larger.
4. **Bidding Documents:** The Bidding Documents comprise the Construction Documents, the Invitation to Bid, the Instructions to Bidders, the Bid Form, and all Addenda, upon which the bidder submits a bid.
5. **Addenda:** All Addenda issued prior to bid date adjust, modify, or change the drawings and specifications as set forth in the Addenda. All such Addenda are part of the contract. No addenda will be issued within seventy-two (72) hours of the date and time set for opening bids without an extension of the bid date as required by Law. All such Addenda are part of the contract.
6. **Submittal of Objections:** Objections from bidders to this Invitation to Bid and/or these specifications should be brought to the attention of the Board through the Director of Purchasing. The bidder should submit any objections in writing not less than five (5) days prior to the opening of the bid. The objections contemplated may pertain to form and/or substance of the Bid documents and specifications. Failure to object in accordance with this procedure will constitute a waiver on the part of the bidder to protest this Invitation to Bid.
7. **Protest:** Any bidder(s) who wishes to protest the handling or fairness of a solicitation shall express his/her concerns in writing to the Director of Purchasing within five business days of the matter being protested. The letter of protest shall be taken under consideration by the Chief Financial Officer and the Superintendent and the protesting bidder(s) shall be notified within ten (10) business days of the result of such consideration.

The protest notice shall include the following:

- o the name, address, and telephone number of the protester
- o the signature of the protester or an authorized representative of the protester
- o identification of the purchasing agency and the solicitation or contract number
- o a detailed statement of the legal and factual grounds of the protest including copies of relevant documents
- o the form of relief requested

8. **Interpretations:** No oral interpretation will be made to bidders as to the meaning of the drawings and specifications. Requests for interpretation of drawings and specifications must be made in writing to the District Purchasing Department not later than **5:00 P.M., July 2, 2015**. Failure on the part of the successful bidder to request clarification shall not relieve him as Contractor of the obligation to execute such work in accordance with a later interpretation by the Design Professional. All interpretations made to bidders will be issued in an Addendum to the plans and specifications will be sent to all plan holders of record. Acknowledgement of receipt of such Addendum shall be listed in the Bid Form by the Contractor.

If any questions should arise pertaining to the bid documents, the Bidder may mail or fax (no e-mails accepted) a written Request for Interpretation to:

Savannah-Chatham County Public School System
Attention: Sabrina L. Scales, CPPB, Purchasing Director
208 Bull Street, Room 213
Savannah, GA 31401
(Fax) 912-201-7648

9. **Alternates:** Unless otherwise stipulated, all alternate bids are deductive. It is in the best interest of the public and the intent of the District that the entire Project be constructed within the funds allocated in the Project budget. The acceptance of any deductive alternate will be utilized as a last resort to accomplish the Project without requiring a redesign and rebidding of the Project. Any alternate, or alternates, if taken, will be taken in numerical sequence to the extent necessary to bring the Project within budget.

10. **Sales Tax:** Unless otherwise provided for in the Contract Documents, the Contractor shall include in his bid all sales taxes, consumer taxes, use taxes, and all other applicable taxes that are legally in effect at the time bids are received. Contractor shall not include sales tax on District supplied items. If sales tax is required to be paid by Contractor on District furnished items, a Change Order to Contractor shall be issued by District.

11. Trade Names, Specifications:

(a) *No Restriction of Competition:* When reference is made in the Contract Documents to trade names, brand names, or to the names of manufacturers, such references are made solely to indicate that products of that description may be furnished and are not intended to restrict competitive bidding. If it desired to use products of trade or brand names or of manufacturers' names that are different from those mentioned in the Bidding Documents, application for the approval of the use of such products must reach the hands of the Design Professional at least ten (10) days prior to the date set for the opening of the bids (see Section 11(b) below). This provision applies only to the party making a submittal prior to bid. If approved by Design Professional, the Design Professional will issue an addendum to all bidders. This provision does not prevent the District from initiating the addition of trade names, brand names, or names of manufacturers by addendum prior to bid.

(b) *Request for Approval of Substitute Product:* All requests for approval of substitution of a product that is not listed in the Bidding Documents must be made to the Design Professional in writing. For the Design Professional to prepare an addendum properly, an application for approval of a substitute product must be accompanied by a copy of the published recommendations of the manufacturer for the installation of the product together with a complete schedule of changes in the drawings and specifications, if any, that must be made in other work in order to permit the use and installation of the proposed product in accordance with the recommendations of the manufacturer of the product. The application to the Design Professional for approval of a proposed substitute product must be accompanied by a schedule setting forth in which respects the materials or equipment submitted for consideration differ from the materials or equipment designated in the Bidding Documents and submitted to the Purchasing Department.

All requests for material substitution must be submitted to the Attention of the Purchasing Director prior to the 5:00 pm July 2, 2015 deadline. Requests must include full illustrations and detailed specifications for the item being offered as an alternate or approved equal. Bidders are not permitted to contact the Design Professional directly. The only official view of the District is that which is issued by and provided to all Bidders of record by the Purchasing Department in the form of a written addendum.

(c) *Burden of Proof:* The burden of proving acceptability of a proposed product rests on the party making the submission. Therefore, the application for approval must be accompanied by technical data that the party requesting approval desires to submit in support of its application. The Design Professional will consider reports from reputable independent testing laboratories verified experience records showing the reputation of the proposed product with previous users, evidence of reputation of the manufacturer for prompt delivery, evidence of reputation of the manufacturer for efficiency in servicing its products or any other written information that is helpful in the circumstances. The degree of proof required for approval of a proposed product as acceptable for use in place of a named product or named products is that amount of proof necessary to convince a reasonable person beyond all doubt. To be approved, a proposed product must also meet or exceed all express requirements of the Contract Documents.

(d) *Issuance of Addenda:* If the Design Professional approves the submittal, an addendum will be issued to all prospective bidders indicating the approval of the additional product(s). Issuance of an addendum is a representation to all bidders that the Design Professional in the exercise of his professional discretion established that the product submitted for approval is acceptable and meets or exceeds all express requirements. If a submittal is initially rejected by the Design Professional, but determined to be acceptable to Design Professional after a conference with the District, an addendum covering the said submittal will be issued prior to the opening of bids. The successful bidder may furnish products of any trade names, brand names, or manufacturers' names except those designated in the Contract Documents unless approvals have been published by addendum in accordance with the above procedure. Oral approvals of products are not valid.

(e) *Conference with the District:* Any party who alleges that rejection of a submittal is the result of bias, prejudice, caprice, or error on the part of the Design Professional may request a conference with a representative of the District, provided: that the request for said conference, submitted in writing, shall have reached the District at least six (6) days prior to the date set for the opening of bids, time being of the essence.

12. Bids:

(a) *Bid Opening:* Bids will be opened and announced as stated in the Invitation to Bid.

(b) *Bid Submission:* All bids must be submitted on the Bid Form as attached hereto and must be signed, notarized, and sealed by a notary public. All blanks for information entry in bid forms submitted to District should be filled in. Blanks left unfilled constitute irregularities in the bid and place the bidder at risk of having the bid rejected *unless* the District rules the irregularity to be an informality or technicality that can be waived, as is made clear in Article 15 of the "Instructions to Bidders" and on the Bid Form. Numbers shall be written in English words and in Arabic numerals. The inclusion of any condition, alternate, qualification, limitation, or provision not called for shall render the bid nonresponsive and shall be sufficient cause for rejection of a bid.

(c) *Bid Security*: Bids must be accompanied by a Bid Bond made payable to the District in an amount not less than five percent (5%) of the Bid. Bid Bonds should be furnished on forms accepted as standard by the insurance industry, but shall be substantially in accordance with the Bid Security Form attached hereto.

(d) *Delivery of Bids*: Bids are to be addressed to the District, at the address and room number shown in the Invitation to Bid. Bids must be enclosed in an opaque, sealed envelope; marked with the Bid Date, Bid Time, Bid Number, Name of Project; and the Bidders Company name and address. Bids must be placed in the hands of the District at the specified location by not later than the time and date named in the Invitation to Bid. After that time, no bids may be received.

(e) *Alternates*: If alternatives are called for, a bid must be submitted for all alternates. Failure to do so may render the bid nonresponsive and be sufficient cause for rejection of a bid.

(f) *Withdrawal of Bids*: Bids may be withdrawn by bidders prior to the time set for official opening. After time has been called, no bid may be withdrawn for a period of sixty days after the time and date of opening except as provided in O.C.G.A Title 36 Chapter 91 (appreciable error in calculation of bid). Negligence or error on the part of any bidder in preparing his bid confers no right of withdrawal or modification of his bid after time has been called except as provided by Georgia law.

(g) *Errors or Revisions*: Prior to the bid opening date and hour, errors may be stricken or revisions may be made and corrections entered on the bid proposal form with sufficient clarity to be easily understood. All such annotations shall be made by authorized representative of the bidder and identified as such. These annotations shall be binding on the bidder. **No revisions will be allowed or accepted on the outside of the envelopes.**

13. **Contract Award**: Award shall be made on a total bid on unit price schedule basis to the lowest responsive and responsible bidder. The lowest bid will be the bid whose price, after incorporating all accepted alternates, is the lowest responsive bid that was received from a responsible bidder. No bid may be withdrawn for a period of sixty days after time has been called on the date of opening except in accordance with the provisions of law.

14. **District's Rights Concerning Award**: The District reserves the right in its sole and complete discretion to waive technicalities and informalities. The District further reserves the right in its sole and complete discretion to reject all bids and any bid that is not responsive or that is over the budget, as amended. In judging whether the bidder is responsible, the District will consider, but is not limited to consideration of, the following:

- (a) Whether the bidder or its principals are currently ineligible, debarred, suspended, or otherwise excluded from bidding or contracting by any state or federal agency, department, or authority;
- (b) Whether the bidder or its principals have been terminated for cause or are currently in default on a public works contract;
- (c) Whether the bidder can demonstrate sufficient cash flow to undertake the project as evidenced by a Current Ratio of 1.0 or higher;
- (d) Whether the bidder can demonstrate a commitment to safety with regard to Workers' Compensation by having an Experience Modification Rate (EMR) over the past three years not having exceeded an average of 1.2; and
- (e) Whether the bidder's past work provides evidence of an ability to successfully complete public works projects within the established time, quality, or cost, or to comply with the bidder's contract obligations.

15. **District's Right to Negotiate with the Lowest Bidder (O.C.G.A. § 36-91-21)**: In the event *all* responsive and responsible bids are in excess of the budget, the District, in its sole and absolute discretion and in addition to the rights set forth above, reserves the right either to (i) supplement the budget with additional funds to permit award to the lowest responsive and responsible bid, or (ii) to negotiate with the lowest responsive and responsible bidder (after taking all deductive alternates) only for the purpose of making changes to the Project that will result in a cost to the District that is within the budget, as it may be amended. Negotiation may include changes in the scope of work and other bid requirements.

16. **Development of Local and Minority/Woman Business Enterprises**: It is the policy of the Board of Education to maximize the utilization of qualified local, minority, and women owned business enterprises ("LMWBEs") who provide professional services or who serve as prime contractors, subcontractors or suppliers as a part of the District's facilities construction, maintenance and repair programs. The Board expects that prime contractors on district construction projects will make and document good-faith efforts to maximize the utilization of qualified LMWBE's as subcontractors and suppliers for District Projects. The Board encourages all members of the local construction community, regardless of ownership or size, to work together on District projects so that all can grow their businesses for the benefit of the Savannah-Chatham community. This solicitation is subject to Board policy FG and regulations thereunder.

Bidder shall take all reasonable steps in accordance with this solicitation to insure that local and disadvantaged enterprises have that maximum opportunity to participate in the resulting contract. No Bidder shall discriminate on the basis of race, color, national origin or sex in the award or performance of any subcontracts or purchase orders resulting from or relating to this solicitation. Moreover, the Bidder shall make good faith efforts to select contractors, service providers, vendors, and suppliers from local and disadvantaged enterprises.

The Bidder must demonstrate a good faith effort to provide opportunity for local and LMWBEs, in part by providing as a part of its Statement of Qualifications the forms provided in this BID, which shall be completed in a manner sufficient to provide documentation of such good faith efforts. Those forms pertaining to development of local and disadvantaged enterprises include:

LOCAL AND/OR MINORITY / WOMAN BUSINESS ENTERPRISE DEVELOPMENT INFORMATION (Form 2)
LOCAL AND MWBE GOOD FAITH EFFORTS REQUIREMENTS (Form 3)
LOCAL AND MWBE DEVELOPMENT DOCUMENTATION (Form 4)

Good faith efforts should include, but not be limited to, the following:

- Attend pre-solicitation meetings to inform LMWBEs of subcontracting opportunities.
- Advertise in general circulation media, trade association publications, and minority and women business enterprise media to provide notice of subcontracting opportunities.
- Communicate with the City of Savannah's Office of Economic Development to identify available and qualified LMWBE firms.
- Select portions of work for subcontracting in areas with established availability of LMWBE subcontractors.
- Solicit and negotiate with available and qualified LMWBEs for specific subcontracting opportunities.

A local business enterprise is defined as (1) having established a regular, physical place of business other than a job site office with at least one employee within the geographical boundaries of the Savannah Georgia Metropolitan Statistical Area (MSA) prior to the closing date on the solicitation (a post office box address will not satisfy this requirement); (2) having a current Business Tax Certificate and other licenses, certificates, or permits required by law to operate a business in that location; and (3) performing a commercially useful function within the local office.

A Minority Business Enterprise is an independent, continuing venture that is at least 51% owned by a minority person or persons that meets the criteria for a Disadvantaged Business. A Disadvantaged Business is a small business which is owned, controlled and managed on a daily basis by a majority of persons, not limited to members of minority groups, who have been deprived of the opportunity to develop and maintain a competitive position in the economy because of social disadvantage. This includes:

1. African American: A person having origins in any of the Black racial groups of Africa;
2. Hispanic American: A person of Spanish culture with origins in Mexico, South America, Central America or the Caribbean, regardless of race.

A Women Business Enterprise is an independent, continuing venture that is at least 51% owned by one or more women. To qualify as an LMWBE, the owner must be a citizen or lawful permanent resident of the United States, be involved in daily business operations, and provide a commercially useful function. The ownership interest must be real and continuous and not created solely to meet the local/minority/women business or local/minority/women contractor good faith efforts.

The School District's Program Management Firm is available to identify and facilitate qualified Local and/or Minority and/or Women Owned Businesses through its community outreach division. The contact person for this assistance is Sylvester Formey, Phone 912-236-1766 and email sylvesterf@vangdist.com.

For more information regarding how to best provide opportunities for business growth and development for local and disadvantaged business enterprises, please contact:

Savannah Entrepreneurial Center
801 E. Gwinnett Street
Savannah, GA 31401
(912) 652-3582 (Phone)

The Savannah Entrepreneurial Center of the City of Savannah is merely a reference resource, and has and shall have no authority in the evaluation of Bidders or Statements of Qualifications, or in the disposition of grievances or protests pertaining to this BID.

All Bidders must read and complete all required and/or applicable documents included in the Forms Section of the Instructions to Bidders.

17. Bid Requirement Forms:

- FORM 1: **Certification Form**: Certifies that the Bidder has carefully reviewed all provisions of the solicitation and hereby agree to be bound by said provisions of this package.
- FORM 2: **Local and/or Minority/Women Business Enterprise Development Information**: Required to assist District with documenting status of participating Bidders.
- FORM 3: **Local and MWBE Good Faith Efforts Requirements**: Required for certifying and documenting evidence of good faith efforts to utilize local and Disadvantage Business Enterprises on this contract.
- FORM 4: **Local MWBE Development Documentation**: Required to assist District in evaluating good faith efforts of Bidders.
- FORM 5: **Disclosure of Responsibility Statement**: Certifies and documents Bidders ability or responsiveness to provide services in accordance with governmental business practices.
- FORM 6: **Contracting Affidavit and Agreement**: Required by the State of Georgia O.C.G.A. § 13-10-91 (b) (1) for all firms providing service(s) to public sector entities. This form requires compliance regarding hiring and verification of employees.
- FORM 7: **Form of Business Disclosure Statement**: Confirms identify and legal status of Bidder.
- FORM 8: **Statement of Active Participation in SCCPSS Schools**: Documents active participation in SCCPSS schools as encouraged by Board Policy FGC.
- FORM 9: **Subcontractor Affidavit**: Required by the State of Georgia O.C.G.A. § 13-10-91 (b) (3) for all firms providing service(s) to public entities. This form requires compliance regarding hiring and verification of employees.
- FORM 10: **Sub-subcontractor Affidavit**: Required by the State of Georgia O.C.G.A. § 13-10-91 (b) (4) for all firms providing service(s) to public entities. This form requires compliance regarding hiring and verification of employees.

Forms 1 through 10, must be completed, fully executed and submitted with the BID. Failure to submit and execute the required Forms shall result in a status of non-responsive.

18. Contract Forms: The contract forms, including the Payment and Performance Bonds, shall be as set forth in the General Conditions, Section 17 – Forms.

Attachments:

- (1) Project Specifications
- (2) Project Plans (drawings)
- (3) Form of Agreement

CERTIFICATION FORM
BID C16-04 (ESPLOST)

The undersigned Bidder certifies that he/she has carefully read the preceding list of instructions to Bidders and all other data applicable hereto and made a part of this Invitation to Bid. Bidder further certifies that the Bid submitted is in accordance with all documents contained in this Bid, and that any exception taken thereto may disqualify his/her Bid, and that any misrepresentation of facts hereby subject Bidder to debarment from future District procurement. Bidder understands and agrees all Bids are FINAL.

The Bidder in response to this Bid is hereby stipulated to be none other than*:

Company _____
Federal Taxpayer ID No.

Street Address _____
City _____
State _____
Zip _____
Phone No. _____
Fax No.

Responsible Principal _____
Phone Number of Responsible Principal

**If the Bidder is a joint venture that is a business entity created for the purpose of functioning as the joint venture, enter above the correct legal information for the joint venture business entity which intends to enter into a contract with the District for the Services solicited by this Bid. If the joint venture is operated through the existing legal status of the venture partners, enter above the correct legal information for only the one venture partner with majority participation in the joint venture, or if all venture partners are equal in the joint venture, enter information for only the venture partner which intends to enter into a contract with the District for the Services solicited by this Bid.*

IF different than the Responsible Principal listed above, the Contact Person for this BID is hereby authorized to be*:

Contact Person for this Bid _____
Phone Number of Contact Person

Receipt of the following Addenda is hereby acknowledged: # _____ # _____ # _____ # _____
(All Addenda issued MUST be acknowledged in order for Bid to be considered responsive.)

This is to certify that I, the undersigned Bidder, have read the instructions to Bidder and agree to be bound by the provisions of the same, this _____ day of _____, 201 _____, by:

Responsible Principal _____
Title _____
Authorized Signature

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE _____ DAY OF _____, 201 _____

Notary Public; My Commission Expires: _____

DO NOT include any attachments to this form.
SCCPSS BID FORM 1



LOCAL AND/OR MINORITY/WOMAN BUSINESS ENTERPRISE DEVELOPMENT INFORMATION

It is the desire of the District to maximize participation of local and disadvantaged business enterprises at all levels in the procurement process. In order to accurately document participation, businesses submitting bids, proposals or Statements of Qualifications are required to report ownership status. See Section 16. "Development of Local and Minority / Woman Business Enterprises" for information to assist in completing this Form.

BIDDER: _____ BID # **C16-04 (ESPLOST)**

Please check ownership status as applicable:

- | | |
|---|------------------------------------|
| <input type="checkbox"/> Local | <input type="checkbox"/> Woman |
| <input type="checkbox"/> African American | <input type="checkbox"/> Hispanic |
| <input type="checkbox"/> Majority | <input type="checkbox"/> Non-Local |

_____ Name, Title	_____ Authorized Signature	_____ Date
----------------------	-------------------------------	---------------

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE _____ DAY OF _____, 201_____

Notary Public; My Commission Expires: _____

HOW DID YOU HEAR ABOUT THIS BID?

(This information is for statistical use only.)

- | | |
|---|---|
| <input type="checkbox"/> City of Savannah, Department of Economic Development | <input type="checkbox"/> The Herald Legal Ad |
| <input type="checkbox"/> Received Invitation to Bid by Mail | <input type="checkbox"/> Savannah News Press Legal Ad |
| <input type="checkbox"/> The Savannah Tribune Legal Ad | <input type="checkbox"/> Visiting the Purchasing Office |
| <input type="checkbox"/> Other _____ | |

DO NOT include any attachments to this form.

SCCPSS BID FORM 2

LOCAL AND MWBE DEVELOPMENT DOCUMENTATION

Project Name: General Contracting Services for Coastal Middle School Reroofing Replacement Modification
BID #: C16-04 (ESPLOST)

Enter below documentation of efforts made by the Bidder to enlist the participation of Local and/or MWBE.

Firm Name	Person & Date Contacted	Telephone # & Email Address	Type of Services	Method of Communication

Note: Provide additional copies of this form if necessary, numbering each.

*Include attachments to this form only as deemed necessary.
Any attachments to this form must be marked clearly on each page with the words, "Attachment to Form 4."*

SCCPSS BID FORM 4

DISCLOSURE OF RESPONSIBILITY STATEMENT

List any convictions of any person, subsidiary, or affiliate of the company, arising out of obtaining, or attempting to obtain a public or private contract or subcontract, or in the performance of such contract or subcontract.

Not Applicable { } or List:

List any convictions of any person, subsidiary, or affiliate of this company for offenses such as embezzlement, theft, fraudulent schemes, etc. or any other offenses indicating a lack of business integrity or business honesty which affect the responsibility of the contractor.

Not Applicable { } or List:

List any convictions or civil judgments under state or federal antitrust statutes.

Not Applicable { } or List:

List any violations of contract provisions such as knowingly (without good cause) to perform, or unsatisfactory performance, in accordance with the specifications of a contract.

Not Applicable { } or List:

List any prior suspensions or debarments by any government agency.

Not Applicable { } or List:

List any contracts not completed on time.

Not Applicable { } or List:

List any penalties imposed for time delays and/or quality of material and workmanship.

Not Applicable { } or List:

List any documented violations of federal or state labor laws, regulations, or standards, occupational safety and health rules.

Not Applicable { } or List:

List any pending civil actions against company for nonperformance of contract.

Not Applicable { } or List:

I, _____, of _____

Name of Individual, Title & Authority

Company Name

Declare under oath that the above statements, including any supplemental responses attached hereto, are true.

_____ State of _____

Authorized Signature

County of _____

Subscribed and sworn to before me on this _____ day of _____ 201_____ by representing

him/herself to be of the company named herein.

_____ Notary Public; My Commission Expires: _____

DO NOT include any attachments to this form.

SCCPSS BID FORM 5

CONTRACTING AFFIDAVIT AND AGREEMENT

CONTRACTOR AFFIDAVIT UNDER O.C.G.A § 13-10-91(B)(1)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of the Savannah-Chatham County Public School System ("SCCPSS") has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, 201__ in _____ (city), _____ and (state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 201__

Notary Public

My Commission Expires:

DO NOT include any attachments to this form.

SCCPSS BID FORM 6

STATEMENT OF ACTIVE PARTICIPATION IN SCCPSS SCHOOLS

The Board of Education encourages design and engineering professionals who do business with SCCPSS to actively participate in our schools and provide career direction to students interested in learning more about these fields, to include supporting student career days, construction mentorship programs, and other related activities.
(excerpt from Board Policy FGC)

List below current and planned activities which support SCCPSS schools.

School	Business and/or Individual Name	Date(s)	Activity

SCCPSS BID FORM 8

Subcontractor Affidavit under O.C.G.A. § 13-10-91(b)(3)

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with _____ on behalf of the Savannah-Chatham County Public School System ("SCCPSS") has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the subcontractor with the information required by O.C.G.A. § 13-10-91(b). Additionally, the undersigned subcontractor will forward notice of the receipt of an affidavit from a sub-subcontractor to the contractor within five business days of receipt. If the undersigned subcontractor receives notice that a sub-subcontractor has received an affidavit from any other contracted sub-subcontractor, the undersigned subcontractor must forward, within five business days of receipt, a copy of the notice to the contractor. Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Subcontractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, ____, 201__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 201__.

NOTARY PUBLIC

My Commission Expires:

**THE PRIME CONTRACTOR OR ARCHITECT MUST GET THIS FORM COMPLETED BY THE
SUBCONSULTANT/SUPPLIERS**

SCCPSS BID FORM 9

Sub-subcontractor Affidavit under O.C.G.A. § 13-10-91(b)(4)

By executing this affidavit, the undersigned sub-subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with _____ and _____ on behalf of (Savannah-Chatham County Public School System ("SCCPSS")) has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned sub-subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned sub-subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the sub-subcontractor with the information required by O.C.G.A. § 13-10-91(b). The undersigned sub-subcontractor shall submit, at the time of such contract, this affidavit to (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Additionally, the undersigned sub-subcontractor will forward notice of the receipt of any affidavit from a sub-subcontractor to (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Sub-subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Sub-subcontractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, ____, 201__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 201__.

NOTARY PUBLIC
My Commission Expires: _____

THE PRIME CONTRACTOR OR ARCHITECT MUST GET THIS FORM COMPLETED BY THE SUB-SUBCONSULTANT/SUPPLIERS

SCCPSS FORM BID 10

BID REQUIREMENTS

BID FORM

To: Savannah-Chatham County Public School System From: CONTRACTOR _____

Re: Bid #C16-04 (ESPLOST) General Contracting Services for Coastal Middle School Reroofing Replacement Modification

Bid: Having carefully examined the Bidding Documents describing **Bid #C16-04 (ESPLOST) General Contracting Services for Coastal Middle School Reroofing Replacement** including all addendums, as well as the site and conditions affecting the Work, bidder hereby proposes to furnish all services, labor, materials, and equipment called for by them for the entire Work, in accordance with the aforesaid documents, for the entire sum of Work which sum is hereinafter called the Bid:

Total Bid: _____ Dollars (\$ _____)

*****(which sum is hereinafter called the Base Bid Amount)**

Receipt of the following Addenda is hereby acknowledged: # _____ # _____ # _____ # _____ # _____ # _____ # _____

Unit Costs: All Unit Prices (Section 012200) as totaled at Column C on attached Schedule of Unit Prices

_____ Dollars (\$ _____)

The Sum of A and B and C above:

_____ Dollars (\$ _____)

***** (which is hereinafter called the Bid Amount)**

****Unit prices include all necessary material, plus cost for delivery, installation, insurance applicable taxes, overhead and profit.**

Alternates: We further propose that, should any of the following alternates be accepted and be incorporated in the Contract, the Bid will be altered in each case as follows:

The following are additive bid alternates. The District reserves the right to select alternates at their discretion (no particular order).

A. Alternate No. 1:

1. Base Bid: At brick walls of gymnasium, at locations above metal roofing to be installed as a part of this contract, provide penetrating Water Repellant as detailed in the drawings and specifications.
2. At brick walls of gymnasium, at locations above metal roofing to be installed, as a part of this contract, omit Penetrating Water Repellant and provide metal walls panels on metal furring as detailed in the drawings and specifications, with related work including but not limited to removal and re-installation of gutters and downspouts at the gymnasium roof as required to install metal panels.

No. 1 (Add) to Base Bid: \$ _____ /Total

No. 2 (Add) to Base Bid: \$ _____ /Total

Add the sum of:

_____ Dollars (\$ _____)

B. Alternate No. 2:

1. Alternate: Provide all indicated work indicated as Alternate No. 2 at Gymnasium Roof.

Alternate No. 2: (Add) to Base Bid: \$ _____ /Total

Add the sum of:

Liquidated Damages: Time being of the essence for this Project, and a material consideration thereof, the bidder agrees that all Work sought to be performed through this solicitation shall be completed by the contract date for material completion. In the event of delay or nonperformance caused by the Bidder, then Bidder agrees to pay the District liquidated damages in the amount of **\$500** per calendar day for each calendar day after the date established for material completion, but, in no event, shall the amount of liquidated damages exceed the total contract price. Bidder agrees that this **\$500** per day late completion fee constitutes liquidated damages, not a penalty, because the damages for the deprivation of use due to late delivery are difficult to determine. Extension of time is the bidder's sole remedy for any delays not the fault of the bidder. The bidder shall not be entitled to any damages for delay or to any other reimbursement as a Cost of the Work, or to an increase in the Contract Sum, or to payment, damages, monies, or compensation of any kind from the District for direct, indirect, impact, or disruption damages (including but not limited to costs of acceleration of Work or any Phase thereof) arising because of delay or other hindrance of any kind whatsoever; except as specifically permitted by the parties' final Contract documents or subsequent change order approved by the District.

Errors or Revisions: Prior to the bid opening date and hour, errors may be stricken or revisions may be made and corrections entered on this bid form with sufficient clarity to be easily understood. All such annotations shall be made by the authorized representative of the bidder and identified as such. These annotations shall be binding on the bidder. **No revisions will be allowed or accepted on the outside of the envelopes.**

No Withdrawal: The bidder and District agree that this bid may not be revoked or withdrawn after the time set for the opening of bids, except as provided in Georgia law, but is an irrevocable offer that shall remain open for acceptance for a period of sixty days following the time set for the opening of bids.

Execution of the Contract: If bidder is notified in writing by statutory mail of the acceptance of this bid within thirty five days after time set for the opening of bids, bidder agrees to execute within twenty- one (21) days the Contract for the Work for the above stated Bid, as adjusted by the accepted Alternates, and at the same time to furnish and deliver to the District a Performance Bond and a Payment Bond on forms shown in Section 7 of the General Conditions of the Contract, both in an amount of equal to 100 percent of the Contract Sum.

Commencement and Completion of Work: Upon the Effective Date of the Contract, bidder agrees to commence all Preconstruction Activities. Within ten days of the date specified in the Proceed Order, bidder agrees to commence physical activities on the Site with adequate forces and equipment and to **Material Completion of Phase I no later than October 1, 2015 and Material Completion of other work outside of Phase I no later than November 20, 2015** from the date specified in the Proceed Order and to be 100% complete including all deficiencies within no more than 30 days of Material Completion.

Bid Bond: Enclosed herewith is a Bid Bond (*cashier's check or other form of security are acceptable*) in the amount of _____ Dollars (\$ _____) (being not less than five percent of the Bid). Bidder agrees that the above stated amount is the proper measure of liquidated damages that the District will sustain by bidder's failure to execute the Contract or to furnish the Performance and Payment Bonds should bidder's bid be accepted.

Obligation of Bid Bond: If this bid is accepted within thirty five days after the date set for the opening of bids and bidder fails to execute the Contract within twenty-one (21) days after Notice of Successful Bid, or if bidder fails to furnish both Performance and Payment Bonds, the obligation of the Bid Bond will remain in full force and effect and the money payable thereon shall be paid into the funds of the District as liquidated damages for such failure; otherwise, the obligations of the Bid Bond will be null and void.

Bidder Certification

Certification under Oath:

O.C.G.A. § 36-91-21 provides in part:

(d) Whenever a public works construction contract for any governmental entity subject to the requirements of this chapter is to be let out by competitive sealed bid or proposal, no person, by himself or herself or otherwise, shall prevent or attempt to prevent competition in such bidding or proposals by any means whatever. No person who desires to procure such work for himself or herself or for another shall prevent or endeavor to prevent anyone from making a bid or proposal therefore by any means whatever, nor shall such person so desiring the work cause or induce another to withdraw a bid or proposal for the work.

(e) Before commencing the work, any person who procures such public work by bidding or proposal shall make an oath in writing that he or she has not directly or indirectly violated subsection (d) of this Code section. The oath shall be filed by the officer whose duty it is to make the payment. If the contractor is a partnership, all of the partners and any officer, agent, or other person who may have represented or acted for them in bidding for or procuring the contract shall also make the oath. If the contractor is a corporation, all officers, agents, or other persons who may have acted for or represented the corporation in bidding for or procuring the contract shall make the oath. If such oath is false, the contract shall be void, and all sums paid by the governmental entity on the contract may be recovered by appropriate action.

STATE OF GEORGIA
COUNTY OF _____

I do solemnly swear on my oath that, as to the Contract dated _____, 201_____, between

_____ and The Board of Public Education for the City of Savannah and the County of Chatham, Georgia, I have not directly or indirectly influenced or the attempted exertion of any influence on behalf of the firm on behalf of which this affidavit is made, in any way, manner, or form in the purchase of materials, equipment, or other items involved in construction, manufacture, or employment of labor under the aforesaid Contract by or on any employee, officer, or agent of the Board, or any person connected with SCCPSS in any way whatsoever and I have not directly or indirectly violated subsection (d) of OCGA 36-91-21.

BY: _____
Authorized Signature (BLUE INK PLEASE)

Printed Name Title

Sworn to and subscribed before me this ____ Day of _____, 201_____.

Notary Public

My commission expires: _____

(SEAL)

NOTE: THE NOTARY SEAL MUST BE APPLIED UNDER GEORGIA LAW, WHETHER OR NOT THE LAW OF THE STATE WHERE EXECUTED PERMITS OTHERWISE.

**STATEMENT OF BIDDER'S QUALIFICATIONS:
(To be subscribed and sworn to before a Notary Public)**

The bidder submits the following Statement of Bidder's Qualifications for consideration by the District.

Bidder's Name: _____
LEGAL NAME OF BUSINESS

Bidder's Address: _____
LEGAL BUSINESS ADDRESS (P.O. BOX IS INSUFFICIENT)

CITY STATE ZIP

MAILING ADDRESS IF DIFFERENT FROM ABOVE

Telephone Number: _____ **Fax Number:** _____
Area Code Number Area Code Number

The full names of persons and firms interested in the foregoing bid as principals are as follows:

(1) _____
Circle One: President Partner District Other

(2) _____
Circle One: Vice President Secretary Partner Other

(3) _____
Circle One: Vice President Secretary Partner Other

Note: If incorporated: The names of both the President and Corporate Secretary must be indicated. If a partnership, all partners must be indicated.

Social Security Number or FEIN: _____

State Where Organized or Incorporated: _____

Georgia General Contracting (O.C.G.A. § 43-41 et. Seq.) Qualifying Agent: _____

Licensure as: _____ **License #:** _____

Plan of Organization: (Circle One) Proprietorship Corporation Partnership Joint Venture Other (Describe)

Years Engaged in Construction Contracting in Present Firm/Organization: _____ years.

Bidder Hereby Certifies that Bidder:

- a. Has never refused to sign a contract at the original bid on a public works contract except as allowed under Georgia law.
- b. Has never been terminated for cause on a public works contract.
- c. Has had no (criminal or felony) convictions, suspensions, or debarments of the bidder, its officers, or its principals for building code violations, bid rigging, or bribery in the last ten years.
- d. Is not and neither its organization nor its principals are debarred, suspended, declared ineligible, or otherwise excluded by any Federal or State department or agency from doing business with the Federal Government or a State.
- e. Has insurance required by the Contract Documents in place or has arranged to obtain it from an insurer authorized to do business in the State of Georgia.
- f. Has sufficient bonding capacity to obtain a payment and performance bond from a surety meeting the requirements of the Contract Documents and authorized to do business in the State of Georgia.
- g. Has sufficient cash flow to perform this Project.

Remarks or explanations of the above paragraph a through g:

BIDDERS REFERENCE FORM

For each project, provide owner current contact information and the following:

- Item 1: Project name, location and dates during which services were performed
- Item 2: Brief description of project (square footage, type of construction, number of stories, describe site area)
- Item 3: State if work was phased or constructed on an occupied campus

Company Name:
Contact Person:
Phone and Fax No.:
Item 1:
Item 2:
Item 3:

Company Name:
Contact Person:
Phone and Fax No.:
Item 1:
Item 2:
Item 3:

Company Name:
Contact Person:
Phone and Fax No.:
Item 1:
Item 2:

BID REQUIREMENTS

BID SECURITY FORM

NOTE TO CONTRACTOR: Use of Surety's standard Bid Bond form is acceptable as long as it substantially complies with the following form.

KNOW ALL BY THESE PRESENTS, That we, {Insert Contractor's Legal Name and Address} as Bidder, hereinafter called the Principal, and {Insert Legal Name and Address of Surety}, a corporation duly organized under the laws of the State of {Insert State of Corporate Organization}, as Surety, are held and firmly bound unto:

DISTRICT: _____

Attention: _____

Phone Number: _____

Facsimile Number: _____

as Obligee, hereinafter called the Obligee in the sum of _____ (Not less than five percent of the Bid) Dollars (\$ _____), for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a Bid for _____
Bid # C16-04 (ESPLOST) General Contracting Services
for Coastal Middle School Reroofing Replacement
Modification

NOW, THEREFORE, if the Obligee shall accept the Bid of the Principal and (1) the Principal shall enter into a Contract with the Obligee in accordance with the terms of such Bid, and the Principal shall execute the Contract and give such bond or bonds as may be specified in the Bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) in the event of the failure of the Principal to enter such Contract and give such bond or bonds, and the Principal shall pay to the Obligee the difference not to exceed the difference hereof between the amount specified in said Bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said Bid; then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this _____ Day of _____, 201__

Name of Contractor _____
Principal

Witness By: (Seal)
Title _____

Name of Surety: _____

Surety Witness
By: _____ (Seal) (*)

(*)Attach Power of Attorney

Sworn to and subscribed before me this _____ day of _____, 201__.
My Commission expires this _____ day of _____, 201__

Notary Public

CONSTRUCTION CONTRACT
(TO BE USED WITH DESIGN PROFESSIONAL CONTRACT)

Between

**THE BOARD OF PUBLIC EDUCATION FOR THE CITY OF SAVANNAH
AND THE COUNTY OF CHATHAM**

And

Contractor: _____

Project: _____

Contract Number: _____

Date: _____

CONSTRUCTION CONTRACT
BETWEEN CONTRACTOR AND OWNER

THIS CONSTRUCTION CONTRACT ("Contract") made this _____, by and between _____, (hereinafter referred to as the "Contractor"), whose address is _____, and The Board of Public Education for the City of Savannah and the County of Chatham (hereinafter referred to as the "Owner" or the "Board").

WITNESSETH, that the Contractor and the Owner, for the consideration set forth herein, the adequacy and sufficiency of which is hereby acknowledged by each party, agree as follows:

Project No. _____

Project Name and Description: _____ (hereinafter the "Project.")

1. Bidding Documents. The Contractor has reviewed and taken into consideration the Bidding Documents in preparing bid.

2. The Contract Sum: The Owner shall pay the Contractor for the performance of the contract, subject to additions and deductions provided by approved change orders, in current funds, the Contract Sum as follows:

Total Bid: _____ (\$ _____)

3. The Material Completion: The Contractor will be complete all work within _____ of the Proceed Order date.

4. The agreed daily amount for Liquidated Damages is: \$ _____ per day.

5. Contractor Information

Form of Business: _____
Qualifying Agent: _____
Licensure As: _____
License Number: _____

6. Notice. All notices in accordance with Section 1.1.5 shall be given to the following addresses:

CONTRACTOR:

Attention: _____
Phone Number: _____
Facsimile Number: _____

OWNER:

Savannah Chatham County Public School System
208 Bull Street, Room 305
Savannah, Georgia 31401

OWNER'S REPRESENTATIVE:

Attention: _____

DESIGN PROFESSIONAL:

Attention: _____
Phone Number: _____
Facsimile Number: _____

7. Scope of the Work: The Contractor shall furnish all the materials, perform all of the Work, and do all things required by the Contract Documents.

8. Schedule and Completion: The Pre-commencement Phase Services to be performed under this Contract shall commence upon the Effective Date of the Contract and be completed within 60 days thereafter. Activities on the Site shall commence within ten days of the date specified in the Proceed Order, and shall be materially complete in accordance with established Milestones, not later than the Material Completion and Occupancy Date.

9. Periodic Progress Payments: The Owner shall make progress payments, less retainage, as set forth in Section 4 of the General Conditions.

10. Payment for Material Completion: The Contractor may request payment of the remaining contract balance, including retainage, less amounts credited the Owner or incurred as liquidated damages, and less amounts withheld for the Punchlist by reason of Minor Items or Permitted Incomplete Work (Scheduled Warranty Items) (See Paragraph 6.5.3.2).

11. Final Payment: Final Payment shall be made within ten days of receipt of the final payment application as set forth in Section 6, Part 2 of the General Conditions, provided that all other requirements of the Contract shall have been met in full.

12. The Contract Documents: This Contract including the General Requirements, Forms and any Supplementary General Requirements, together with the Bidding Documents shall constitute the Contract Documents for the Project.

13. Compliance with Federal and State Immigration Laws. Contractor certifies its compliance with Federal and State immigration laws. Contractor warrants that it has registered with and uses the federal work authorization program commonly known as "E-Verify." Contractor further agrees that it will execute any affidavits required by O.C.G.A. §13-10-91, samples of which are attached to this Agreement. Contractor further warrants that it will not enter into any contract with a subcontractor or subconsultant that does not participate in a federal work authorization program. Contractor will require all subcontractors or subconsultants to provide Contractor with O.C.G.A. § 13-10-91 affidavits similar to the ones provided by Contractor to Owner as required by O.C.G.A. § 13-10-91 (b) (3) & (4).

14. Compliance with Georgia Department of Education Policies and the Provision of Documentation Requested by the Georgia Department of Education. Contractor agrees to comply with any Georgia Department of Education policies that apply to contractors performing construction contracts for Georgia school districts. Contractor further agrees to provide Owner with any documentation requested by the Georgia Department of Education in connection with the Project that is subject of this Agreement, such as Department of Education Form 0263, the Request for Reimbursement Form.

15. Compliance with Board Policies. Contractor agrees to comply with all Policies of the Board of Public Education for the City of Savannah and the County of Chatham including, but not limited to, Policy FG. Pursuant to Board Policy FG, Contractor shall make and document good faith efforts to maximize the utilization of qualified local, minority, and women business enterprises ("LMWBEs") as subcontractors, suppliers, and subconsultants in connection with the performance of this contract. Examples of ways that Contractor can maximize the utilization of LMWBEs are outlined in Board Policy FG. Throughout the performance of this Contract, the Board may, from time to time, require Contractor to report on its effort to maximize LMWBE involvement in the Project.

16. Bonds: The Contractor shall furnish both a performance bond and a payment bond and shall pay the premiums thereon as a Cost of the Work. The Performance Bond shall guarantee the full performance of the Contract.

17. Full Performance: The Owner and the Contractor hereby agree to the full performance of the Contract Documents.

18. Applicable Law: This Contract and all rights, privileges and responsibilities shall be interpreted and construed according to the laws of the State of Georgia. Any claim or controversy arising out of or relating to this Agreement or any breach thereof shall be brought, maintained and pursued only in a state court of competent subject matter jurisdiction located in Georgia's Eastern Judicial Circuit in and for Chatham County, Georgia. The Parties hereby agree in advance to consent to personal jurisdiction in any state court of competent subject matter jurisdiction in Chatham County, Georgia, and agree in advance to waive the defense of personal jurisdiction in any action arising out of or relating to this Agreement or any breach thereof that is brought in Chatham County, Georgia. The Parties further agree that any state court of competent subject matter jurisdiction in Chatham County, Georgia, will be a proper venue for any action arising

out of or relating to this Agreement or any breach thereof and agree in advance to waive the defense of improper venue in any such suit.

19. No Conflict Of Interest: The Contractor covenants that it presently has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance required under this Contract. The Contractor further covenants that, in the performance of this Contract, it shall neither contract with nor employ any person having any such interest.

20. No Assignment: This Contract and the proceeds of this Contract may not be assigned or sublet as a whole, nor may the performance thereunder be assigned, without the prior written consent of the Owner.

21. No Waiver: The failure of the Owner at any time to require performance by the Contractor of any provision hereof, shall in no way affect the right of the Owner thereafter to enforce any provision or any part of the Contract, nor shall the failure of the Owner to enforce any breach of any provision hereof to be taken or held to be a waiver of such provision, or as a waiver, modification or rescission of the Contract itself.

22. Full Agreement: The Contract Documents supersede all prior negotiations, discussion, statements, and agreements between Owner and Contractor and constitute the full, complete, and entire agreement between Owner and Contractor. There can be no changes to this Contract by oral means, nor by course of conduct of the parties, nor by custom of the trade. No changes to this Contract will be binding on either party hereto unless such change is properly authorized, in writing, in accordance with Section 3, Part 2 of the General Conditions.

IN WITNESS WHEREOF the parties hereto have executed this Contract under seal the day and year first written above.

(Contractor)

ATTEST:

(L.S.)

By: _____ (L.S.)

_____, Secretary

_____, President

**BOARD OF PUBLIC EDUCATION FOR THE CITY
OF SAVANNAH AND THE COUNTY OF CHATHAM**

_____, Chief Financial Officer

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SECTION 1 – GENERAL

PART 1 - GENERAL

1.1.1 General Provisions.

1.1.1.1 This Contract and Affiliated Agreements – Requirement for Written Agreements. This Contract and all Affiliated Agreements, including any subsequent modifications, must be in writing, dated, and executed by the parties. Affiliated Agreements, including financial arrangements with respect to this Project, must be promptly and fully disclosed to the Owner upon their execution or modification.

1.1.1.2 Basic Statement of Owner Objectives. The Owner's basic objectives are the construction of the Project within the limits, time, and funds available to Owner for construction of the Project, and in accordance with the approved Construction Documents.

1.1.1.3 Project Team. To accomplish Owner's objectives, Owner intends to employ a team concept in connection with the construction of the Project. The basic roles and general responsibilities of team members are set forth in general terms below but are more fully set forth in the Design Professional Contract with respect to the Design Professional, in the Program Management Agreement with any Program Manager, and in this Contract with respect to the Contractor.

1.1.1.3.1 Relationship of Parties. The Owner and the Contractor agree to proceed with the Project on the basis of trust, good faith, and fair dealing and to cooperate fully with each other. The Owner and the Contractor shall do all things reasonably necessary to perform this Contract in an economical and timely manner, including without limitation, consideration of design modifications to enhance constructability and alternative materials or equipment, if considered necessary or convenient by the Owner. The Contractor agrees to procure or furnish, as permitted by the laws of Georgia, all Pre-Commencement phase services and construction phase services as set forth herein. The Owner shall endeavor to promote harmony and cooperation among the Owner, Program Manager, Design Professional, Contractor and other persons or entities employed by the Owner for the Project.

1.1.1.3.2 Design Professional. The Design Professional is retained in accordance with the Design Professional Contract (i) for the design and preparation of Construction Documents that are necessary to implement the Program governing the construction of the Project or Components thereof, and the design and preparation of any necessary documents antecedent to preparation of such Construction Documents, or (ii) for construction contract administration of the Work under Contract Documents, or (iii) for both. The Contractor acknowledges and agrees that the Contract Documents are addressed to skilled tradesmen in the construction profession who shall be required to use their special skills and experience, through submittals and shop drawings, to translate the Design Professional's design intent as expressed in the Contract Documents into a completed structure. The Contract Documents shall specify when shop drawings or submittals require the seal of a specialty consultant.

1.1.1.3.2.1 The basis of the Owner's engagement of the Design Professional is the "Design Professional Contract." The Contractor is advised that both the Owner and the Design Professional have on file, at their respective places of business, copies of that executed agreement. The Design Professional is not the agent of the Owner, except to the extent so specified in writing, but is employed as a consultant to the Owner to assist the Owner in determining if the conditions of the contract have been met. All decisions of the Design Professional on matters of aesthetics are final, conclusive, and binding on all parties if consistent with the requirements of the Contract Documents.

1.1.1.3.2.2 The Contractor promptly shall request and review a copy of the Design Professional Contract during the Pre-commencement Phase and shall become familiar with the respective services, authorities, obligations, and responsibilities of the parties therein. Contractor agrees to develop a working relationship with the Design Professional to effectuate the purposes of the Project in accordance with the terms of this Contract and with consideration of the Design Professional's responsibilities under the Design Professional Contract.

1.1.1.3.2.3 The Contractor acknowledges that the respective contracts require the Owner and the Design Professional to proceed with the Project on the basis of trust, good faith, and fair dealing, and they will take all actions reasonably necessary to ensure the Project proceeds to completion within the Owner's time and budgeting constraints. The Contractor also acknowledges that the Design Professional is to perform all tasks and services required of it under the Design Professional Contract. The Contractor further acknowledges that, in order for the Design Professional to perform its obligations, the Design Professional requires certain materials, information, or other submittals pursuant to the Contract Documents from the Contractor. The Contractor agrees to provide the Design Professional with the submittals required by the Contract Documents. The Contractor further agrees to cooperate with the Design Professional to ensure timely completion of all obligations under this Contract to complete the entire Project.

1.1.1.3.2.4 Contractor agrees that the services provided by the Design Professional under the Design Professional Contract are intended to coordinate and complement, but not to diminish, alter or substitute for, any of the services, authority, obligations, or responsibilities of the Contractor under this Contract. Contractor further agrees that the performance of services by the Design Professional in connection with the Project shall in no way relieve Contractor from any of its services, authority, obligations, or responsibilities under this Contract, and shall not alter or diminish those services, authority, obligations, or responsibilities in any way whatsoever.

1.1.1.3.3 Program Manager. Owner may designate a Program Manager to administer the Project and this Contract. In lieu of a Program Manager, Design Professional may be designated to perform the role of Program Manager. The Program Manager may also be designated as the Owner's Representative, and if no Owner's Representative is designated, the Program Manager shall be the Owner's Representative.

1.1.1.3.4 Owner's Representative. Owner shall from time to time in writing designate one person as Owner's Representative under this Contract. Owner may designate the Program Manager, if any, as the Owner's Representative. Owner's Representative so designated in writing shall serve as Owner's Representative under this Contract unless or until Owner gives notice in writing of the appointment of his successor. Owner or Owner's Representative may designate in writing assistants to serve as Owner's Representative with respect to the Project governed by this Contract or in different phases or in specific areas of responsibility with respect to the Project. All requests for consents and approvals required of Owner in connection with the Project, whether by Program Manager, Design Professional, or Contractor, shall be submitted to Owner's Representative, or if the matter is within the written designation of authority of his assistant, to his designated assistant. It is expressly understood that no changes may be made to any contract for construction services which result in a net increase or decrease to the dollar value of the original contract awarded to provide such services without the approval of the Board of Education. The Superintendent is delegated authority to approve change orders up to \$50,000. All change orders over \$50,000 must be documented as a Board Resolution. In the event that immediate approval of a change order is required to prevent undue delay to a construction project, the Superintendent may approve change orders in excess of \$50,000 on an emergency basis. All emergency change orders approved by the superintendent, Chief Financial Officer, and one of the following: Board President/Vice President must be presented to the Board of Education at the next scheduled Board meeting. Change orders that are not properly authorized and executed will not be paid. No employee of the Board of Education has any authority to depart from these requirements. Neither the Program Manager nor the Design Professional has any authority to depart from these requirements.

1.1.1.3.5 Owner's Construction Inspector. Owner may from time to time in writing designate a person or firm as Owner's Construction Inspector under this Contract. The Owner's Construction Inspector may be hired by Owner or hired under the Program Manager's Contract or the Design Professional's Contract and shall provide inspection services of the Work on behalf of the Owner. The presence of an Owner's Construction Inspector does not relieve the Contractor of any of its responsibilities for quality control and independent testing set forth in the General Requirements. The Owner's Construction Inspector has the authority to report any deviations from the Contract Documents directly to the Contractor's superintendent

at the job site for immediate action, and also to report same to the Program Manager or Design Professional, and Owner.

1.1.1.3.6 Separate Contractor. Owner may select one or more Separate Contractors to perform work with respect to the Project or Components thereof. The Contractor shall afford the Owner's Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities and shall coordinate the Separate Contractors' schedules with those of the Contractor. The Owner's Separate Contractors shall adhere to the Contractor's work rules, schedule, laydown areas, and safety requirements.

1.1.2 Project Team, Cooperation, Partnering.

1.1.2.1 Concept. It is the Owner's expectation that the Program Manager, Design Professional, Owner, Contractor, and any Separate Contractor, shall work as a Project Team to effect the commencement of and completion of construction in accordance with the Project Schedule, and to achieve Final Completion of the Project. Each team member shall communicate with all other team members to assure overall coordination, cooperation, and efficiency. Each team member shall cooperate fully with and coordinate fully with each other team member in order to achieve Project completion in an expeditious and economical manner. The Contractor shall schedule regular meetings of the key principals of the Project Team in an effort to solve problems in a partnering atmosphere to facilitate the ability of each team member to meet its business objectives, so long as its business objectives are consistent with the successful completion of the Project. It is the Owner's intent that all consensus decisions of the Project Team, where differing from the Contract Documents, be reduced to writing in an appropriate Change Order.

1.1.2.2 Conference. Promptly after the execution of this Contract, Contractor shall confer with the Program Manager, Design Professional, and Owner to identify personnel and relevant organizational charts of each team member, and to establish working relationships with each team member.

1.1.2.3 Authority of Contractor. Contractor is, and at all times during the term of this Contract shall be, an independent contractor in the performance of its duties and obligations under this Contract. Contractor shall have no authority to bind or otherwise obligate Owner, orally, in writing or by any acts, unless specifically authorized by Owner in writing. Nothing contained in this Contract shall constitute or be deemed or construed to create a partnership or joint venture, or any agency relationship, between Owner and Contractor.

1.1.3 Constitutional Principles Applicable to State Public Works Projects.

1.1.3.1 Title to Project Site. Title to the Site is vested in The Board of Public Education for the City of Savannah and the County of Chatham, and is not subject to levy or lien.

1.1.3.2 Title to Improvements and Delivered Materials. Title to all improvements constructed at the Site vests *instanter* in the Owner. Title to all materials vests in the Owner upon their delivery without rejection by the Contractor at the Site, regardless of the status of payment or nonpayment of the costs thereto. Protection of laborers and Suppliers (regarding payment for services and materials) is effected through the provision of payment and performance bonds by the State.

1.1.3.3 Limited Waiver of Sovereign Immunity Ex Contractu. Contractor acknowledges and agrees that under Article I, Section II, Paragraph IX of the Georgia Constitution of 1983, sovereign immunity extends to a county-wide school district such as Owner. As set forth in Article I, Section II, Paragraph IX of the 1983 Georgia Constitution, sovereign immunity is waived "as to any action *ex contractu* for the breach of any written contract." Contractor specifically acknowledges the constitutional and contractual requirements that written changes, modifications, and waivers to this Contract must be specifically executed by the Owner as set forth in the Contract Documents. Accordingly, Contractor specifically acknowledges the constitutional prohibitions against claims against Owner based solely upon oral statement, course of conduct, customs of the trade, quasi-contract, *quantum meruit*, or O.C.G.A § 13-4-4 (mutual departure from contract terms).

1.1.4 Notice.

1.1.4.1 General Requirement. Any notice, election, demand, request, consent, approval, or other communication required or permitted to be given under this Contract shall be in writing signed by an officer or duly authorized representative of the party making same and shall be delivered personally or shall be sent by certified or statutory mail, postage prepaid, return receipt requested, shall be effective as of the date on which it is received or would have been received but for the refusal of the addressee to accept delivery, and shall be addressed as shown in the Contract. The persons and addresses to which notices should be given may be changed by notice given in accordance with this Article.

1.1.4.2 Copies of Notices to Owner. Wherever the Contract Documents provide that a copy of any notice, request, or demand filed with the Design Professional by the Contractor shall be furnished to the Owner, such notice, request, or demand shall not become effective until the Owner has received his copy. No notice in writing or given orally to the Design Professional or to the Contract Compliance Specialist is notice to the Owner unless copy of the aforesaid notice in writing shall have been properly served upon the Owner at the address shown in the Contract.

1.1.5 Liquidated Damages.

1.1.5.1 Time of the Essence. Time being of the essence of this Contract, and a material consideration thereof, it is mutually agreed by the parties hereto in case of the Contractor's failure to complete the construction within the time specified, the Owner will be damaged thereby. The Contractor shall commence performance of its activities on the Site within five days of the date specified in the Proceed Order. The Contractor shall complete construction, except for Minor Items and Permitted Incomplete Work (Scheduled Warranty Items) (see Article 6.1.1), not later than the Material Completion and Occupancy Date, as adjusted by Change Order.

1.1.5.2 Liquidated Damages. Because it is difficult to definitely ascertain and prove the amount of said damages, inclusive of, but not limited to, expenses for inspection, superintendence, loss of use, and necessary traveling expenses, the Owner, and Contractor hereby agree that the amount of such damages shall be the daily rate specified in the Contract, beginning upon the contractually required Material Completion and Occupancy Date and ending on the date that the Certificate of Material Completion is issued. The parties agree that the specified Liquidated Damages are not established as a penalty but are calculated and agreed upon in advance as a fair and equitable amount reasonably estimated in advance to cover losses to be incurred by the Owner for such delay or interruption in view of the uncertainty and impossibility of ascertaining actual damages that would be incurred.

1.1.5.2.1 Contractor Agrees to Pay. The Contractor agrees to pay the amount, computed by multiplying the Liquidated Damages set forth in the Contract by the number of days between the contractually required Material Completion and Occupancy Date and the date that the Certificate of Material Completion is issued.

1.1.5.2.2 Deducted as They Accrue. Liquidated Damages shall be deducted from periodic payments as they accrue and such deduction shall be in addition to the retainage provided for in the Contract. The remaining balance of any Liquidated Damages shall be deducted from the Payment for Material Completion to the Contractor or its Surety. If the unpaid balance of the Contract Sum is less than the total amount to be deducted for Liquidated Damages as herein above provided, the Contractor shall promptly pay to the Owner, upon the Owner's demand, the amount by which such sum exceeds the unpaid balance of the Contract Sum.

1.1.6 Documents.

1.1.6.1 Precedence of Documents and Changes. In the event of conflict, the Contract takes precedence over the Supplementary Conditions, and the Supplementary Conditions take precedence over the General Conditions. No change to the Contract Documents is effective unless notice shall have been issued by the Owner bearing the imprimatur of the Owner as follows:

"By order of The Board of Public Education for the City of Savannah and the County of Chatham."

The Design Professional has no authority to amend the Contract Documents, orally or in writing, either expressly or by implication.

1.1.6.2 Copies of Contract Documents to Contractor. Without charge to the Contractor the Design Professional shall furnish to the Contractor up to five sets of completed Contract Documents in hardcopy, one set of reproducible and electronic background floor and reflected ceiling plan drawings and, if requested, one copy in read-only electronic format. The Contractor may obtain such additional sets of Contract Documents, as the Contractor deems necessary and shall pay the cost of reproduction of such additional sets to the Design Professional.

1.1.6.3 Marked-Up (“As-Built”) Documents. Prior to Final Completion, the Contractor shall provide one complete set of Marked-Up Documents to the Design Professional. The Marked-Up Documents shall consist of the Contract Documents annotated and changed to reflect the as-built condition of the Project, including all Change Orders, field instructions, answers to RFI’s, clarifications, sketches, delegated contractor design drawings and locations of utilities and other hidden elements.

1.1.6.4 Copies to the Owner. Upon Owner’s request, the Contractor shall furnish the Owner with copies of Project related correspondence, letters of transmittal, etc.

1.1.7. Defined Terms. Wherever used in the Contract Documents, the terms defined in this Contract will have the meanings indicated that are applicable to both the singular and plural, and to the masculine and feminine thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents may include references to identified articles and paragraphs, and the titles of other documents or forms.

1.1.7.1 Meaning of Words and Phrases. Unless the context or the Contract Documents taken as a whole indicate to the contrary, words used in the Contract Documents that have usual and common meanings shall be given their usual and common meanings; words having technical or trade meanings shall be given their customary meaning in the subject business, trade, or profession. Materials or work described in words that, so applied, have a well-known technical or trade meaning shall be held to refer to such recognized meaning.

1.1.7.2 Cross-References, Headings, and Citations to the Contract. Cross-references, headings, and citations to the Contract, if any, are for the convenience of the Contractor and the Owner and are not intended to be plenary or exhaustive nor are they to be considered in interpreting the Contract Documents or any part of the Contract Documents.

1.1.7.3 Install, Deliver, Furnish, Supply, Provide and Other Such Words. Install, deliver, furnish, supply, provide, and other such words mean that the Work in question shall be put in place by the Contractor ready for use unless expressly provided to the contrary.

1.1.7.4 Articles Not Plenary. This Article and Article 1.1.9 are not entire, plenary, or exhaustive of all terms used in the Contract and General Conditions that require definition. There may be definitions of other terms under articles to which the terms are related.

1.1.8 Basic Definitions.

1.1.8.1 *Addenda.* Written or graphic instruments issued prior to the opening of bids that clarify, correct, or change any of the component parts of the Bidding documents.

1.1.8.2 *Affiliate.* With respect to Contractor, any firm, partnership, corporation or other legal entity that is owned by, under common ownership or control with, or having a common principal or shareholder with, the Contractor, whether such relationship is direct or indirect. In addition, unless the consequences of such relationship for the purposes of this Contract are expressly waived in writing by the Owner after full disclosure by the Contractor, the term “Affiliate” also includes any entity currently affiliated with Contractor as a partner or joint venture with respect to any commercial venture, whether or not such venture includes the Project. See O.C.G.A. §13-10-23.

1.1.8.3 *Affiliated Agreement.* Any agreement concerning the Project between the Contractor and an Affiliate, including all modifications and amendments thereto.

1.1.8.4 *Application for Payment.* The form acceptable to Owner that is to be used by the Contractor during the course of the Work in requesting payment from the Owner and that is to be accompanied by such supporting documentation as is required by the Contract Documents.

1.1.8.5 *Asbestos.* Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

1.1.8.6 *Bid.* The offer of a Bidder submitted on the prescribed form setting forth the Contract Sum for all activities required by the Bidding Documents.

1.1.8.7 *Bid Bond.* A bond, required by law, with a surety in accordance with the Instructions to Bidders, substantially in the form and substance specified in the Bidding Documents, with the Owner as obligee, and intended to secure the execution of the Contract by the Bidder.

1.1.8.8 *Bidding Documents.* The Construction Documents, the Invitation to Bid, the Instructions to Bidders, the Bid Form, and all Addenda, upon which the Bidder submits a Bid.

1.1.8.9 *Bulletin* Written or graphic material issued after the award of the contract that clarifies, corrects, or proposes a change in any of the component parts of the Contract Documents.

1.1.8.10 *Business Day.* A business day is each calendar day other than Saturday, Sunday, and any holiday observed by Owner.

1.1.8.11 *Change Order.* A document issued on or after the Effective Date of the Contract, signed by the Contractor and properly authorized by the Owner and ordinarily certified by the Design Professional, which may authorize a change or changes, including but not limited to a change to the Contract Sum, the Contract Time, or the Contract Documents

1.1.8.12 *Claim.* A demand or assertion by the Owner or the Contractor seeking an adjustment of the Contract Sum or Contract Time, or both, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and the Contractor arising out of or relating to the Contract. The responsibility to substantiate a Claim shall rest with the party making the Claim. A demand for money or services by a third party, including a Subcontractor or Supplier to the Contractor is ipso facto not a Claim against the Owner.

1.1.8.13 *Construction Documents.* The architectural and engineering documents setting forth the design for the Project prepared by the Design Professional. Construction Documents include, but are not limited to, the Specifications, the Drawings, the Supplementary Conditions, the General Conditions, and all Addenda.

1.1.8.14 *Construction Progress Schedule.* A schedule indicating proposed activity sequences and durations, milestone dates for receipt and approval of pertinent information, preparation, submittal, and processing of Shop Drawings and Samples, delivery of materials or equipment requiring long-lead time procurement, and proposed date(s) of Material Completion and Occupancy and Final Completion. The schedule will be developed to represent the sixteen or seventeen CSI Specification Divisions. It shall have a minimum number of activities as required to adequately represent to Owner the complete scope of work and define the Project's critical path and associated activities. If the Project is to be phased, then each individual Phase should be identified from start through completion of the overall Project and should be individually scheduled and described, including any Owner's occupancy requirements and showing portions of the Project having occupancy priority. The format of the schedule will have dependencies indicated on a monthly grid identifying milestone dates such as construction start, phase construction, structural top out, dry-in, rough-in completion, metal stud and drywall completion, equipment installation, systems operational, Material Completion and Occupancy Date, final inspection dates, Punchlist, and Final Completion date.

1.1.8.15 *Contract.* The written document that is the evidence of the Contract between the Owner and the Contractor.

- 1.1.8.16 *Contract Documents*. The Contract Documents include the executed Contract, the Bid, the Bidding Documents, and all Change Orders.
- 1.1.8.17 *Contract Sum*. The amount of money payable by the Owner to the Contractor for completion of the Pre-Commencement Services and the Work in accordance with the Contract Documents.
- 1.1.8.18 *Contract Time*. The period of time established for completion of the Project by the Contract Documents. Contract Time commences upon the date specified in the Proceed Order and ends upon the Material Completion and Occupancy Date, as it may be amended.
- 1.1.8.19 *Contractor*. The person or entity responsible for the proper completion of the activities described in the Contract Documents and who executes the Contract.
- 1.1.8.20 *Cost of the Work*. The sum of all allowable costs necessarily incurred and paid by Contractor in the proper performance of the Work.
- 1.1.8.21 *Day*. Unless otherwise stated, reference to the terms "day," "days," "month," or "months" mean calendar day, calendar days, calendar month, and calendar months, respectively.
- 1.1.8.22 *Defective Work*. Work that, for any reason, is not in compliance with the Contract Documents. Defective Work is usually identified in a Notice of Non-Compliant Work.
- 1.1.8.23 *Design Professional Contract*. The Contract between the Owner and the Design Professional for the design of the Project.
- 1.1.8.24 *Design Professional*. The architect or architectural firm selected by Owner (i) for the design and preparation of Contract Documents governing the construction of a Project, or (ii) for construction contract administration under the Contract Documents, or (iii) for both, all such services and the scope thereof to be set forth in the Design Professional Contract. The Design Professional is not an employee of the Owner but is engaged or retained by it for the purpose of performing design and construction administration services for the project. The term "Design Professional" includes architects, engineers, surveyors, designers, and other consultants retained by the Design Professional.
- 1.1.8.25 *Drawings*. That part of the Contract Documents prepared or approved by the Design Professional that graphically show the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
- 1.1.8.26 *Effective Date of the Contract*. The date indicated on the Contract or as otherwise specified therein.
- 1.1.8.27 *Emergency*. Any situation resulting in imminent danger to the public health or safety or the loss of an essential governmental service. See (O.C.G.A. 36-91-2(7)).
- 1.1.8.28. *Emergency Change Order*. A Change Order which requires immediate approval in order to prevent an emergency.
- 1.1.8.29 *Final Certificate, Design Professional's Certificate of Final Completion*. The Certificate issued by the Design Professional stating that all work has been completed in accordance with the terms of the Contract Documents. See Section 6, Project Completion.
- 1.1.8.30 *Final Completion*. The full and final completion of all Work in accordance with the Contract Documents.
- 1.1.8.31 *Final Notice of Non-Compliant Work*. The Final Notice of Non-Compliant Work issued as a result of the Inspection for Material Completion, also known as the Final Punch List. Upon the completion or correction of this Non-Compliant Work ("punch list" work) the Design Professional will issue the Final Certificate.
- 1.1.8.32 *Hazardous Substances*. See Section 1 Part 6.
- 1.1.8.33 *Material Completion and "Material Completion and Occupancy Date"*. See Section 6 Part 1.

1.1.8.34 *Milestone*. A principal event specified in the Contract Documents including the Material Completion and Occupancy Date and other events relating to an intermediate completion date or time.

1.1.8.35 *Notice*. Written notice. See Article 1.1.5.

1.1.8.36 *Notice of Apparent Successful Bid*. The written notice by the Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, the Owner will sign and deliver the Contract. The Construction Preparation Period begins on the Effective Date of the Contract. (See Section 2, Part 1.)

1.1.8.37 *Notice of Non-Compliant Work*. A Notice of Non-Compliant Work shall be in writing, shall be dated, shall be signed by the Design Professional, and shall be addressed to the Contractor with a copy to the Owner, as set forth in Section 3, Part 4 (Correcting the Work) and Section 6, Part 6 (Correcting the Work after Final Payment).

1.1.8.38 *Owner*. The Board of Public Education for the City of Savannah and the County of Chatham.

1.1.8.39 *Overall Project Schedule*. The Construction Progress Schedule that is approved by the Owner.

1.1.8.40 *Pre-Commencement Phase Services*. The services required to be provided by the Contractor for the Pre-Commencement Phase of the Project in accordance with the Contract Documents.

1.1.8.41 *Proceed Order*. The Proceed Order is a written notice from the Owner which authorizes the Contractor to commence physical work on the Site. A Proceed Order is a condition precedent to the execution of any Work on the site by the Contractor. The Proceed Order specifies a date upon which many critical time periods begin.

1.1.8.42 *Project*. The total and complete undertaking for the public works facility to be constructed under this Contract.

1.1.8.43 *Project Manual*. A bound manual prepared by the Design Professional. It includes the Invitation to Bid, Instructions to Bidders, the Bid Form, the Specifications, the General Conditions and Supplementary General Conditions.

1.1.8.44 *Samples*. Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged. The Contractor shall furnish for approval all samples required by the Contract Documents. The Work shall be in accordance with approved samples.

1.1.8.45 *Scope of Work*. The work that is required by this Contract. See (O.C.G.A. 36-91-2(14)).

1.1.8.46 *Separate Contractor*. Any person or entity other than Contractor that enters into an agreement with Owner to perform the construction of all or any portion of the construction on a Project.

1.1.8.47 *Site*. Lands or areas indicated in the Contract Documents as being furnished by the Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by the Owner that are designated for the use of the Contractor. Also referred to as Project Site, Job Site and Premises.

1.1.8.48 *Specifications*. That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto. The term "Specifications" shall also include all written matter in the Project Manual or on the drawings and any Addenda or Change Orders thereto.

1.1.8.49 *Subcontractor*. The generic term subcontractor as employed herein includes only those having a direct contract with the Contractor. The term includes a Trade Contractor, who furnishes and installs materials according to the plans and specifications of this Project

1.1.8.50 *Submittals.* Shop Drawings, schedules, data, catalogue cuts, manufacturers' published recommendations, charts, bulletins, brochures, illustrations, circulars, roughing drawings or formulae, etc., that are specifically prepared, distributed, or assembled by or for Contractor or by Subcontractors, manufacturers, or Suppliers and submitted by Contractor to illustrate some portion of the Work or for use in installing the Work. The Contract Documents shall specify when shop drawings or submittals require the seal of a specialty consultant.

1.1.8.51 *Successful Bidder.* The responsible Bidder submitting the lowest responsive Bid.

1.1.8.52 *Supplier.* A manufacturer, fabricator, distributor, supplier, or vendor of goods or equipment in connection with the Work, or any other party having a Contract or Purchase Order with the Contractor or with a Subcontractor to furnish materials or equipment to be incorporated in the Work by the Contractor or a Subcontractor.

1.1.8.53 *Underground Facilities.* All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including without limitation those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

1.1.8.54 *Unit Price Work.* Work to be paid for on the basis of unit prices as defined and described in the Contract Documents. A percentage markup for overhead or profit shall be included in all unit prices.

1.1.8.55 *Work.* All labor, materials, and services necessary to produce the construction of the Project in accordance with the Contract Documents, including the entire construction or the various separately identifiable parts thereof. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all equipment, fixtures, and supplies into such construction, all as required by the Contract Documents.

PART 2 – CONTRACTOR’S GENERAL RESPONSIBILITIES AND DUTIES

1.2.1 Contractor’s General Responsibilities.

1.2.1.1 Representations of Contractor.

1.2.1.1.1 Independent Contractor. The Contractor represents that it is an independent contractor, competent, knowledgeable, and familiar with the type of work contemplated by this Contract. The Contractor agrees and understands that neither it nor any of its agents or employees may act in the name of the Owner except and unless specifically authorized in writing by the Owner to do so. The Contractor shall furnish construction administration and management services and use the Contractor's best efforts to perform the Project in an expeditious and economical manner consistent with the interests of the Owner.

1.2.1.1.2 Familiarity with Project. Contractor represents that it has: (a) visited and examined the Site(s), (b) taken into account local conditions and observed conditions that affect the Project, the Work, or the cost thereof, (c) investigated the labor situation related to the Project, (d) examined the superintendence of the Project, the Work, the time of completion, and other relevant matters, and (e) has taken these into consideration in submitting his bid.

1.2.1.2 Responsibility to Coordinate. Contractor acknowledges its responsibility to coordinate the Work with that of Separate Contractors to be selected for the installation of other work within the Project, or in the proximity of the Project. Contractor expressly agrees to schedule and, with the assistance of Owner, coordinate the Work with such Separate Contractors and to permit each phase of the Project to be completed on schedule.

1.2.1.3 Project Delivery. Contractor shall construct the Project in accordance with the Contract Documents, and Contractor shall deliver the Project completed in accordance with the Contract Documents, substantially free from defects, and within the Contract Time.

1.2.1.4 Contractor's Warranty as to Performance. The Contractor warrants that he is familiar with the codes applicable to the Work and that he has the skill, knowledge, competence, organization, and plan to execute the Work promptly and efficiently in compliance with the requirements of the Contract Documents. The Contractor has the obligation to keep a competent superintendent on the Work during its progress, to employ only skilled workers, and to enforce strict discipline and good order among his employees. The Contractor is responsible for seeing that the Work is installed in accordance with the Contract Documents. Failure or omission on the part of the Owner, representatives of the Owner, agents of the Owner, engineers employed by the Design Professional, representatives of the Design Professional, or the Design Professional either to discover or to bring to the attention of the Contractor any deviation from, omission from, or noncompliance with the Contract Documents shall not be used by the Contractor or its surety as a defense for failure on his part to install the Work in accordance with the Contract Documents or for any other neglect to fulfill requirements of the Contract; neither shall the presence of any one, or all, or any of the foregoing at the Site or the fact that any one, or all, or any of the foregoing may have examined the Work or any part of the Work be used as a defense by the Contractor against a claim for failure on his part to install the Work in accordance with the Contract Documents or for any neglect to fulfill requirements of the Contract. No requirement of this Contract may be altered or waived except by Change Order.

1.2.2 Contractor’s General Duties.

1.2.2.1 Pre-Commencement Phase and Construction Phase Services. The Contractor shall provide and pay for all labor, materials, equipment, transportation, construction, resources, work, and services necessary or incidental to completing the Work for each phase of the Project in a proper and timely manner in accordance with the Contract Documents and applicable laws.

1.2.2.2 Supervision and Direction. Contractor shall supervise and direct the Work using diligent skill and attention. Contractor shall be responsible for and shall coordinate all construction means, methods, techniques, sequences, and procedures. (See Article 3.1.1 *et seq.*)

1.2.2.3 Enforce Discipline. Contractor shall at all times enforce strict discipline and good order among its employees, Subcontractors, and others performing the Work, and shall not employ or permit the employment of unfit persons or persons not skilled in the task assigned to them.

1.2.2.4 Security Clearances. Where work is required within a specially secured controlled access environment, work shall be performed by personnel who have passed a security screening.

1.2.2.5 Maintain Records. Contractor shall keep Owner informed of the progress of the Work. Contractor shall maintain records of the cost for the Work pursuant to and in compliance with GASB 34 accounting requirements and/or such other methods as Owner may require, including complete backup documentation for all pay applications.

1.2.2.6 Answer Questions. Contractor, with reasonable promptness and in accordance with time limits set by Owner, shall answer Owner's questions and provide Owner with requested Project information.

1.2.2.7 Acts and Omissions. Employees of or Subcontractors to the Contractor shall perform the Work required by this Contract. The Contractor is responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons.

1.2.2.8 Contractor. Contractor shall, in coordination with the Design Professional, accomplish the construction of the Project, including all required submittals, and such Change Orders as may be issued.

1.2.2.9 Meetings with the Owner. Contractor shall schedule and conduct meetings with the Owner, Design Professional, Separate Contractors, and appropriate Subcontractors, not less than biweekly, for the purpose of discussing the status and progress of the Work. Such meetings shall be held as often as Owner determines.

1.2.2.10 Schedule and Coordination Meetings. Contractor shall schedule and conduct meetings as necessary with Subcontractors, Suppliers, and other appropriate Project Team Members to coordinate and schedule the Work.

1.2.3 Audit. At the request of the Owner, the Contractor shall allow the Owner the opportunity to select an auditor to examine and inspect the Project and the Contractor's books, records, and any and all accounts and similar data related to the Project. The Owner shall bear the cost of such audit. The auditor may sign a confidentiality agreement before conducting any such audit. Notwithstanding such agreement, Contractor understands and agrees that all project records are subject to the Georgia Open Records Act.

PART 3 – OWNER’S GENERAL RESPONSIBILITIES AND RIGHTS

1.3.1 Owner’s Representative.

1.3.1.1 Written Designation. The Owner shall designate, in writing, an appropriate Owner’s representative. The Owner hereby designates the party identified in the Contract as its initial authorized representative and reserves the right to designate additional or replacement representatives by written notice to the Contractor. The Owner’s Representative has only limited authority to act without formal approval of the Board of Education. In this regard, see Section 1.1.1.3.4 above.

1.3.1.2 Accessibility. The Owner’s Representative shall be readily accessible (either on site or by computer, phone, fax or otherwise), shall be well acquainted with the Project, and shall have authority promptly to render decisions and to furnish information required of, or to be provided by, the Owner hereunder.

1.3.1.3 Independent Review and Inspection. The Owner may undertake independent inspection of the installation of the Work. Such independent inspector shall operate on behalf of the Owner and shall act to protect the best interests of the Owner.

1.3.2 Design Professional.

1.3.2.1 Design Professional to Design Work. The Design Professional Contract requires the Design Professional to design and to prepare the Contract Documents. The Design Professional Contract requires the Design Professional to designate a readily accessible representative (either on Site or by computer, phone or fax or otherwise) who shall have authority promptly to render decisions and to furnish information required of the Design Professional.

1.3.2.2 Copies of Contract Documents to Contractor. The Design Professional Contract requires that the Contractor be furnished, free of charge, up to five sets of completed Contract Documents in hard copy, one full set of reproducible drawings and electronic background floor and reflected ceiling plan drawings and one complete copy in read-only electronic format. The Contractor may obtain such additional sets of Contract Documents as the Contractor deems necessary and shall pay the cost of reproduction of such additional sets to the Design Professional.

1.3.2.3 Contract Administration. The Design Professional shall provide periodic review of the Work to assess compliance with the Contract Documents. The Design Professional shall not review any Work in respect to safety. The Design Professional is not the agent of the Owner, but is engaged as a consultant to the Owner to assist the Owner in determining if the conditions of the contract have been met. He is the agent of the Owner only when in special instances he is authorized in writing by the Owner so to act, and in such instances he shall, upon request, show the Contractor written authority. He has authority to stop the Work whenever such stoppage may be necessary to enforce the proper execution of the Contract.

1.3.2.4 Impartial Decisions. The Design Professional is the interpreter of the conditions of the Construction Contract and the judge of its performance, in the first instance. The Design Professional shall side neither with the Owner nor with the Contractor, but shall use its powers to enforce performance by both.

1.3.2.5 Design Professional Decisions. Design Professional’s decisions must be in writing and signed by the Design Professional of Record.

1.3.2.5.1 Promptness. The Design Professional shall make decisions within fourteen calendar days after proper presentation of evidence on (1) any issue, claim, or dispute of the Owner or Contractor, or (2) a demand of the Owner or Contractor for a decision on any matter relating to the execution or progress of the Work.

1.3.2.5.2 Additional Time. If because of events beyond the Design Professional’s reasonable control, it is not able to meet the specified time period, then it should be entitled to ask the Owner for additional time, which request shall not be unreasonably denied.

1.3.2.5.3 Protests of Design Professional’s Decisions. All decisions of the Design Professional on any claim, dispute, or demand shall be final and binding on the Contractor in the absence of written notice of protest from the Contractor received by the Owner within fourteen calendar days of the date of the decision of the Design Professional is received by the contractor. See Section 5 Part 2.

1.3.2.6 Aesthetics. All decisions of the Design Professional on matters of aesthetics are final, conclusive, and binding on all parties if consistent with the requirements of the Contract Documents.

1.3.2.7 Succession. In case of the termination of the employment of the Design Professional, the Owner shall appoint a capable and reputable Design Professional against whom the Contractor makes no reasonable objection and whose status under the Contract shall be that of the former Design Professional.

1.3.3 Permits, Licenses, and Inspections. The Owner shall cooperate with the Contractor in obtaining building and other permits, licenses, and inspections. See also Subparagraph 2.1.2.2.3.

1.3.4 Testing. The Owner shall provide and pay for initial and subsequent independent construction testing as required by the Contract Documents. Laboratories for testing services shall be selected by, engaged by, and responsible to the Design Professional. In the case of tests (a) prescribed in the Contract Documents or any part thereof, or (b) requested by the Design Professional, the Contractor must give notice to the selected testing agency stating the date and the hour when he will be ready for the test to be made. In the event the test fails or the Contractor is not ready for the test, the expense of the services of the testing laboratory shall be deducted from the Contract Sum, upon notice to the Contractor by the Owner accompanied by a copy of the invoice for the testing services for the test that failed or for which the Contractor was not ready. The notice and readiness provisions of this article do not apply to verification of design mix on concrete.

1.3. Disqualification of Potential Subcontractors. The Owner must expressly approve, and such approval shall not be unreasonably withheld, the change or substitution of any potential subcontractor other than those listed on the List of Potential Subcontractors submitted by the Contractor with the Contractor’s Bid the Owner may disqualify for just cause any potential subcontractors.

1.3.6 Owner’s Right to Perform Work. The Owner reserves the right to perform construction or operations related to the Project with Separate Contractors on the Site. If the Contractor claims that delay or additional cost is because of such action by the Owner, the Contractor shall assert such claims as provided in Section 5, Part 2 of the General Conditions.

PART 4 – PROTECTION OF PERSONS AND PROPERTY

- 1.4.1 Reasonable Precautions.** The Contractor shall take reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury or loss to: (a) employees performing the Work and other persons, including without limitation the General Public, who may be affected thereby; (b) the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site, under care, custody, or control of the Contractor or the Contractor's Subcontractors; or (c) other property at or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation, replacement or other rearrangement in the course of construction.
- 1.4.2 Duty to Protect Property.** The Contractor shall continuously maintain adequate protection of the Work from damage and shall protect all other property on the Site from damage, injury, or loss regardless of who may be the owner of said property. He shall make good any such damage, injury, or loss.
- 1.4.3 Safety Precautions.** The Contractor shall comply with the rules and regulations of OSHA and the Department of Labor (O.C.G.A. Section §34-2-6), and, where not inconsistent with the foregoing, the "Manual of Accident Prevention in Construction" issued by the Associated General Contractors of America, Inc., for safety and prevention of accidents, and shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work arising out of and in the course of employment on work under the Contract. The Contractor alone shall be responsible for the safety, efficiency, and adequacy of his plant, appliances, and methods, and for any damage that may result from their improper construction, maintenance, or operations. He shall erect and properly maintain at all times, as required by the conditions and progress of the Work, proper safeguards for the protection of workers and the public and shall post danger warnings against any hazards created by the construction operations. The Contractor shall designate a responsible member of his organization, normally the superintendent, whose duty shall be the prevention of accidents.
- 1.4.4 Emergencies.** In an emergency affecting the safety of persons or property or the Work or of adjoining property, the Contractor shall take reasonable precautions to prevent imminent damage, injury, or loss.
- 1.4.5 Fire Protection.** Contractor shall take adequate and reasonable precautions to protect the Work against damage by fire and smoke. For example, without limitation, Contractor shall do the following:
- (a) Provide fire extinguishers or fire hoses in readily accessible locations;
 - (b) Periodically inspect fire extinguishers, remove discharged extinguishers immediately, and replace with new or recharged extinguishers;
 - (c) Keep fire extinguishers or fire hoses within five (5) feet of any welding or open flame operations;
 - (d) Remove oil-soaked and paint-soaked materials, including paper and rags, from the Site daily, and more frequently as necessary, to eliminate danger of fire.
 - (e) Prohibit workers from smoking during operations involving combustible adhesives, solvents, mastics, or other fire hazard materials.
- 1.4.6 Remedy Damages.** The Contractor shall promptly remedy damages and loss to property at the Site caused by the Contractor, by any Subcontractor, by anyone directly or indirectly employed by the Contractor or any such Subcontractor, or by anyone for whose acts the Contractor or any such Subcontractor may be liable. Should the Contractor cause damage to any Separate Contractor's work, the Contractor agrees, upon due notice, to settle with the Separate Contractor.
- 1.4.7 Written Programs.** Contractor shall have written environmental, quality control, crisis/emergency management, and health and safety programs in place with a designated (qualified) coordinator as the point of contact during the project. Such plans shall be on the Site and the superintendent and the project management team shall be familiar with and utilize such programs.

PART 5 – BONDS, INDEMNITY, AND INSURANCE

1.5.1 Bonds

1.5.1.1 Performance Bond and Payment Bond. The Contractor shall furnish both a performance bond and a payment bond in the exact form set forth in Section 7, (Forms) of these General Conditions.

1.5.1.2 Required Qualifications for Surety. The Contract provides that the surety and insurance companies must be acceptable to the Owner. Only those sureties listed in the Department of Treasury's Listing of Approved Sureties (Department Circular 570) are acceptable to the Owner. All bonds at the time of issuance must be issued by a company authorized by the Insurance Commissioner to transact the business of suretyship in the State of Georgia, and shall have a Best Policyholders Rating of "A-" or better and with a financial size rating of Class V or larger.

1.5.1.3 Penal Amount of Bonds, State Law. The Contractor acknowledges and agrees that, pursuant to O.C.G.A. Title 36 Chapter 91, the performance bond and the payment bond must be in a penal amount equal to at least 100% of the Contract Sum. Accordingly, the Contractor warrants and agrees that, for any Change Order increasing the Contract Sum by five percent or more or when the total cost of the work has increased by five percent or more,, it shall obtain a written amendment to the payment bond and the performance bond increasing the penal amounts of both bonds to 100% of the Contract Sum, effective as of the date of the Change Order. The premium increase, if any, may be properly included in the cost of the Change Order. The Design Professional shall approve no payment for the work provided by the Change Order until the Contractor has provided the written amendment to the Owner.

1.5.2 Liability and Indemnification.

1.5.2.1 General Liability. The Contractor shall be responsible to the Owner from the time of the signing of the agreement or the beginning of the first work, whichever shall be earlier, for all injury or damage of any kind resulting from any negligent act or omission or breach, failure or other default regarding the Work by the Contractor, or any of its Subcontractors, its agents, employees or others working at the direction of the Contractor or on its behalf, regardless of who may be the owner of the property.

1.5.2.2 Indemnification Agreement. Contractor hereby agrees to indemnify and hold harmless the Owner, and all of its respective board members, officers, and employees (hereinafter collectively referred to as the "Indemnitees") from and against any and all claims, demands, liabilities, losses, costs or expenses, including attorneys' fees, made by a third party or parties, for any loss due to bodily injury (including death), personal injury, and property damage arising out of or resulting from the performance of this Contract or any act or omission on the part of the Contractor, its agents, employees or others working at the direction of Contractor or on its behalf., or due to any breach of this Contract by the Contractor, or due to the application or violation of any pertinent Federal, State or local law, rule or regulation. This indemnification extends to the successors and assigns of the Contractor. This indemnification obligation survives the termination of the Contract and the dissolution or, to the extent allowed by law, the bankruptcy of the Contractor. Nor do the parties intend for this indemnification provision to extend to claims for losses or injuries or damages caused solely by the negligence of Owner, its board members, officers, or employees.

1.5.2.2.1 This indemnification does not extend beyond the scope of this Contract and the work undertaken thereunder. Nor does this indemnification extend to claims for losses or injuries or damages incurred directly by the Indemnitees due to breach, negligence or default by the Indemnitor under the terms and conditions of this Contract.

1.5.2.2.2 This indemnification does not extend to claims for losses or injuries or damages incurred by the Indemnitees due to any negligent act, error, or omission of a design professional in the performance of professional services that fails to meet the applicable professional standard of care, skill and ability as employed by others in their profession.

1.5.2.2.4 Suits or Claims for Infringement. The Contractor shall indemnify and hold the Owner harmless from any suits or claims of infringement of any patent rights or copyrights arising out of any patented or copyrighted materials, methods, or systems used by the Contractor.

1.5.3 Insurance Requirements.

1.5.3.1 Insurance Certificates. The Contractor shall, in accordance with 2.1.2.2.2, procure the insurance coverages identified below at the Contractor's expense (e.g. within the bid price and Contract Sum) and shall furnish the Owner an insurance certificate listing the Owner as the certificate holder and as an additional insured. Evidence of insurance coverages shall be provided on the form shown in Section 7 or on a form acceptable to the Owner. The insurance certificate must provide the following:

- (a) Name and address of authorized agent
- (b) Name and address of insured
- (c) Name of insurance company(ies)
- (d) Description of policies
- (e) Policy Number(s)
- (f) Policy Period(s)
- (g) Limits of liability
- (h) Name and address of Owner as certificate holder
- (i) Project Name and Number
- (j) Signature of authorized agent
- (k) Telephone number of authorized agent
- (l) Mandatory thirty day notice of cancellation or non-renewal (except ten days for non payment).

1.5.3.2 Insurer Qualifications, Insurance Requirements. Each of the insurance coverages required below (i) shall be issued by a company licensed by the Insurance Commissioner to transact the business of insurance in the State of Georgia for the applicable line of insurance, and (ii) shall be an insurer (or, for qualified self-insureds or group self insureds, a specific excess insurer providing statutory limits) with a Best Policyholders Rating of "A-" or better and with a financial size rating of Class V or larger. Each such policy shall contain the following provisions:

1.5.3.2.1 The insurance company agrees that the policy shall not be canceled, changed, allowed to lapse or allowed to expire until thirty days after the Owner has received written notice thereof, as evidenced by return receipt of certified mail or statutory mail, or until such time as other insurance coverage providing protection equal to protection called for in this Contract shall have been received, accepted and acknowledged by the Owner. Such notice shall be valid only as to the Project as shall have been designated by Project Number and Name in said notice.

1.5.3.2.2 The policy shall not be subject to invalidation as to any insured by reason of any act or omission of another insured or any of its officers, employees, agents or other representatives ("Separation of Insureds").

1.5.3.2.3 All deductibles shall be paid for by the Contractor.

1.5.3.2.4 Self-insured retention, except for qualified self-insurers or group self-insurers, in any policy shall not exceed \$100,000.00.

1.5.3.3 Required Insurance Coverages. The Contractor also agrees to purchase insurance and have the authorized agent state on the insurance certificate that the Contractor has purchased the following types of insurance coverages:

1.5.3.3.1 Workers' Compensation Insurance. The Contractor agrees to provide at minimum Workers' Compensation coverage in accordance with the statutory limits as established by the General Assembly of the State of Georgia. A group insurer must submit a certificate of authority from the Insurance Commissioner approving the group insurance plan. A self-insurer must submit a certificate from the Georgia Board of Workers' Compensation stating the Contractor qualifies to pay its own workers' compensation claims. The Contractor shall require all Subcontractors performing work under this Contract to obtain an insurance certificate showing proof of Workers' Compensation Coverage and shall submit a certificate on the letterhead of the Contractor in the following language:

This is to certify that all Subcontractors performing work on this Project are covered by their own workers' compensation insurance or are covered by the Contractor's workers' compensation insurance.

1.5.3.3.2 Employers' Liability Insurance. The Contractor shall also maintain Employer's Liability Insurance Coverage with limits of at least:

- (i) Bodily Injury by Accident - \$1,000,000 each accident; and
- (ii) Bodily Injury by Disease - \$1,000,000 each employee.

The Contractor shall require all Subcontractors performing work under this Contract to obtain an insurance certificate showing proof of Employers Liability Insurance Coverage and shall submit a certificate on the letterhead of the Contractor in the following language:

This is to certify that all Subcontractors performing work on this Project are covered by their own Employers Liability Insurance Coverage or are covered by the Contractor's Employers Liability Insurance Coverage.

1.5.3.3.3. Commercial General Liability Insurance. The Contractor shall provide Commercial General Liability Insurance (2004 ISO Occurrence Form or equivalent) that shall include, but need not be limited to, coverage for bodily injury and property damage arising from premises and operations liability, products and completed operations liability, blasting and explosion, collapse of structures, underground damage, personal injury liability and contractual liability. The CGL policy must include separate aggregate limits per Project and shall provide at a minimum the following limits:

Coverage	Limit
1. Premises and Operations	\$ 1,000,000.00 per Occurrence
2. Products and Completed Operations	\$ 1,000,000.00 per Occurrence
3. Personal Injury	\$ 1,000,000.00 per Occurrence
4. Contractual	\$ 1,000,000.00 per Occurrence
5. General Aggregate	\$ 2,000,000.00 per Project

Additional Requirements for Commercial General Liability Insurance are shown below at Paragraph 1.5.3.3.6.

1.5.3.3.4 Commercial Business Automobile Liability Insurance. The Contractor shall provide Commercial Business Automobile Liability Insurance that shall include coverage for bodily injury and property damage arising from the operation of any owned, non-owned, or hired automobile. The Commercial Business Automobile Liability Insurance Policy shall provide not less than \$1,000,000 Combined Single Limits for each occurrence. Additional Requirements for Commercial Business Automobile Liability Insurance are shown below at Paragraph 1.5.3.3.6.

1.5.3.3.5 Commercial Umbrella Liability Insurance. The Contractor shall provide a Commercial Umbrella Liability Insurance to provide excess coverage above the Commercial General Liability, Commercial Business Automobile Liability and the Workers' Compensation and Employers' Liability to satisfy the minimum limits set forth herein. The umbrella coverage shall follow form with the Umbrella limits required as follows:

<i>For Contract Amounts Less Than \$5,000,000.00:</i>	<i>For Contract Amounts Equal to or Greater than \$5,000,000:</i>
\$ 2,000,000 per Occurrence	\$2,000,000 per Occurrence
\$ 4,000,000 Aggregate	\$10,000,000 Aggregate

1.5.3.3.6 Additional Requirements for Commercial Policies in Paragraphs 1.5.3.3.3 through 1.5.3.3.5

(a) All insurance policies, other than the Workers Compensation policy, provided by Contractor to meet the requirements of this Agreement shall name **The Board of Public Education for the City Of**

Savannah and the County of Chatham as that name is defined below, as an additional insured as to the operations of Contractor under the Contract Documents and shall contain a severability of interests provisions.

The term “**The Board of Public Education for the City of Savannah and the County of Chatham.**” shall include the Savannah-Chatham County Public School District, a body corporate, and all Authorities, Boards, Bureaus, Commissions, Divisions, Departments and offices thereof, the Board of Education for the City of Savannah and the County of Chatham, which is the governing body of the Savannah-Chatham County Public School District, the individual Board Members comprising the Board of Education, and all of the officers, employees or other agents of the District in their official capacity, and/or while acting on behalf of or at the direction of **The Board of Public Education for the City of Savannah and the County of Chatham.**

(b) The policy must be on an "occurrence" basis.

1.5.3.3.7 Builders Risk Insurance. Contractor shall provide a Builder's Risk Policy to be made payable to the Owner and Contractor, as their interests may appear. The policy amount should be equal to 100% of the Contract Sum, written on a Builder's Risk "All Risk", or its equivalent. The policy shall be endorsed as follows:

The following may occur without diminishing, changing, altering or otherwise affecting the coverage and protection afforded the insured under this policy:

- (i) Furniture and equipment may be delivered to the insured premises and installed in place ready for use; and
- (ii) Partial or complete occupancy by Owner; and
- (iii) Performance of work in connection with construction operations insured by the Owner, by agents or lessees or other Contractors of the Owner.

In the event that the Contract is for renovation, addition or modification of an existing structure and Builders Risk Insurance is not available, the Owner will accept an Installation Floater Insurance Policy with the above endorsements in lieu of the Builders' Risk Insurance Policy. Such floater must insure loss to materials and equipment prior to acceptance by Owner and must be on an ALL RISK BASIS with the policy written on a specific job site.

1.5.3.3.8. Certificate of Insurance. The Contractor shall provide the Owner with a Certificate of Insurance identifying the policies it has that satisfy these insurance requirements using the Form attached as an exhibit hereto.

1.5.3.3.9. Disposition of Insurance Documents. One original certificate of insurance with all endorsements attached must be deposited with Owner for each insurance policy required.

1.5.3.4 Termination of Obligation to Insure. Unless otherwise expressly provided to the contrary, the obligation to insure as provided herein shall not terminate until the Design Professional shall have executed the Certificate of Material Completion.

1.5.3.5 Failure of Insurers. The Contractor is responsible for any delay resulting from the failure of his insurance carriers to furnish proof of proper coverage in the prescribed form.

PART 6 – HAZARDOUS CONDITIONS AND MATERIALS

1.6.1 Hazardous Materials.

1.6.1.1 Definition.

1.6.1.1.1 The term "Hazardous Materials shall mean any material or substance within the meaning and definition for "Hazardous Substance" and/or "Hazardous Waste" as those terms are employed and set forth in the Georgia Hazardous Site Response Act and the Comprehensive Environmental Response Compensation and Liability Act as amended, 42 USC § 6901 et seq., and regulations promulgated thereunder (collectively "CERCLA") and any corresponding state or local law or regulation, and shall also include: (a) any Pollutant or Contaminant as those terms are defined in CERCLA; (b) any Solid Waste or Hazardous Constituent as those terms are defined by, or are otherwise identified by, the Resource Conservation and Recovery Act as amended, 42 USC § 6901 et seq., and regulations promulgated thereunder (collectively "RCRA") and any corresponding state or local law or regulation; (c) crude oil, petroleum and fractions of distillates thereof and petroleum releases ; (d) any other material, substance or chemical defined, characterized or regulated as toxic or hazardous under any applicable law, regulation, ordinance, directive or ruling, including, but not limited to, Asbestos or polychlorinated biphenyl (PCB),and, (e) any infectious or medical waste or environmental contamination as defined by any applicable federal or state laws or regulations.

1.6.1.1.2 The term "Hazardous" Materials does not include those materials that are expressly and specifically required to be installed under the Contract Documents.

1.6.1.1.3 The term "Hazardous" Materials does not include products or materials that are commonly used in construction or industrial practice so long as they are used in accordance with the manufacturer's instructions or Material Safety Data Sheets issued for the product or materials. (See Article 1.6.3 below.)

1.6.1.2 Obligation to Notify Owner of Existing Hazardous Materials. The Contractor shall immediately notify the Owner and the Design Professional, both orally and in writing, of the presence and location of any physical evidence of, or information regarding the presence of Hazardous Materials at the Site of which it becomes aware. If the Contractor encounters Hazardous Materials on the Site the Contractor shall (i) immediately stop performance of Work or that portion of the Work affected by or affecting such Hazardous Materials; (ii) secure the contaminated area against intrusion; (iii) not disturb or remove the Hazardous Materials; (iv) not proceed, or allow any Subcontractor or Supplier to proceed, with any Work or other activities in the area affected by such Hazardous Materials until such materials have been properly remediated and until directed in writing to do so by the Owner; and, (v) take any other steps necessary to protect life and health and the surrounding environment. The Contractor shall be entitled to adjustment of the Contract Time and the Contract Sum pursuant to Section 5, Part 2 of these General Conditions in order to compensate for the impact of any required demolition, re-work, shutdown, delay, protection of work, disruption, and start-up resulting from the encountering of such Hazardous Materials on the Site for which the Contractor is not responsible.

1.6.1.3 Prohibition Against Selecting and Installing Products Containing Hazardous Materials. The Contractor shall not select, install or otherwise incorporate any products or materials containing Hazardous Materials within the boundaries of the Site. Should the Contractor or any Subcontractors have knowledge that, or believe that, an item, component, material, substance, or accessory within a product or assembly selected by the Design Professional, Contractor or any Subcontractor may contain Hazardous Materials it is the Contractor's responsibility to secure a written certification from the manufacturer of any suspected material which identifies the specific Hazardous Material(s) contained, together with the Material Safety Data Sheets (MSDS) for such materials which shall be submitted to the Owner and Design Professional.

1.6.1.4 Fill, Backfill and Landscaping. No soil found on Site, or transported to the Site from remote locations, which contains debris or waste or Hazardous Materials shall be used for fill, backfill or landscaping topsoil.

1.6.2 **Responsibility and Warranty of Subcontractors, and Suppliers.** Products that are specified by reference standards or in descriptive manner without a manufacturer's name, model number or trade name, to be selected by the Contractor, shall not contain Hazardous Materials in any form, except as and to the extent permitted in 1.6.1, above, and 1.6.3, below. The Contractor shall require that each of its Subcontractors and Suppliers warrant

to the Owner and Design Professional that all materials, products and assemblies, other than those which specifically and expressly required by the Contract Documents, incorporated, or submitted for incorporation into this Project, are free of Hazardous Materials. This warranty shall also include all materials, components, and accessories not specifically enumerated or detailed in the Contract Documents but which are required by performance specifications or recommended by manufacturers for complete installation of materials, products and assemblies.

1.6.3 Hazardous Materials and Substances Used On the Job Site. Products containing Hazardous Materials may be employed in the performance of work by the Contractor and its Subcontractors, as allowed by subparagraph 1.6.1.1.2 and 1.6.1.1.3 above, as a means and methods application or as part of its performance of the Work, such as chemicals used on the Site, but only provided that: (i) such products are used in accordance with the manufacturer's instructions and Material Safety Data Sheets; (ii) such products are rendered harmless upon completion of the affected Work; (iii) reasonable precautions can be and are taken to prevent foreseeable bodily injury or death to persons involved in the Work or in its proximity, including the ultimate users of the completed Work; (iv) the Contractor shall make available to the Owner and the Design Professional copies of Material Safety Data Sheets (MSDS) for any such products used on the Site, and (v), the Contractor shall immediately notify Owner, Design Professional and appropriate regulatory agencies if there is a spill or release or misuse of any such product used on the Site that exceeds State or Federal reportable limits.

1.6.4 Hazardous Conditions. The Contractor and Owner acknowledge that previously unknown hazardous conditions may be uncovered at any job site, and in particular where existing structures are being demolished and/or remodeled to accommodate new construction or to reutilize existing facilities. Should a hazardous condition not involving Hazardous Materials as set forth above be encountered on the Site, and should reasonable safety precautions be deemed by the Contractor in good faith to be inadequate to prevent foreseeable personal injury to persons encountering the hazardous condition, the Contractor shall, upon recognizing the hazardous condition, stop work in the affected area and immediately report the hazardous condition to the Design Professional and Owner in writing. The Owner shall undertake, or shall contract (by Change Order) with the Contractor or contract with a Separate Contractor, to resolve the condition. So long as the hazardous condition did not result from activities or substances brought on the Site by the Contractor, the Contractor is entitled to adjustments in the Contract Time and the Contract Sum as set forth in Paragraph 1.6.1.2 above.

PART 7 – MISCELLANEOUS PROVISIONS

1.7.1 Legal Compliance.

1.7.1.1 General. This Contract shall be governed by the law of Georgia. The Contractor shall comply with all laws, rules, regulations, ordinances, and orders of any government agency having jurisdiction in the performance of the Work and shall ensure the compliance of its Subcontractors, including but not limited to the Georgia Department of Education. Contractor shall, at Owner's request, execute such forms as may be necessary for the Owner to comply with requirements of any state or government agency, such as Department of Education Form 0263, the Request for Reimbursement Form.

1.7.1.2 Specific Laws. Without limiting the generality of the foregoing Paragraph, the following laws are specifically referenced:

- 1.7.1.2.1 The Drug-Free Workplace Act, O.C.G.A. § 50-24-1, *et seq.*
- 1.7.1.2.2 Standards and Requirements for Construction, Alterations, etc., O.C.G.A. § 8-2-1 *et seq.*
- 1.7.1.2.3 Control of Soil Erosion and Sedimentation, O.C.G.A. § 12-7.1, *et seq.*
- 1.7.1.2.4 Regulation of Fire and other Hazards, O.C.G.A. § 25-2-1 *et seq.*
- 1.7.1.2.5 Providing safe workplace, O.C.G.A. §§ 34-2-10 and 34-7-20
- 1.7.1.2.6 High Voltage Safety Act, O.C.G.A. § 46-3-30 *et seq.*
- 1.7.1.2.7 Access and Use by Physically Handicapped Persons, O.C.G.A. § 30-3-1 *et seq.*
- 1.7.1.2.8 The Georgia Security and Immigration Compliance Act, O.C.G.A. Sections 13-10-90 *et seq.* and regulations of the Commissioner of the Georgia Department of Labor.

1.7.1.3 Building Codes. The following Building Codes, in the latest editions approved by the Georgia Department of Community Affairs, shall be used. (See O.C.G.A. §8-2-20.) The Design Professional will designate any additional codes or special modifications in the Supplementary General Conditions.

- 1.7.1.3.1 Georgia State Minimum Standard Building Code (International Building Code (ICC) with Georgia Amendments),
- 1.7.1.3.2 Georgia State Minimum Standard Mechanical Code (International Mechanical Code (ICC) with Georgia Amendments).
- 1.7.1.3.3 Georgia State Minimum Standard Gas Code (International Fuel Gas Code (ICC) with Georgia Amendments).
- 1.7.1.3.4 Georgia State Minimum Standard Plumbing Code (International Plumbing Code (ICC) with Georgia Amendments).
- 1.7.1.3.5 Georgia State Minimum Standard Electric Code (National Electrical Code (NFPA) with Georgia Amendments).
- 1.7.1.3.6 Georgia State Minimum Standard Energy Code (International Energy Conservation Code (ICC) with Georgia Amendments).
- 1.7.1.3.7 Georgia State Minimum Standard Fire Prevention Code (International Fire Code (ICC) with Georgia Amendments).

1.7.1.4 Fire, Life Safety, and Accessibility Codes. The following codes, in the latest editions approved by the Georgia State Fire Marshal/Fire Safety Commissioner and Department of Human Resources, shall be used. The

Design Professional will designate any additional codes or special modifications in the Supplementary General Conditions.

1.7.1.4.1 Georgia State Life Safety Code (NFPA 101)

1.7.1.4.2 State Accessibility Codes (See O.C.G.A. §30-3-3)

1.7.1.4.3 Rules and Regulations of the Georgia Safety Fire Commissioner (See O.C.G.A. §§25-2-4,12.)

1.7.1.4.4 Swimming Pool Permits and Regulations (See O.C.G.A. §31-45-3, Rules and Regulations Chapter 290-5-57)

1.7.1.5 Latest Edition. The latest edition approved by the implementing agency of the regulations, rules, and codes listed in Paragraphs 1.7.1.2, 1.7.1.3, 1.7.1.4 above, with all amendments as of the date of execution of the Design Professional Contract, shall govern the installation of all Work and is adopted and incorporated into the Contract Documents and made a part thereof by reference. However, the drawings and specifications shall be adhered to in all cases where they call for quality of materials, quality of workmanship, or quality of construction which is equal to or in excess of the quality required by the above stated codes. There may be no variances from the drawings and specifications except to the extent that the said variances shall be necessary in order to comply with the above stated codes. It shall be the responsibility of the Contractor to familiarize himself with the requirements of the above stated codes. If there are any express requirements in the drawings or specifications that are at variance to the above stated codes, all changes in the Work necessary to eliminate or add to the said requirements and make the Work conform to the above stated codes shall be adjusted as provided in the Contract for changes in the Work.

1.7.2 Surveys, Permits, and Regulations. The Owner shall furnish all surveys unless otherwise specified. Permits and licenses of a temporary nature necessary for the prosecution of the Work shall be obtained and paid for by the Contractor. Permits, licenses, and easements for permanent structures or permanent changes in existing facilities shall be obtained and paid for by the Owner unless otherwise specified. The Contractor and its Subcontractors must pay any municipal or county occupational licenses, taxes, or fees, if any. The Contractor shall give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the Work. If the Contractor observes that the drawings or specifications are at variance with any such laws, ordinances, rules or regulations, he shall promptly notify the Owner in writing, and any necessary changes shall be adjusted as provided in the Contract for changes in the Work. If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules or regulations without such notice to the Owner, he shall bear all costs arising therefrom. Nothing in this paragraph shall be construed to impose design responsibility on the Contractor except as noted in the Contract Documents.

1.7.3 Open Records Act. Owner and Design Professional and Contractor acknowledge and agree that all records of the project and the Work, including records of Subcontractors, are subject to the Georgia Open Records Act, O.C.G.A. §50-18-70 et seq., with particular attention being called to O.C.G.A. §50-18-70(a) regarding the records of private persons, firms, corporations, or other private entity engaged in performance of services or functions on behalf of a state agency, public agency or public office.

1.7.4 Use of Site. The Contractor has a revocable license to come on, use, and perform Work upon the Premises, shall confine thereto his plant, his apparatus, the staging and storage of materials, the operations of his forces and the Work to limits indicated by law, ordinances, permits, or the Contract Documents, and shall not unreasonably encumber the Premises with his materials. The Contractor shall not load or permit any part of the Work to be loaded with weight that will endanger its safety. The Contractor shall enforce Contract requirements regarding signs, advertisements, fires, and smoking and shall remove from the Premises and properly dispose all trash and debris.

1.7.5 Utilities. Pending the extension and connection of permanent water, permanent gas, permanent sewer taps, and permanent electric power, the Contractor shall obtain temporary water, temporary gas, temporary electric power, and provide sewage disposal at his own expense. In the absence of provisions to the contrary, the Contractor shall pay for all utilities services until Material Completion has been achieved.

- 1.7.6 Royalties and Patents.** The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from loss on account thereof. The Owner shall defend and be responsible for all such loss when a particular process or the product of a particular manufacturer or manufacturers is specified.
- 1.7.7 Separate Contracts.** The Owner reserves the right at any time and from time to time upon notice to Contractor to perform, or cause to be performed by other Contractors, other work at the Site in connection with the development of the Project that is not contemplated hereby or that is contemplated hereby if the Contractor and the Owner shall be unable to agree upon a Change Order incorporating such work as Work of the Contractor under this Contract. In either case, the Owner shall assure that such personnel or Contractors do not cause any conflict with the Work of Contractor. Contractor shall afford the Owner and other Contractors reasonable opportunity for the introduction, protection, and storage of material and equipment at the Site and the execution of work, and shall properly connect, if required by Contract Documents, and coordinate its work with theirs. If any work by the Owner or its other Contractors increases Contractor's costs or extends the time of performance, Contractor shall be entitled upon timely claim to a Change Order for payment by Owner of any reasonable costs actually incurred by Contractor as a result thereof and to an extension of time for performance for such reasonable time as the Design Professional shall determine. Contractor has no responsibility hereunder to certify the suitability or correctness of any work performed by Owner's own personnel or other Contractors under direct contract with the Owner. This Article also applies to installation of loose equipment and fixtures by the Owner, or a Separate Contractor.
- 1.7.8 Minority, Women, and Disadvantaged Business Participation.** Pursuant to Board Policy FG, Contractor shall make and document good faith efforts to maximize the utilization of qualified local, minority, and women business enterprises ("LMWBEs") as subcontractors, suppliers, and subconsultants in connection with the performance of this contract. Examples of ways that Contractor can maximize the utilization of LMWBEs are outlined in Board Policy FG. Throughout the performance of this Contract, the Board may, from time to time, require Contractor to report on its effort to maximize LMWBE involvement in the Project.
- 1.7.9 Assignment.** The Contractor shall not assign the Contract or sublet it as a whole nor shall the Contractor assign any moneys due or to become due to him hereunder. Contractors may subcontract portions of the Work, normally performed by Subcontractors.
- 1.7.10 Interpretation of Contract Documents.** The Contract Documents shall be construed neither against nor in favor of either party, but shall be construed in a neutral manner.
- 1.7.11 Severability.** If any provision of this Agreement is held invalid, illegal, or unenforceable in a jurisdiction, such provision shall be modified or deleted as to that jurisdiction, but only to the extent necessary to render the same valid, legal and enforceable. The validity, legality, and enforceability of the remaining provisions hereof shall not in any way be affected or impaired thereby, nor shall the validity, legality or enforceability of such provision be affected thereby in any other jurisdiction.
- 1.7.12 Counterparts.** This Contract may be executed in multiple counterparts. All counterparts shall constitute one and the same instrument. One (1) counterpart of this Contract shall be delivered to the Owner and one (1) counterpart to the Contractor.
- 1.7.13 Forms and Specimens.** The forms and specimens In Section 7 are incorporated by reference herein and shall be executed in substantial conformance as required or convenient in describing obligations under the Contract Documents.
- 1.7.14 Entire Agreement.** The Contract Documents referenced herein constitute the entire Contract between the Owner and the Contractor with respect to the Project and supersedes all prior negotiations, representations, and agreements. Except as set forth herein, there are no other promises, understandings, agreements, representations or warranties, oral or written, expressed or implied between the parties. This Contract may not be changed, modified, or terminated, in whole or in part, nor any provision waived except by properly executed and approved Change Order.

SECTION 2 – PRE-COMMENCEMENT PHASE

PART 1 – PRE-COMMENCEMENT PHASE SERVICES

2.1.1 Pre-commencement Coordination. As early as practicable and reasonably in advance of the commencement of Work on the Project, the Contractor shall schedule and conduct an initial construction coordination meeting for the purpose of determining and developing the appropriate and necessary processes and procedures for proper planning and coordination for the installation of all the Work. The meeting shall include all of the Subcontractors, and Suppliers materially involved in such installation of the Work. The Contractor shall assure that each necessary Subcontractor involved in performance of the Work shall be present and represented by a knowledgeable person with authority to reach agreement on the coordination procedures and processes involving its portion of the Work. The Owner shall be represented at this initial meeting by the Owner's Representative, and shall require that authorized and knowledgeable representatives of each of the separate disciplines in the design team, comprising the Design Professional and all Consultants contributing to the design preparation, shall also be present at the initial meeting. If necessary, additional meetings shall be scheduled by the Contractor with all of the affected parties to continue review and resolution of any real or apparent conflicts or interferences.

2.1.2 Construction Preparation Period.

2.1.2.1 Requirement for Project Planning. No physical work will begin on the construction site until the receipt of a Proceed Order issued by the Owner. The Contract assumes that a Proceed Order will be issued in not more than sixty days from the Effective Date of the Contract. Failure of the Contractor to provide the necessary documentation for the issuance of a Proceed Order shall not entitle the Contractor to any extension of time. If a Proceed Order is not issued within sixty days from the award of the Contract and non-issuance is due to nonperformance by the Contractor, the Contractor may be in default.

2.1.2.2 Timing of Submission of Documents. No Proceed Order shall be issued until the Owner has received, in good and proper order, the following documents. The documents shall be submitted in accordance with the following schedule:

2.1.2.2.1 Within ten days of the Notice of Apparent Successful Bid:

- (a) Contract executed by Contractor
- (b) Payment and Performance Bonds in accordance with Article 1.5.1

2.1.2.2.2 Within fourteen days of the Effective Date of the Contract:

- (a) Proof of Insurance as required in Paragraph 1.5.3.1
- (b) List of intended Subcontractors

2.1.2.2.3 Prior to the issuance of the Proceed Order, but in any event, within sixty days of the Effective Date of the Contract:

- (a) Submittal and Shop Drawing Schedule as required in Article 2.2.3
- (b) Construction Progress Schedule as required in Article 2.1.5
- (c) Documents Review Report as required in paragraph 2.1.2.3
- (d) Construction Management Plan as required in Article 2.1.3
- (e) Documentation necessary for receiving land disturbance permits, See Article 2.2.5
- (f) Contractor's Quality Control Program as required in Article 2.1.4
- (g) Written Safety Program as required in Article 1.4.7
- (h) Contractor's Schedule of Rental Rates and Wage Rates
- (i) Contractor's establishment with the Owner of Unit Prices not already bid as required in Article 2.1.8

2.1.2.3 Document Review and Verification. Within one business day of receipt of the Effective Date of the Contract, Contractor shall commence a review of the plans and Specifications, to identify conflicts, omissions, or constructability issues in the documents. Contractor shall prepare a report containing a list of issues and suggested modifications identified. He shall provide a copy of the report to the Design Professional and the Owner prior to the end of the Construction Preparation Period.

2.1.3 Construction Management Plan. Contractor shall prepare and furnish to the Owner a thorough and complete plan for the management of the Project from issuance of the Proceed Order through the issuance of the Design Professional's Certificate of Material Completion. Such plan shall include, without limitation, an estimate of the manpower requirements for each trade and the anticipated availability of such manpower, a schedule prepared using the critical path method that will amplify and support the schedule required in Article 2.1.5 below, and the Submittal Schedule as required in Article 2.2.3. The Contractor shall include in his plan the names and resumés of the Project Superintendent, Project Manager and the person in charge of Safety.

2.1.3.1 Security Program. Contractor will develop and implement an effective security program for the Project Site, which program shall require the Contractor and subcontractors to take measures for the protection of their tools, materials, equipment, and structures. As between Contractor and Owner, Contractor shall be solely responsible for security against theft of and damage of all tools and equipment of every kind and nature and used in connection with the Work, regardless of by whom owned.

2.1.3.2 Safety Program. The Contractor shall design a specific safety program for the Work for the site(s). The Contractor shall establish and require all Subcontractors to establish reasonable safety programs. The Contractor shall also submit its standard monthly safety reports to the Owner and Design Professional. No imposition of responsibility on the Contractor for safety under this Contract shall relieve any subcontractor of its responsibility for safety of persons or property on or near the Project Site. The Contractor shall include in his plan the names of the person in charge of Safety.

2.1.3.3 Certificate of Competency – Fire Protection Trade Contractor. If a fire protection sprinkler system is required, the Contractor shall submit to the Owner, Design Professional and Program Manager, if applicable, the certificate of competency of the fire protection sprinkler system Trade Contractor as required by the State of Georgia Fire Protection and Safety Code. The certificate of competency shall be provided prior to any work being performed on the fire protection sprinkler system.

2.1.4 Quality Control Program.

2.1.4.1 Responsibility for Quality of Materials and Installation. Contractor acknowledges that he has full, total, and complete responsibility for providing materials, labor, and all other items necessary for providing the level of quality specified in the Contract Documents. He agrees that this responsibility is indivisible, non-delegable, non-transferable, and not diminished by any inspections provided by the Design Professional or his consulting engineers, nor by any inspections provided by the Owner. In recognition of this, Contractor will prepare for submission and review by the Design Professional, a written program describing the efforts that will be taken to insure the proper quality level is achieved. The program shall be submitted prior to the issuance of a Proceed Order.

2.1.4.2 Written Program. Contractor's written Quality Control Program shall describe in detail the steps the Contractor will take to ensure quality and will include, without limitation, those personnel, in addition to the Superintendent, who will provide review and verification of the proper installation of the Work. Each Subcontractor having responsibility for more than \$50,000 of the contract cost shall be addressed in the plan. The written program shall include affidavits from each of the involved Subcontractors acknowledging their responsibilities under the Contract in general and the Quality Control Program specifically.

2.1.5 Construction Progress Schedule; Overall Project Schedule. The Contractor shall submit for review by the Design Professional and approval by the Owner a Construction Progress Schedule prepared using a CPM (Critical Path Method) Diagram within thirty (30) days after the Effective Date of the Contract, in a form satisfactory to the Design Professional and Owner, showing the dates for commencement and completion of the Work required by the Contract Documents, including coordination of mechanical, plumbing, and electrical disciplines, as well as coordination of the various subdivisions of the Work within

the Contract. Milestones must be clearly indicated and sequentially organized to identify the critical path of the Project. The Construction Schedule will be developed to represent the CSI specification divisions. It shall have the minimum number of activities required to adequately represent to the Owner the complete scope of Work and define the Project's (and each Phase's if phased) critical path and associated activities. The format of the Construction Progress Schedule will have dependencies indicated on a monthly grid identifying milestone dates such as construction start, phase construction, structural top out and submittal, approval, and procurement dates of critical work, dry-in, rough-in completion, metal stud and drywall completion, equipment installation, systems operational, inspections for Material Completion and Occupancy Date, and Final Completion Date. The Contractor shall submit, along with the Construction Progress Schedule, the Submittal Schedule for approval by the Design Professional, correlating the associated approval dates for the documents with the Construction Progress Schedule. Upon recommendation by the Design Professional and approval by the Owner, the Construction Progress Schedule shall become the Overall Project Schedule, which shall be utilized by the Design Professional, Owner and Contractor. The Contractor must provide the Design Professional and the Owner with monthly updates of the Overall Project Schedule indicating completed activities and any changes in sequencing or activity durations, including approved change orders. The Construction Progress Schedule will include an anticipated Notice to Proceed date and shall be updated based upon the Actual Notice to Proceed within 10 days of receipt of the Proceed Order.

2.1.6 Progress Reports and Information. When required, the Contractor shall submit to the Owner such schedule of quantities and costs, payrolls, bills, vouchers, correct copies of all subcontracts, statements, reports, correct copies of all agreements, correspondence, and written transactions with the surety on the performance bond that have any relevance to the Work, estimates, records, and other data as the Owner may request that concerns the Work performed or to be performed under this Contract. When requested by the Owner, the Contractor shall give the Owner access to its records relating to the foregoing. (*See also* Article 1.2.3, Audits.) The above reports shall include, but are not limited to, (a) written notice of dates by which specified Work will have been completed, (b) written notice of dates by which Non-Compliant Work will be made good, (c) written notice that Non-Compliant Work has been made good, (d) written notice as to the date or dates by which Work that has not been performed with equal steps and at the same rate required by the Overall Project Schedule shall have been brought into conformity with the Overall Project Schedule, (e) date by which any undisputed claim of a Subcontractor, Supplier, or laborer shall have been paid, (f) written advice regarding the nature and amount of any disputed claim of a Subcontractor, Supplier, or laborer, and (g) information regarding Work performed under Change Orders.

2.1.7 Rental Rates and Wage Rates for Change Orders. As soon as is practical, but prior to the completion of the Construction Preparation Period and in any event prior to the commencement of any Work on the Site, the Contractor shall submit in accordance with the style and format of a specimen acceptable to the Owner for consideration of the Owner the following: (1) a proposal for rental rates on heavy construction equipment that shall apply in the event Change Order Work is performed, and (2) a proposal for wage rates for the types of project labor that shall apply in the event of the execution of any Change Order Work. Under penalty of false swearing, a principal of the contracting firm shall certify that the proposal for rental rates and proposal for wage rates do not exceed current costs for like services. The Owner will in no event consider a rental rate in excess of eighty percent of the rate set forth in the latest edition of the "Compilation of Nationally Averaged Rental Rates for Construction Equipment" of the Associated Equipment Distributors unless the rates proposed in excess of eighty percent are supported by proof satisfactory to the Owner that the excess rates are reasonable. If the equipment is owned by the Contractor the costs shall be charged at a maximum of eighty percent of market monthly rental rates for the amount of time used. If applicable, transportation costs may be included. The decision of the Owner shall be final, binding and conclusive on all parties. Rental rates shall be payable only for the actual time the equipment is required on the Site.

2.1.8 Unit Prices.

2.1.8.1 During Construction Preparation Period. Prior to the issuance of a Proceed Order, the Contractor shall establish with the Owner Unit Prices not already bid. Examples include additional installation of storm water management BMPs, any other anticipated Change Order Work that can utilize Unit Prices, or for any items of Work considered necessary by the Design Professional and not established in the Contract Documents.

2.1.8.2 During Construction. Upon request of the Owner the Contractor shall submit written proposals for unit prices to be applied in the event Change Order Work is authorized by the Owner to be performed under Case (b).

2.1.8.3 Calculation of Unit Prices. Unit Prices include all sums for payment, repayment, reimbursement, remittance, remuneration, compensation, profit, cost, overhead, expense, loss, expenditure, allowance, charge, demand, hire, wages, salary, tax, cash, assessment, price, money, bill, statement, dues, recovery, restitution, benefit, recoupment, exaction, or injury. Unit prices to cover the addition or reinstallation of stormwater management BMPs shall be calculated by type and linear foot. Unit Prices *shall not* include any delay costs; as such costs may be added pursuant to Section 3, Part 3. The Contractor shall certify that the Unit Prices submitted do not exceed current costs in the industry or trade for like services or materials.

PART 2 – CONTRACT DOCUMENTS AND SITE PLAN

2.2.1 Contract Documents.

2.2.1.1 Familiarity with Contract Documents. The execution of the Contract constitutes a representation by the Contractor that it has reviewed, carefully examined, studied, and analyzed the Contract Documents.

2.2.1.2 Identification of Construction Documents. The Design Professional shall identify the Construction Documents, which shall include, but are not limited to, the Specifications, the Drawings, and all Addenda. The Construction Documents are included within the Contract Documents.

2.2.1.3 Correlation and Intent. It is the intention of the Owner, Design Professional, and Contractor that the Construction Documents include all items necessary for proper execution and full and final completion of the Work. The Contract and Construction Documents (the Contract Documents) are complementary, and what is required by one is as binding as if required by all. Performance by the Contractor is required to the extent consistent with and reasonably inferable from the Contract Documents as being necessary to produce the design intent as expressed in the Contract Documents. The intention of the Owner and the Design Professional is that the Contract and Construction Documents include all labor and materials, equipment, and transportation necessary for the proper execution of the work. It is not intended, however, that materials or work not covered by or properly inferable from any heading, branch, class, or trade of the specifications shall be supplied unless noted on the drawings.

2.2.1.4 Arrangement of Specifications. The Specifications are separated into numbered and titled divisions for convenience of reference. Neither the Owner nor the Design Professional shall assume any responsibility for defining the limits of any subcontracts on account of the arrangement of the Specifications. Notwithstanding the appearance of such language in the various divisions of the Specifications as, "The Plumbing Contractor," "The Electrical Contractor," "The Roofing Contractor," etc., the Contractor is responsible to the Owner for the entire Contract and the execution of all of the Work referred to in the Contract Documents. No partial sets of Bidding Documents shall be issued by the Design Professional. Any partial documents issued by the Contractor shall be the responsibility of the Contractor.

2.2.1.5 Conflicts. The following general principles shall govern the settlement of disputes that may arise over conflicts in the Contract Documents: (a) as between figures given on drawings and the scaled measurements, the figures shall govern; (b) as between large-scale drawings and small-scale drawings, the larger scale shall govern; (c) as between the Contract and the Specifications, the requirements of the Contract, as executed, shall govern. Conflicts noted shall be reported to the Design Professional. The principles set forth herein shall not alter the provisions of Paragraph 1.1.7.1. Schedules, lists, indexes, tables, inventories, written instructions, written descriptions, summaries, statements, classifications, Specifications, written selections, or written designations, although appearing on the drawings, are deemed to be and are Specifications; (d) as between specifications and drawings, the requirements of the specifications shall govern.

2.2.1.6 Requests for Information (RFI). In the event the Contract Documents are not complete, definite, and clear, the Contractor shall request the Design Professional in writing for additional instructions and shall furnish the Owner a copy of the RFI. With reasonable promptness but not more than five days thereafter, the Design Professional shall furnish complete, definite, and clear instructions in writing, or by means of drawings, or both. In the event such additional instructions are given orally for expediency, they shall be confirmed in writing or by drawings or both within five days following the oral instructions. Any such additional instructions shall be consistent with the Contract Documents and reasonably inferable therefrom. The Work shall be executed in conformity with the aforesaid instructions. The Design Professional shall furnish the Owner a copy of all additional instructions issued to the Contractor. If, because of events beyond its reasonable control, the Design Professional is not able to meet the specified time period, then it is entitled to ask for additional time from the Owner.

2.2.1.7 Effect of Addenda, Bulletins, and Change Orders. No special implication, interpretation, construction, connotation, denotation, import, or meaning shall be assigned to any provision of the Contract Documents because of changes created by the issuance of any (1) Addendum, (2) Bulletin, or (3) Change Order other than the precise meaning that the Contract Documents would have had if the provision thus created had read originally as it reads subsequent to the (1) Addendum, (2) Bulletin, or (3) Change Order by which it was created.

2.2.1.8 Intellectual Property Rights in Construction Documents, Drawings, and Models. The drawings, Specifications and other documents prepared by the Design Professional pursuant to this Contract (including, without limitation, the Construction Documents), are the property of the Owner, whether or not the Project for which they are made commences or completes construction. Neither the Contractor nor any Subcontractor or material or equipment supplier shall own or claim a copyright in such drawings, Specifications, and other similar or related documents; Owner shall retain all common law, statutory, and other intellectual property rights with respect thereto. The Contractor must deliver remaining copies of such documents to the Owner upon request or upon completion of the Work, except that the Contractor may keep one copy of such documents for its files. The Contractor shall only use such drawings, Specifications and other documents for this Project. Neither the Contractor nor any Subcontractor or material or equipment supplier may use such drawings, Specifications, and other documents on other projects without the specific written consent of the Owner. All models are the property of the Owner.

2.2.2 Documents at the Project Site.

2.2.2.1 Drawings and Specifications at the Project Site. The Contractor shall keep at the Site at least one copy of the Contract Documents and Change Orders, all in good order and available to the Design Professional and to his representatives.

2.2.2.2 Recording Changes. The Contractor shall record all changes and shall annotate a copy of the drawings to reflect the as-built condition as required in Paragraph 1.1.7.3 above.

2.2.3 Submittals. Submittals required by the Contract Documents shall be prepared specifically for the Work by the Contractor to illustrate some portion of the Work. Submittals are not Contract Documents.

2.2.3.1 Submittal Schedule. Within sixty days after receipt of the Effective Date of the Contract, the Contractor shall prepare and submit a Submittal Schedule for review and approval of the Design Professional. In establishing the Submittal Schedule the Contractor shall take into account large submittal documents that will require longer review times, e.g., submittals with over fifty sheets of drawings. The Design Professional's approval shall be based on conformance of the Submittal Schedule with the Overall Project Schedule, subject to change from time to time in accordance with the progress of the Work.

2.2.3.2 Submission and Approval. The Contractor's Submittals must comply with the Contract Documents. The Contractor shall review and approve all Submittals prior to submission. The Contract Documents shall specify when shop drawings or submittals require the seal of a specialty consultant. The Contractor shall submit copies of Submittals as required by the Contract Documents for the Work of the various trades. The Design Professional shall review, approve, or take other appropriate action with respect to shop drawings, samples, or other submissions of the Contractor, including, but not limited to, confirming conformance with the design concept of the Project and with the Contract Documents. The Design Professional shall respond to and return said items to the Contractor within fourteen calendar days from receipt provided that the Submittals are submitted by the Contractor in accordance with the required Submittal schedule. The Design Professional shall review and give comment or approval to Submittal schedule within fourteen calendar days from receipt. Large submittal documents may require longer review times, e.g., submittals with over fifty sheets of drawings. If, because of events beyond its reasonable control, the Design Professional is not able to meet the specified time period, then it is entitled to ask for additional time from the Owner. The Contractor shall make all corrections required by the Design Professional and furnish such corrected copies as may be needed. If the Contractor believes that any corrections required by the Design Professional constitute a change to the contract, the Contractor shall immediately notify the Design Professional and Owner and request instructions. By forwarding the approved Submittals to the Design Professional, the Contractor represents that the Contractor has determined and verified materials, field measurements, and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such Submittals with the requirements of the Work and of the Contract Documents. The Design Professional's approval of Submittals shall not relieve the Contractor from the

responsibility for errors of any sort in Submittals or schedules. The Contractor shall perform no portion of the Work for which the Contract Documents require Submittals until the Design Professional has approved the respective Submittal. The Contractor shall maintain at the Site one copy of all approved Submittals.

2.2.3.3 Cost of Additional Review. The Design Professional shall be responsible for an initial and one subsequent review of the Submittal. Where the subsequent Submittal is not accepted due to noncompliance with the Contract Documents, the Contractor shall be responsible for payment for the additional time required by the Design Professional to complete the Submittal review.

2.2.4 Manufacturer's Recommendations. All work or materials shall be installed in accordance with the manufacturer's recommendations and requirements. The Contractor shall obtain the manufacturer's recommendations and requirements, for its use at the Site in executing the Work, copies of bulletins, circulars, catalogues, or other publications bearing the manufacturer's titles, numbers, editions, dates, etc. If the manufacturer's recommendations and requirements are not available, the Contractor shall request installation instructions from the Design Professional.

2.2.5 Site Plan.

2.2.5.1 General. The Design Professional is responsible for providing the initial sealed Site Plan as a part of the Bidding Documents. During the Pre-Commencement phase, the Contractor shall review the initial Site Plan and make and submit recommendations for any changes to the initial Site Plan. The Contractor is required to obtain the land disturbance permit(s) applicable to the Owner that implement the National Pollution Discharge Elimination System (NPDES) requirements for stormwater management for construction activities from the appropriate issuing authority. Compliance requires that there be properly designed Best Management Practices (BMPs), properly installed BMPs, and inspection and maintenance of the installed BMPs.

2.2.5.2 Implementation. The Design Professional will depict upon the Site Plan its initial recommendations as to elements of the erosion, sedimentation, and pollution control plan, specifying his recommended design of BMPs for the Project, including stormwater management facilities, and other like matters. It is the Contractor's responsibility to review the design of the BMPs and submit any changes to the plan, including the Contractor's desired use of entrances to the Site, Contractor's trailer(s) location, laydown areas and other similar matters affecting the design and implementation of the BMPs. The Design Professional and Contractor shall arrive at a final sealed Site Plan for submission to the permitting officials that enables the land disturbance permitting of the Project. The Design Professional and Contractor shall resolve with the local permitting official any deficiencies by the end of the Pre-commencement period.

2.2.5.3 Installation, Inspection, and Maintenance. The Contractor is responsible for installation and maintenance of the BMPs as a part of its Bid. The Design Professional shall obtain the services of a qualified testing laboratory to inspect the BMPs in accordance with the permits, the costs of such inspections to be borne by the Owner. In the event Abnormal Weather Conditions or *force majeure damage the BMPs*, the Contractor shall be compensated for repair or re-installation of BMPs at established Unit Prices, where such repair or reinstallation is not covered by insurance supplied by the Contractor.

2.2.6 Geological and Archeological Specimens. If, during the execution of the Work, the Contractor, any Subcontractor, or any servant, employee, or agent of either should uncover any valuable material or materials, such as, but not limited to, treasure trove, geological specimens, archival material, archeological specimens, or ore, the Contractor acknowledges that title to the foregoing is vested in the Owner. The Contractor shall notify the Owner upon the discovery of any of the foregoing, shall take reasonable steps to safeguard it, and seek further instruction from the Design Professional. Any additional cost incurred by the Contractor shall be addressed under the provision for changed conditions. The Contractor agrees that the Geological and Water Resources Division and the Historic Preservation Division of the Georgia Department of Natural Resources may inspect the Work at reasonable times.

SECTION 3 – CONSTRUCTION PHASE

PART 1 – CONSTRUCTION PHASE SERVICES

3.1.1 Basic Construction Services.

3.1.1.1 Requirement to Commence Work. Time being of the essence of this Contract, and a material consideration thereof, it is mutually agreed by the parties hereto in case of the Contractor's failure to complete the construction within the time specified, the Owner will be damaged thereby. The Contractor shall commence performance of its activities on the Site within five days of the date specified in the Proceed Order. The Contractor shall complete construction, except for Minor Items and Permitted Incomplete Work (Scheduled Warranty Items) (see Article 6.1.1), not later than the Material Completion and Occupancy Date, as adjusted by Change Order.

3.1.1.2 Payment for Services and Work. Unless otherwise stipulated, the Contractor shall provide and pay for all materials, supplies, labor, services, water, tools, equipment, light, power, transportation, and other utilities and facilities necessary for the proper execution and completion of the Work.

3.1.1.2.1 No Obligation of Owner. Contractor shall not enter into, execute, or deliver any agreement, document, or undertaking, or incur any obligation with any Trade Contractor, Supplier or Subcontractor in the name of the Owner.

3.1.1.2.2 No Conditional Sales Agreements. Contractor shall not make, cause to be made, or permit, any contract for materials or equipment of any kind or nature whatsoever to be used in connection with the Work on a conditional sales or any other basis whereby the title to the equipment or materials does not pass to the Owner upon delivery to the Site or incorporation in the Project, free and clear of any lien, financing arrangement, or other impediment to title.

3.1.1.3 Quality of Materials and Workmanship. Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials and work. The burden of proof is on the Contractor.

3.1.1.4 Quality and Discipline of Employees. 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 work assigned to him.

3.1.1.5 Failure of the Contractor to Supply Workmen. A Notice of Non-Compliant Work may be issued for failure of the Contractor to supply enough workers or enough materials or proper materials.

3.1.1.6 Superintendence and Supervision by Contractor.

3.1.1.6.1 Supervision by Contractor. The Contractor shall give efficient supervision to the work, using his best skill and attention. He shall carefully study and compare all drawings, specifications, and instructions and shall at once report to the Design Professional any error, inconsistency, or omission that he may discover, but he shall not be held responsible for their existence or discovery.

3.1.1.6.2 Superintendent of Contractor. The Contractor shall keep on this work during its progress and until the Final Certificate has been executed by the Design Professional a competent Project Superintendent and any necessary assistants, all satisfactory to the Design Professional and Owner. The Project Superintendent shall not be changed except with the consent of the Owner and the Design Professional unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ. The superintendent represents the Contractor and all directions given to the superintendent shall be as binding as if given to the Contractor.

3.1.1.6.3 Replacement Project Superintendent. If the Contractor terminates the Project Superintendent or, if the Contractor, for any reason, engages a Project Superintendent different

from the one originally assigned to the Project, Contractor must ensure that the replacement Project Superintendent has similar qualifications and experience as the originally identified Project Superintendent. Furthermore, the Contractor must obtain the Owner's prior written approval before engaging a permanent replacement Project Superintendent.

3.1.1.6.4 Competent Staff. The Contractor shall maintain at the Site a competent staff with appropriate expertise to coordinate and provide general direction of the Work in order to (i) Conduct adequate control of the Work as to quality and compliance with the Contract Documents, and (ii) Maintain satisfactory progress by any Subcontractors involved in the performance of the Work.

3.1.1.6.5 Coordination. Establish with the Design Professional procedures for coordination among the Owner, the Design Professional, and the Contractor. Establish similar procedures for coordination between Contractor and its Subcontractors and Suppliers with respect to all aspects of the Project, and implement such procedures.

3.1.1.6.6 Qualified Workforce and Sufficient Staff. Contractor shall require all Trade Contractors, Subcontractors, and Suppliers to employ only skilled workmen properly qualified by experience and ability to perform the task assigned to them. In addition, Trade Contractors and Subcontractors shall employ and assign to the Work, at all times, sufficient staff and personnel to perform their subcontracted services in a skilled, professional, and satisfactory manner so as not to delay the progress of the Work. The Contractor shall immediately replace or cause to be replaced all Workmen.

- 3.1.2 Measurements and Dimensions.** Before ordering material or doing work that is dependent upon coordination with building conditions, the Contractor shall verify all dimensions, elevations, grades, and pitch by taking measurements at the building and shall be responsible for the correctness of same. Any discrepancies between the drawings and/or specifications and the existing conditions shall be referred to the Design Professional for additional instructions before any work affected thereby is begun.
- 3.1.3 Rain Water, Surface Water, and Back-up.** The Contractor shall protect all Work, including but not limited to, excavations and trenches, from rainwater, surface water, and back up of drains and sewers. The Contractor shall furnish all labor, pumps, shoring, enclosures, and equipment necessary to protect and to keep the Work free of water.
- 3.1.4 Dust Control.** Dust-proof enclosures or partitions for protection wherever dusty or dirty work is performed and dampening of debris to avoid dusting when removed shall be provided and included as a cost of the work.
- 3.1.5 Cutting, Patching, and Fitting.** The Contractor shall do all cutting, patching, and fitting of the Work that may be required to make its several parts come together properly and fit.
- 3.1.6 Space Conditions.** All pipes passing through floors, walls, and ceilings shall be installed with sufficient space between them to permit installation of pipe insulation and floor, wall, and ceiling plates without cutting of insulation or plates. Roughing dimensions shall be prepared by the Contractor to accomplish this requirement. The Contractor shall locate all equipment that must be serviced, operated, or maintained in fully accessible positions. This provision includes but is not limited to valves, traps, cleanouts, motors, controllers, switchgear, drain points, filter, access doors, and fire dampers. If spaces, dimensions, or other design conditions do not permit compliance with the present article, the Contractor shall file a request in writing with the Design Professional for additional instructions, furnishing a copy to the Owner.
- 3.1.7 Cleaning Up.** The Contractor shall keep the premises free at all times from accumulations of waste material or rubbish caused by his employees or work. Periodically during the course of the Work and at the completion of the work he shall remove all his rubbish from and about the building and all his tools, scaffolding, and surplus materials and shall leave his work "broom-clean" or its equivalent, unless more exactly specified. In case of dispute, after 48 hours written notice the Owner may remove the rubbish and charge the cost to the Contractor.

- 3.1.8 Duty of Contractor to Report Defects.** If any part of the Contractor's work depends for proper execution or results upon the work of any Separate Contractor to the Owner, the Contractor shall inspect and promptly report to the Design Professional any apparent defects in such work that render it unsuitable for such proper execution and results.
- 3.1.9 Duty of Contractor to Report Conflicts.** To ensure the proper execution of his subsequent work, the Contractor shall measure work already in place and shall at once report to the Design Professional any discrepancy between the executed Work and the drawings or specifications.
- 3.1.10 Notice of Commencement.** The Contractor shall, in accordance with Georgia law, record and post a Notice of Commencement for the construction portion of the Work, and shall promptly deliver a stamped-recorded copy of such Notice of Commencement to the Owner, the Design Professional, and the Program Manager, if applicable.

PART 2 – CHANGES TO THE WORK

- 3.2.1 Acknowledgement of Existing Physical Conditions.** In undertaking the work under this Contract, the Contractor acknowledges that he has visited the premises and has taken into consideration all open and apparent conditions that might affect his work. No claim based on lack of knowledge of existing conditions shall be allowed unless the existing physical conditions cannot be discovered by a reasonably observant person. Any claims relating to conditions that are materially different from the Contract Documents that were not open and apparent may be adjusted as provided in this Part.
- 3.2.2 Owner's Right to Make Changes.** Without invalidating the Contract, the Owner, by Change Order and without notice to the sureties, may authorize or order extra work or changes by altering, adding to, or deducting from the Work or the Contract Time, the Contract Sum being adjusted accordingly. All Change Orders shall be performed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted, if required, at the time of signing of the Change Order. (See Change Order formats in Section 7.) Should any designee authorized to accept and approve changes to the Contract Sum or limits of any designee's authority change during the time this Contract is in effect, the Contractor or Owner shall give written notice to the other as provided in Article 1.1.5. There is no legal limitation on the Owner's right to make changes such as may be, in the Owner's sole discretion, useful or desirable to the Project.
- 3.2.3 Changes Forbidden without Consent of Owner.** Neither the Design Professional nor the Contractor shall make any change whatsoever in the work without an approved Change Order. In the absence of an approved Change Order, the Contractor shall have no claim for payment, repayment, reimbursement, remittance, remuneration, compensation, profit, cost, overhead, expense, loss, expenditure, allowance, charge, demand, hire, wages, salary, tax, cash, assessment, price, money, bill, statement, dues, recovery, restitution, benefit, recoupment, exaction, injury, damages, or time based upon or resulting from any change. The provisions of this Article do not apply to emergencies as described in Article 1.4.4.
- 3.2.4 Form and Execution of Change Orders.**
- 3.2.4.1 The Change Order. The Change Order is the written instrument by which adjustments in the Contract Sum and the Contract Time are effected. The Change Order shall be accompanied by a breakdown as set forth in the Paragraph below. The breakdown is for the purpose of enabling the Design Professional and the Owner to make a judgment on the dollar amount of the adjustment in the Contract Sum and is not a part of the Change Order. No condition, term, qualification, limitation, exception, exemption, modification, or proviso, except as set forth in this Part, shall appear in the breakdown. Only such conditions, terms, qualifications, limitations, exceptions, exemptions, modifications, and provisos as are permitted under this Part are valid. The Design Professional shall certify to the dollar amount and description of the adjustments permitted by the Change Order.
- 3.2.4.2 Execution of Change Orders. Change Orders shall be signed by the Contractor, ordinarily certified by the Design Professional, and approved by the Owner in compliance with Board Policy FGG using the form of Change Order prescribed by the Owner. No request for payment by the Contractor for a Change Order shall be due, nor shall any such request appear on an Application for Payment, until the Change Order is executed and approved by the Owner.
- 3.2.4.3 Approval of Changes Orders by Owner. All Change Orders must be approved pursuant to Board Policy FGG. Under current policy FGG, all change orders must be reviewed by the project Architect/Engineer, appropriate District and Program Management staff as designated by the Superintendent before being recommended for further approval. The Superintendent is delegated authority to approve and sign Change Orders which will change the overall amount of a contract by \$50,000 or less, but cannot approve and sign Change Orders in excess of \$50,000. All Change Orders which will change the overall amount of a contract by more than \$50,000 must be documented as a Board Resolution. Upon approval by the Board, a Change Order may be signed by the Board President, the Superintendent, or the Chief Financial Officer. A summary of all approved Change Orders will be provided to the Board of Education quarterly as an information item.

3.2.4.4 Emergency Change Order Approval. Pursuant to Board Policy FGG, Any Emergency Change Order in excess of \$50,000 may be approved by the Superintendent or his/her designated alternate, the Chief Financial Officer or his/her designated alternate, and the Board President or Vice President, signed by all three approvers, and presented to the Board for ratification at the next available Board meeting.

3.2.4.5 Breakdown of Expenditures. The Contractor shall review any Owner requested or directed change and shall respond in writing within fourteen calendar days after receipt of the proposed change (or such other reasonable time as the Owner may direct), stating the effect of the proposed change upon his Work, including any increase or decrease in the Contract Time and Sum. The Contractor shall furnish to the Owner and the Design Professional an itemized breakdown of the quantities and prices and expenditures for labor and materials used in computing the proposed change in Contract Sum, in the form prescribed by the Owner, and the breakdown shall be accompanied by the following declaration:

I do solemnly swear to the best of my knowledge, information, and belief, that the costs shown hereinabove do not exceed current costs for like services or materials in the locality of the Project and, in the case of a Force Account, the costs represented do not exceed the actual costs to the Contractor; and that the quantities shown do not exceed actual requirements.

3.2.4.6 Back up for Expenditures. The Contractor shall obtain and furnish as back up to the Contractor's breakdown a separate breakdown for each Subcontractor's charges prepared by each Subcontractor on the letterhead of the Subcontractor and properly signed by the Subcontractor. The Owner shall review the Contractor's proposal and respond to the Contractor within fourteen days of receipt.

3.2.4.7 Deletion prior to Commencement. Where Work is deleted from the Contract (by Bulletin, Change Order, or otherwise) prior to commencement of that Work without substitution of other similar Work, one hundred percent of the Contract Sum attributable to that Work shall be deducted from the Contract Sum. However, in the event that material submittals have been approved and orders placed for said materials, a lesser amount as justified by proper documentation shall be deducted from the Contract Sum. The credit if any to the Owner for reduced premiums on payment bonds and performance bonds shall be in all cases one hundred percent of the credit.

3.2.4.8 Disagreement between Design Professional and Contractor.

3.2.4.8.1 As to Contract Sum. Should the Design Professional disagree with the Contractor as to the amount of the adjustment to the Contract Sum and such disagreement is not resolved between them within seven days, the Owner, if it desires the Change Order work to proceed, may direct a Change Order for Force Account or Indeterminate Units.

3.2.4.8.2 As to Contract Time. Should the Design Professional disagree with the Contractor as to the amount of the adjustment to the Contract Time and such disagreement not be resolved between them within seven days, the decision of the Design Professional as to any adjustment in the Contract Time, shall be final.

3.2.4.8.3 As to Other Disagreements. Should the Design Professional disagree with the Contractor as to matters other than Contract Sum or Contract Time, the dispute shall be resolved by the Owner as set forth in Section 5, Part 2.

3.2.4.9 Change Order Conditions. All Change Orders are issued under the following conditions and shall contain the following language as appropriate:

3.2.4.9.1 For Lump Sum Change Order: The payment and extension of time, if any, provided by this Change Order constitutes compensation in full to the Contractor and its Subcontractors,

Suppliers, and for all costs and markups, directly and indirectly attributable to the changes ordered herein, and for all delays or time related costs thereto and for any acceleration costs for performance of changes within the time stated and to be completed by the Material Completion and Occupancy Date and for any claims related thereto against the Owner and the Design Professional, and design consultants.

3.2.4.9.2 For Force Account or Indefinite Amount Change Order: The payment and extension of time, if any, provided by this Change Order constitutes interim compensation to the Contractor and its Subcontractors, Suppliers, and for all costs and markups, directly and indirectly attributable to the changes ordered herein, and for all delays or time related costs thereto and for any acceleration costs for performance of changes within the time stated and to be completed by the Material Completion and Occupancy Date and for any claims related thereto against the Owner and the Design Professional, and design consultants.

3.2.4.9.3 For All Change Orders: Any changes or reservations by the Contractor to the representations and releases in the Change Order, or refusal of the Contractor to execute the Change Order, shall be a material breach of this Contract that may be sufficient cause to issue a declaration of default.

3.2.5 All Cost and Time Impacts to be Included. Each Change Order shall include all time and monetary impacts of the change. Failure to include a change in Contract Time or in Contract Sum in Change Orders shall be considered a zero price/zero time Change Order and shall waive any change in Contract Time and Contract Sum. Commencement of Work upon a Change Order is conclusive proof that the Contractor accepts the Change Order.

3.2.6 Changes in Contract Time. All Change Orders must state that the Contract Time and the Material Completion and Occupancy Date either are not changed or are increased or decreased by a specific number of Days. The Contractor must provide written justification for the extension to the Design Professional and to the Owner. The written justification must demonstrate an anticipated actual increase in the time required to complete the Work beyond that allowed by the Contract as adjusted by prior Change Orders to the Contract. No extension to the Contract Time shall be allowed unless the additional or changed Work increases the length of the critical path beyond the Material Completion and Occupancy Date. If approved, the increase in time required to complete the Work shall be added to the Contract Time. The Owner may decrease, by Change Order, the Contract Time when an Owner-requested deletion from the Work results in a decrease in the actual time required to complete the Work as demonstrable on the CPM Schedule.

3.2.7 Determining the Cost to Owner for Changes. The cost to the Owner of any change shall be determined in one of the following three ways:

3.2.7.1 Lump Sum. The Change Order cost is determined by mutual agreement as a lump sum amount changing the Contract Sum allowed for completion of the Work. The Change Order shall be substantiated by documentation itemizing the estimated quantities and costs of all labor, materials and equipment required. The price change shall include the amount allowed for the Contractor's overhead and profit, as outlined in 3.2.8.

3.2.7.2 Unit Price Work. The Change Order cost is calculated by using unit prices and calculating the number of net units of Work in each part of the Work that is changed, either as the Work progresses or before Work on the change commences, and by then multiplying the calculated number of units by the applicable unit price set forth in the Contract or multiplying by a mutually agreed unit price if none was provided in the Contract. No additional percentage markup for overhead or profit shall be added to the unit prices as this markup is included within the unit prices.

3.2.7.3 Force Account. The Change Order cost is accomplished by Force Account in the event the Contractor and Design Professional cannot agree on the cost of the Change Order or the cost cannot be reasonably determined prior to beginning the Work.

3.2.7.3.1. A Force Account is the establishment by the Owner's Encumbrance Record of a maximum dollar amount (Stipulated Maximum Sum) beyond which no changed work may be undertaken, subject to amendment, for funding all costs of a Change Order. As the Work authorized by the Change Order progresses, the Contractor must provide an accounting of actual costs incurred in accomplishing the Work. The accounting must include an annotated copy of the Overall Project Schedule to accurately show the status of the Work at the time the Change Order utilizing a Force Account is issued, to show the start and finish of the changed Work, and to show the status of the Work when the changed Work is completed.

3.2.7.3.2 Actual costs, except as otherwise agreed to in writing by the Owner, shall not exceed those prevailing for the trades or crafts, materials, and equipment in the locality of the Project, shall include only those items listed as allowable in Article 3.2.9, and shall not include any of the costs listed as not allowable in Article 3.2.10. The Owner shall be permitted, on a daily basis, to verify such records and may require such additional records as are necessary to determine the cost of the change to the Work.

3.2.7.3.3 The Owner shall prescribe the dollar limit for a Force Account in writing by authorizing a Stipulated Maximum Sum of money to be committed toward execution of the said change, and the Contractor shall have no authority to perform any change that will cost the Owner in excess of the Stipulated Maximum Sum. The Stipulated Maximum Sum shall be based on the estimated cost of the Work and the Contractor's allowance for overhead and profit as set forth in 3.2.8 below, including any time extension, and a reasonable contingency. It shall be the sole responsibility of the Contractor to apply in writing to the Owner, NOT to the Design Professional, for an increase in the Stipulated Maximum Sum if the total value of the Work is approaching and might exceed the Stipulated Maximum Sum.

3.2.7.3.4 Within fourteen days of the conclusion of such Work ordered by Force Account, the Contractor and the Owner shall arrive at the total lump sum cost for the Change Order. Such lump sum cost shall be incorporated into and finalize the Change Order as a lump sum, and shall reference and close the Encumbrance Record establishing the Force Account.

3.2.8 Overhead and Profit

3.2.8.1 Overhead and Profit. The percentage for overhead and profit to be used in calculating additive changes in the Work (not including changes covered by unit prices) shall not exceed the percentages for each category listed below. Said percentages for overhead and profit shall be applied only on the net cost of the changed Work, (i.e., the difference in cost between original and revised Work).

3.2.8.1.1 Contractor. If the Contractor does all or part of the changed Work with employees that work directly for the Contractor, its markup for overhead and profit on the changed Work the Contractor performs with its employees shall not exceed twenty-percent of the net Allowable Costs, if any.

3.2.8.1.2 Subcontractor. If a Subcontractor does all or part of the changed Work with employees that work directly for the Subcontractor, the Subcontractor's markup for overhead and profit on the Work the Subcontractor performs with its employees shall not exceed twenty-percent of the net Allowable Costs.

3.2.8.1.3 Contractor's Markup on Subcontractor' Work. The Contractor's management markup on the Subcontractor's net additional allowable expenditures shall not exceed seven and one half percent.

3.2.8.1.4 Second and Lower Tier Subcontractor. If a Subcontractor at any tier does all or part of the changed Work with its own employees, the Subcontractor's markup on the Subcontractor's work with its own employees shall not exceed twenty- percent of the net allowable cost, if any. The management markup of a Subcontractor's work by the Contractor and all intervening tiers of Subcontractors shall not exceed seven and one half percent for the Contractor and an additional seven and one half-percent for a Subcontractor, or a total not to exceed fifteen percent for the changes to the Work.

3.2.8.2 The above percentages shall be applied to the net Allowable Costs, if any, as limited and defined in this Part. If the net difference between Allowable Costs and credits to the Owner results in a decrease in the Owner's cost, the amount of credit allowed the Owner shall be the net decrease without any allowance for overhead and profit. All costs that are not specifically allowed in article 3.2.9 or disallowed in Article 3.2.10 shall be considered as overhead and shall be exclusively compensated in the allowances provided for in paragraph 3.2.8.1 above.

3.2.9 Allowable Costs for Changes in the Work. Allowable cost for changes to the Work are limited to the following:

3.2.9.1 Labor costs for employees directly employed in the change in the Work, including salaries and wages plus the cost of payroll charges and fringe benefits and overtime premiums, if such premiums are explicitly authorized by the Owner, set at rates established in the manner set forth in Article 2.1.7.

3.2.9.2 Materials incorporated into the change to the Work, including costs of transportation, handling, fuel, and on-site storage, if applicable.

3.2.9.3 Equipment incorporated in the changed Work or equipment used directly in accomplishing the Work. If the equipment is rented expressly for accomplishing the change in the Work, that cost shall be the rental rate according to the terms of the rental agreement, which the Owner shall have the right to approve, or shall be set at rates established in the manner set forth in Article 2.1.7. The decision of the Owner shall be final, binding, and conclusive on all parties.

3.2.9.4 Costs of increases in premiums for the Contractor's Payment Bond and Performance Bond, or other bonds required by the Owner, provided coverage for the cost of the change in the Work results in such increased costs. Prior to requesting payment for the Change Order work, the Contractor shall provide proof of its notification to the Surety of the change in the Work and of the Surety's agreement to include such change in its coverage. The cost of the increase in premium shall be an allowable cost but shall not be marked up for overhead and profit. In no event shall an increase in premiums for the Contractor's Payment Bond and Performance Bond in excess of two percent of the cost of the change be allowable.

3.2.9.5 Sales, consumer, use, and other applicable taxes that are legally in effect at the time the change order is approved. The cost of the taxes shall be an allowable cost but shall not be marked up for overhead and profit.

3.2.9.6 Any other costs directly attributable to the change in the Work and approved by the Owner such as professional engineering costs, except those set forth in Articles 3.2.10.

3.2.9.7 The Owner may require any or all of the following documentation to be provided by the Contractor to support the Allowable Costs:

- (a) certified payroll records showing the name, classification, date, daily hours, total hours, rate, and extension for each laborer, foreman, supervisor or other worker;
- (b) equipment type & model, dates, daily hours, total hours, rental rate or other specified rate, and extension for each unit of equipment;
- (c) invoices for materials showing quantities, prices, and extensions;
- (d) daily records of waste materials removed from the Site and/or fill materials imported to the Site;
- (e) certified measurements of over excavations, piling installed and similar work; and/or

- (f) transportation records for materials, including prices, loads, and extensions.

3.2.10 Costs Not Allowable for Changes in the Work. Costs not allowable under any circumstances are as follows:

3.2.10.1 Costs due to the negligence of the Contractor, Subcontractors, Suppliers or other persons for whom the Contractor is responsible, including but not limited to costs of delay, costs for the correction of Non-Compliant Work, costs for improper disposal of material, costs for equipment wrongly supplied, costs for the Contractor's delay in performing the Work, or costs for delay in ordering and obtaining normally available materials or equipment.

3.2.10.2 Home office expenses, including payroll costs for the Contractor's or any Subcontractors' or Suppliers officers, executives, administrators, accountants, counsel, engineers, timekeepers, estimators, clerks, and other similar administrative personnel employed by the Contractor, whether at the Site or in the Contractor's or a Subcontractor's principal or branch office for general administration of the Work (including those referred to as "Eichlay costs"). These costs are deemed overhead included in the percentage markups allowable in Article 3.2.8 above.

3.2.10.3 Home and branch office expenses that include, but are not limited to, expenses of Contractor's, Subcontractors, or Suppliers home and branch offices, capital expenses, interest on capital used for the Work, charges for delinquent payments, small tools, incidental costs, rent, utilities, telephone and office equipment, and other general overhead expenses of the home and branch office (including those referred to as "Eichlay costs").

3.2.10.4 Where Work is deleted from the Contract (by Bulletin, Change Order, or otherwise) prior to commencement of that Work without substitution of other similar Work, one hundred percent of the Contract Sum attributable to that Work shall be deducted from the Contract Sum. However, in the event that material submittals have been approved and orders placed for said materials, a lesser amount as justified by proper documentation shall be deducted from the Contract Sum. The credit if any to the Owner for reduced premiums on payment bonds and performance bonds shall be in all cases one hundred percent of the credit. If the deductive Change Order affects the critical path or the schedule and it causes an overall reduction in the Contract Time, jobsite time dependent expenses shall be included in the deduction at a mutually agreeable amount or rate.

3.2.10.5 Wages of a foreman, if the foreman is concurrently supervising other Work at the Site.

3.2.10.6 Premiums for bonds required of Subcontractors by the Contractor.

3.2.11 Change Order Formats. Formats for Lump Sum Change Orders and for Change Orders based upon either a force account or upon unit pricing with an indeterminate number of units are in Section 7, Forms.

3.2.12 Changes due to Subsurface or Other Unforeseen Conditions.

3.2.12.1 Subsurface Conditions. Unless the Contract Documents stipulate specific quantities and units of rock or unsuitable soils, the Contractor shall assume material below the surface of the Earth to be earth and other material that can be removed by power shovel or similar equipment. Should conditions encountered below the surface of the ground be at variance to the number of unit requirements as indicated by drawings or specifications, and absent an agreed-upon unit price established prior to the bid by Addendum, or after contract execution by Change Order, the Contract Sum and/or time shall be adjusted as provided in the Contract Documents for changes in the work.

3.2.12.2 Other Unforeseen Conditions. If unknown physical conditions are encountered at the Site that differ materially from those indicated in the Contract Documents, then the Contractor shall give notice to the Design Professional promptly before conditions are further disturbed, but in no event later than two business days after the first observance of the conditions. The Design Professional shall promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost or time required for performance of any part of the Work, the Design Professional may recommend an adjustment by Change Order to the Contract Sum or Contract Time, or both. If the Design Professional determines that the conditions at the Site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Design Professional shall so notify the Owner and the Contractor in writing, stating the reasons. Protest by either party of the Design Professional's decision shall be in accordance with Section 5, Part 2.

3.2.13 Compensable Rock. CAUTION: No rock for which extra compensation is expected to be received shall be removed except pursuant to and in conformity with a written authorization or order of the Owner. Unless otherwise provided in the Bid Documents, no removal of rock as defined herein shall be included in the Bid. Shale, rottenstone, or stratified rock that can be loosened with a pick or removed by a hydraulic excavator equivalent to a Caterpillar Model 215, a single engine pan (Caterpillar 621 or equivalent) that is pushed by a crawler tractor (Caterpillar D-8K or equivalent), or similar equipment shall not be classified as rock.

3.2.13.1 Definitions of Compensable Rock. Rock, for the purposes of pricing its removal, is defined as follows:

3.2.13.1.1 Rippable Rock. Rippable rock is defined as any material that can be ripped with a single-tooth hydraulic ripper drawn by a crawler tractor having a minimum draw bar pull rated at not less than 56,000 pounds (Caterpillar D-8K or equivalent) and occupies an original volume of at least one cubic yard.

3.2.13.1.2 Mass Rock. Mass rock is defined as any material that cannot be ripped with a single-tooth hydraulic ripper drawn by a crawler tractor having a minimum draw bar pull rated at not less than 56,000 pounds (Caterpillar D-8K or equivalent) and occupies an original volume of at least one cubic yard.

3.2.13.1.3 Trench Rock. Trench rock is defined as any material that must be removed from a trench that cannot be excavated with a hydraulic excavator having a bucket curling force rated at not less than 18,300 pounds (Caterpillar Model 215 or equivalent) and occupies an original volume of at least one-half cubic yard.

3.2.13.1.4 Caisson Rock. Caisson Rock is defined as material that must be removed from a shaft which cannot be penetrated faster than two feet per hour (fifteen minute minimum) using a rock auger with bullet-shaped hardened steel teeth (Kennametal bits or equivalent), and the drilling equipment should have the capacity to produce a continuous torque of at least 1,000,000 inch pounds and a downward force of at least 50,000 pounds (a Hughes LLDH in good working condition) for piers up to seventy two inches in diameter. Use of equipment with greater torque or downward force modifies the definition of refusal to be the point at which the equipment cannot penetrate faster than two feet per hour (fifteen minute minimum). In rare cases, refusal may occur on a rock seam or boulder above the general massive rock surface. The compensation for Caisson Rock should include only material that cannot be penetrated by the rock auger at the specified rate.

3.2.13.2 Pricing for Compensable Rock. All compensable rock shall be priced by unit prices upon volume prior to removal and shall be calculated by survey and engineering calculations. No rock shall be priced by truckload, bucket load, or other similar pricing methods. Unit prices shall be determined prior to removal, either in the Contract Documents or by Change Order. Unit prices shall be inclusive of all profit and overhead. Unit prices shall include the following:

- (a) Excavation and removal of all rubble;
- (b) Addition and removal of overburden for blasting;
- (c) Excavation of all blast rubble;

(d) All costs of labor, equipment, supplies, blasting materials, safety requirements, drayage, haulage, and disposal, including offsite disposal costs.

The decision of the Design Professional as to any adjustment in the Contract Time shall be final.

3.2.14 Release of Claims. The execution by the Contractor of a Change Order shall be and operate as a release to the Owner of all claims by the Contractor and of all liability owing to the Contractor for all things done or furnished in connection with the Work described in the Change Order. The execution of any Change Order by the Owner shall not be an acceptance of any Work or materials not in accordance with the Contract Documents, nor shall it relieve the Contractor of responsibility for faulty materials or workmanship or operate to release the Contractor or his surety from any obligation arising under the Contract or the Performance Bond or Payment Bond.

3.2.15 Sole Source Designation for Change Order Work.

3.2.15.1 Definition of Sole Source. As used in this Article, “Sole Source” means a Subcontractor or Supplier specified by name in a Bulletin as the exclusive source from which conforming goods or services must be obtained. Designation of goods or services by reference to a named source accompanied by the qualification “or equal” or similar language is not a designation of a Sole Source as that term is defined herein.

3.2.15.2 Limitations. This Article applies only to Bulletins referenced in a proposed Change Order that designates a Sole Source that was not designated in the Bidding Documents. Except as stated in this Article, the Contractor’s inability to obtain payment and performance bonds from Sole Source Subcontractors or warranties from Subcontractors, as required under the Bidding Documents for this Contract, shall not otherwise excuse the Contractor from its bonding and warranty obligations under this Contract.

3.2.15.3 Sole Source as Grounds for Rejection of a Change Order. If a Change Order is submitted to Contractor for the purposes of adding a Bulletin to this Contract and said Bulletin designates a Sole Source from which Contractor is required to procure goods or services necessary to perform the Work, which Sole Source has not been designated previously, Contractor shall be entitled to reject the proposed Change Order if the designated Sole Source refuses to provide to Contractor the warranties, bonds, terms or schedule required under the Contract Documents, including any warranty or terms or schedule required by Bulletins referenced in the proposed Change Order. In such event, Contractor shall give written notice to the Owner rejecting the proposed Change Order and, if possible, shall accompany said written notice with a proposal from Contractor for changes or modifications to the Bulletin so as to eliminate the Sole Source designation but to achieve goods or services equal in quality or function. The Owner may then require the Design Professional to revise the subject Bulletin so as to eliminate the designation of the Sole Source by incorporation of Contractor’s proposal or otherwise. Upon revision of the Bulletin by the Design Professional and approval thereof by the Owner, the Owner shall again submit to the Contractor a proposed Change Order for the purpose of adding the revised Bulletin to this Contract. If the Owner decides to retain the Sole Source in the Change Order and Contractor cannot acquire the full contractually required warranties from the Sole Source, Contractor shall be held only to the warranty terms and schedule obtainable from the Sole Source.

3.2.15.4 No Excuse Without Notice. If Contractor accepts a proposed Change Order adding a Bulletin to this Contract that designates a Sole Source without invoking this Article and putting the Owner on notice, Contractor shall not be excused from its obligations with respect to the described Work by reason of the refusal of a designated Sole Source to provide warranties as required under this Contract.

PART 3 – TIME

3.3.1 Time is of the Essence. Time is of the essence of this Contract and all obligations hereunder.

3.3.2 Competent Management of Time. The Contractor has represented to the Owner, in order to be awarded this contract, that the Contractor is experienced in managing construction in accordance with contract requirements and in a timely manner and that the Contractor has included in his proposal sufficient sums to carefully and competently manage this project for completion within the stipulated Contract Time.

3.3.3 Contract Time.

3.3.3.1 Fair and Reasonable. The Contractor has carefully examined and analyzed the Site, the Contract Documents, and all known factors related to his ability to complete this project within the Contract Time stipulated. By submitting his bid for this project, the Contractor agrees that the stipulated Contract Time is fair and reasonable.

3.3.3.2 Delays. The parties recognize there may be delays to perform Change Order work in the event that conditions encountered at the Site are different from those indicated in the Contract Documents, or to perform Change Order work to correct errors in the plans and specifications. Execution of any change must be authorized. In such event, there shall be an adjustment in the Contract Sum as provided in the Contract Documents for changes in the Work; the parties agree that such delays are not a ground for claiming extraordinary remunerations except as set forth in this Contract in Article 3.3.8 below.

3.3.4 Commencement, Prosecution, and Completion.

3.3.4.1 Commencement, Prosecution, and Completion of Work. The Contractor shall (a) commence performance of its activities on the Site within five days of the date specified in the Proceed Order. (b) prosecute the work with faithfulness and energy (c) install the various parts of the work with equal steps shown on the Overall Project Schedule and at the same rate (or better) shown on the Overall Project Schedule and (d) complete the work within the Contract Time, as adjusted. Commencement of work shall mean actual physical work on the Site. Unless otherwise agreed, and subject to Change Orders, Material Completion of the Project must be achieved on or before the date established as the Material Completion and Occupancy Date under the Schedule.

3.3.4.2 Contractor's Acceleration for failure to meet Schedule Requirements. In the event the Contractor shall be delinquent in respect to achieving the Milestone dates established in the Overall Project Schedule, Contractor shall, within seven days after receipt of written demand of the Owner, cause its employees and Subcontractors to perform work at an accelerated pace with hours and days in addition to the normal working hours and working days, as necessary to promptly bring the Work into compliance with the Overall Project Schedule. Fulfillment of this requirement as to overtime work shall not relieve the Contractor from liability for breach of the covenant as to time. For account of recovery of lost time required of the Contractor for its breach of covenant as to time, the Contractor shall be entitled to no claim against the Owner for any payment, repayment, reimbursement, remittance, remuneration, compensation, profit, cost, overhead, expense, loss expenditure, allowance, charge, demand, hire, wages, salary, tax, cash, assessment, price, money, bill, statement, dues, recovery, restitution, benefit, recoupment, exaction, injury or damages.

3.3.5 Construction Progress Schedule (Overall Project Schedule).

3.3.5.1 Submittal, Approval, and Updates. Not later than thirty (30) days after the Effective Date of the Contract, but prior to the Proceed Order, the Contractor must submit a Construction Progress Schedule in accordance with Section 2.1.5. The Construction Progress Schedule will include an anticipated Notice to Proceed date and shall be updated based upon the Actual Notice to Proceed within 10 days of receipt of the Proceed Order.

3.3.5.2 Approval of Overall Project Schedule. Upon recommendation by the Design Professional and approval by the Owner, the Construction Progress Schedule shall become the Overall Project Schedule,

and becomes a part of this Contract. The Overall Project Schedule shall govern the schedule of activities of the Contractor under this Contract

3.3.5.3 Monthly Updates. The Contractor must provide the Design Professional and the Owner with monthly updates of the Overall Project Schedule indicating completed activities and any changes in sequencing or activity durations. (See also Articles 2.1.2 and 2.1.5).

3.3.6 Completion Date. The Work under this Contract shall be completed by midnight of the date required in the Contract as the Material Completion and Occupancy Date unless extended by approved requests for extension of time.

3.3.7 General Rule – No Damages for Delay, Extension of Time Sole Remedy. Contractor shall not be entitled to any damages for delay or to any other reimbursement as a Cost of the Work, or to an increase in the contract amount, or to payment, damages, monies, or compensation of any kind from Owner for direct, indirect, impact, or disruption damages (including but not limited to costs of acceleration of Work or any Phase thereof) arising because of delay or other hindrance of any kind whatsoever; except as specifically permitted by Article 3.3.8. Extension of the Contract time is the Contractor's sole remedy for any delays pursuant to this Article 3.3.7 which are not the fault of the Contractor.

3.3.7.1 Force Majeure. If, between the Proceed Order and the Material Completion and Occupancy Date, as amended, the Contractor is unable to perform or is delayed in the performance of any of the terms and provisions of this Contract as a result of (i) governmental preemption of materials in connection with a national emergency declared by the President of the United States; (ii) riot, insurrection, acts of terror or terrorism or other civil disorder affecting performance of the Work; or (iii) earthquakes, or unusual and extreme weather conditions constituting Acts of God, then, and in any such event, such inability or delay shall be excused, and the time for completing the affected portions of the Project (and the entire Project, if applicable) shall be extended for such reasonable period of time as the delay has affected the performance of the Work hereunder. Contractor shall take all reasonable actions to minimize the delay caused by any of the above factors, and shall notify Owner in writing with a copy to the Design Professional of any event allowing for excuse or delay not later than seven days after the Contractor first becomes aware of the event, or should have become aware, of the event; otherwise Contractor will be deemed to have waived the excuse or delay.

3.3.7.2 Abnormal Weather. Extensions of time will be granted for abnormal inclement weather conditions that delay the critical path of the progress of the work.

3.3.7.2.1 Abnormal weather delay is defined as days lost to weather conditions either (i) in excess of days specified in the Supplementary General Conditions, or (ii) if not defined in the Supplementary General Conditions, as days in excess of a local historic average prevailing at the Site recorded by the National Oceanic and Atmospheric Administration (NOAA) for the 120 months immediately preceding the date specified in the Proceed Order.

3.3.7.2.2 Not later than ten days after the first occurrence of the event giving rise to the claim or with respect to claims for extension of time as a result of abnormal weather, and not later than ten days after the end of each calendar month thereafter, the Contractor shall file a claim with the Design Professional with a copy to the Owner. By not later than fifteen days from the receipt of the claim, the Design Professional shall render a decision concerning the allowance of an extension of time and shall report his decision to both the Contractor and the Owner. If additional time is allowed, the Contract time shall be extended by Change Order

3.3.8 Exception to General Rule – Compensation for Delay. The extension of the Contract Time and the adjustment to the Contract Sum specifically provided for in this Article shall be Contractor's sole and exclusive remedy for delays, hindrances, interferences or resulting inefficiencies and re-sequencing.

3.3.8.1 Delay by Other than Contractor: Owner, Design Professional, or Separate Contractor.

3.3.8.1.1 Delay by Owner, Design Professional, or Separate Contractor. If the Contractor is delayed in the progress of the Work between the Proceed Order and the Material Completion and

Occupancy Date, as amended, by an act or neglect of the Owner, Owner's employees, Design Professional or Separate Contractors employed by the Owner, then the Contractor may request an extension of the Contract Time as provided in paragraph 3.3.8.1.3 below.

3.3.8.1.2 Delay in Responses to Submittals. Any claim by Contractor for a change in the Material Completion and Occupancy Date due to delay of responses to submittals may be made during the time while the failure of the Design Professional to act or perform continues, or within seven days after such failure to act or perform has been cured. If no Submittal Schedule or agreement as required in Paragraph 2.2.3.1 is agreed upon, then a claim for delay will be allowed only after the Design Professional has been allowed fourteen days to take action. Any claim for extension of time must be reasonable and take into consideration the nature of the submittal.

3.3.8.1.3 In the event of delay as described in paragraph 3.3.8.1.1 or 3.3.8.1.2 above then the Contract Time may be extended by Change Order for such reasonable time as the Design Professional and the Owner may determine; provided, however, that (i) such delays extend the Overall Project Schedule's critical path; (ii) the Contractor has taken all reasonable actions to mitigate the effects of the delay on the Work; (iii) the fault or negligence of the Contractor, the Contractor's agents or employees did not materially contribute to such causes; and (iv) the Contractor shall have notified Owner of the cause or causes of such delay within fourteen days from the date on which the Contractor first becomes aware of such delay.

3.3.8.2 Compensation for Delay – Certain Change Orders.

3.3.8.2.1 Owner-Requested Changes. If the Owner requests changes in the Contract Documents that would materially affect the completion of the Work by lengthening the critical path of the Overall Project Schedule, the Design Professional shall determine the appropriate number of days and thereby extend the Material Completion and Occupancy Date.

3.3.8.2.2 Other Change Orders. For Change Orders involving the following situations that would materially affect the completion of the Work by lengthening the critical path of the Overall Project Schedule, the Design Professional shall determine the appropriate number of days and thereby extend the Material Completion and Occupancy Date.

- (a) Changes due to Subsurface or Other Unforeseen Conditions, Article 3.2.12.
- (b) Changes for Compensable Rock, Article 3.2.13.
- (c) Changes deleting work, Paragraph 3.2.3.2.2.

3.3.8.2.3 To be Processed as a Part of the Change Order Process. Extensions of Time and compensation for delay are to be processed as a part of each Change Order pursuant to Section 3, Part.

3.3.9. Non-Compensable Delay.

Contractor understands, acknowledges and agrees that delays occasioned by the events and occurrences set forth below are not compensable delays and do not constitute reason for extending the Date for Material Completion. It is Contractor's responsibility to make adequate provision for the following in scheduling the Work:

3.3.9.1 Delay in Delivery of Materials or Equipment. Delay in delivery of materials or equipment for any cause other than those specified in Paragraph 3.3.8.3. No claim will be approved if materials or equipment are delayed due to Contractor's tardy procurement or expediting.

3.3.9.2 All Other Delay. All delay not covered in Article 3.3.8.

3.3.10 Submission of Claims for Compensation for Delay and to Extend the Material Completion and Occupancy Date.

3.3.10.1 Time for Submission. Except as specified below, any claim by Contractor for a change in the Contract Sum or the Material Completion and Occupancy Date shall be made within fourteen days of the day on which the Contractor becomes aware of the event on which the claim is based or, if the Contract Documents specify a shorter or longer period with respect to such event, within the period specified by the Contract Documents.

3.3.10.2 Delay Claim Must Be In Writing. Any claim to extend the Contract Sum or Material Completion and Occupancy Date must be in writing, must set forth in detail the basis for the claim and the number of days of delay claimed, must be correlated with the approved Overall Project Schedule, must be executed by the Contractor and delivered to the Design Professional and the Owner, and must be reviewed and an appropriate time assessed by the Design Professional.

3.3.10.3 When Delay Claim Deemed Waived. Any claim to extend the Contract Sum or Material Completion and Occupancy Date not made in writing to Owner within the above time periods shall be deemed waived and shall not thereafter be valid. In the case of a continuing delay as a result of a single event, only one claim submission is necessary.

3.3.10.4 Design Professional to Decide. The Contract Sum or the Material Completion and Occupancy Date may be extended for such reasonable time as the Design Professional may decide, and the Overall Project Schedule shall then be updated.

3.3.10.5 This Article Not Applicable to Change Orders. The provisions of this Article are not applicable to processing changes to the Contract Sum, the Material Completion and Occupancy Date, or compensation for Costs that arise pursuant to either Change Orders or to the Contractor's rejection of a Change Order due to Sole Source Designation pursuant to Article 3.2.12. Such extensions and compensation are processed as a part of the issuance of the Change Order pursuant to Section 3, Part 2.

3.3.11. Recovery of Schedule Delays.

3.3.11.1 Recovery of Schedule Delays. If the Design Professional determines that the Project is one week or more behind schedule, per the approved Overall Project Schedule, the Design Professional shall so notify the Contractor in writing. Within seven days of the date of the Design Professional's notice, the Contractor shall deliver to the Design Professional and Owner a written plan explaining how the Contractor intends to bring the Project back on schedule. The Contractor's plan must provide sufficient detail to allow the Design Professional and Owner to determine the proposal's feasibility.

3.3.11.2 Recovery of Schedule Delays During Last Sixty Days of Contract Time. At any time during the last sixty days of the Contract Time that the Design Professional or Owner finds that the Contractor is behind schedule per the Contract Time, as amended, the Design Professional or Owner shall notify the Contractor in writing. Within seven days of the date of such notice, the Contractor shall prepare and deliver to the Design Professional and Owner a written plan explaining how the Contractor intends to bring the Project back on schedule. The Contractor's plan must provide sufficient detail to allow the Design Professional and Owner to determine the proposal's feasibility.

PART 4 – CORRECTING THE WORK, INSPECTIONS, COVERING AND UNCOVERING WORK

3.4.1 Duty to Promptly Correct Work. The Contractor shall promptly correct Work rejected by the Design Professional or Owner or known by the Contractor to be defective, damaged, or failing to conform to the requirements of the Contract Documents, whether observed before or after Material Completion and whether or not designed, fabricated, installed, or completed. The Contractor shall bear costs of correcting such rejected Work, including without limitation additional testing and inspections

3.4.1.1 Full and Complete Charge. Notwithstanding the provisions of this Contract, and until Material Completion, the Contractor shall have full and complete charge and care of the Work or any portion thereof (including the Owner-furnished supplies, material, equipment, or other items to be utilized or incorporated in the Work). After Material Completion is achieved, the Contractor shall remain in complete charge and care of the items remaining to be completed on the initial Punchlist and Permitted Incomplete Items until all are accepted by the Owner on or before Final Completion.

3.4.1.2 Make Good Losses. The Contractor shall rebuild, repair, restore, and make good losses of, and injuries or damages to, the Work or any portion thereof (including the Owner-furnished supplies, material, equipment, or other items to be utilized with, or incorporated in, the Work and that are at the Site) before Material Completion of the Work. Such rebuilding, repair, or restoration may be paid from the Construction Contingency; provided, however, that the Owner will make available applicable proceeds from the Builders' Risk policy required by the Contract Documents.

3.4.1.3 No Limitation. Nothing contained in this Part shall be construed to establish a period of limitation with respect to the Contractor's obligations to correct defective or non-conforming Work under this Contract, at law or in equity.

3.4.2 Correcting the Work.

3.4.2.1 Notice of Non-Compliant Work. A Notice of Non-Compliant Work shall be in writing, shall be dated, shall be signed by the Design Professional, shall be addressed to the Contractor with a copy to the Owner, and shall contain three elements as follows:

3.4.2.1.1 Description of Work.

- (a) that has been omitted or
- (b) that is unexecuted as of the date of the Notice of Non-Compliant Work, the time for its incorporation into the work as planned in the Overall Project Schedule having expired, or
- (c) that has not been executed in accordance with the methods and materials designated in the Contract Documents.

3.4.2.1.2 Contract References: Citation of the provision or provisions of the Contract Documents which specify the Work to be executed.

3.4.2.1.3 Time for Compliance. Fixing of a reasonable space of time within which the Contractor shall have made good the deficiency (which said space of time shall not be deemed to be an extension of Contract Time) for filing the Notice of Readiness for Inspection for Material Completion pursuant to Article 6.3.2 nor shall it be deemed to be authorization for amendment to the Overall Project Schedule.

3.4.2.2 Failure to Supply Workmen or Materials or to Prosecute the Work. A Notice of Non-Compliant Work may be issued for failure of the Contractor to supply enough workers or enough materials or proper materials to prosecute the Work. A Notice of Non-Compliant Work in such event may be based on Article 3.3.2 (Competent Management of Time), and upon the definition of Work as set forth under Paragraph 1.1.9.57.

3.4.2.3 Removal and Making Good of Non-Compliant Work. The Contractor shall remove from the Site within the space of time designated in Notice of Non-Compliant Work all work determined by the Design

Professional as failing to conform to the contract, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract and without expense to the Owner and shall bear the expense of making good all work of other contractors destroyed by such removal or replacement. The Contractor shall supply any omitted work and perform all unexecuted work within the space of time fixed by the Design Professional in Notices of Non-Compliant Work.

3.4.2.4 Remedy of the Owner for Breach of Notice of Non-Compliant Work.

3.4.2.4.1 Failure to Make Good a Deficiency. If the Contractor does not make good a deficiency within a reasonable space of time fixed in a Notice of Non-Compliant Work, the Owner may do any of the following:

(a) Remove the Non-Compliant Work and store it at the expense of the Contractor. If the Contractor does not pay the expenses of such removal and storing within ten days after receipt of written demand of the Owner, the Owner may upon three days' notice in writing to the Contractor sell such materials at private sale or at auction and shall account for the net proceeds thereof after deducting all proper costs incurred by the Owner.

(b) Supply omitted work, perform unexecuted work, or replace and re-execute work not done in accordance with the methods and materials designated in the Contract Documents, and deduct the cost thereof from any payment then or thereafter due the Contractor.

3.4.2.4.2 Other Remedies. The remedies stated in this article are in addition to the remedies otherwise available to the Owner, do not exclude such other remedies, and are without prejudice to any other remedies. Time limits stated in Notices of Non-Compliant Work are of the essence of the contract. Unless otherwise agreed to by the Owner in writing, the making good of Non-Compliant work shall physically commence at the Site in not more than seven days after receipt of the Notice of Non-Compliant Work, except that in case of emergency correction shall physically commence at the Site at once, and except that the Contractor shall in any event physically commence the correction at the Site early enough to complete within the space of time allowed in the Notice of Non-Compliant Work. The Owner shall give prompt consideration to reasonable requests for delay in commencement of the making good of Notices of Non-Compliant Work. The making good of Non-Compliant work shall be completed within the space of time allowed in the Notice of Non-Compliant Work unless the Contractor shall have requested from the Design Professional an increase in the amount of time allowed and the Design Professional shall have given notice to the Contractor in writing, with copy to the Owner, stating the additional amount of time, if any, allowed.

3.4.2.5 Notice of Correction from Contractor. The Contractor shall give prompt notice in writing to the Design Professional, with copy to the Owner, upon completion of the correction of the Non-Compliant work. In the absence of such notice, it shall be and is presumed under this Contract that there has been no correction, supplying remedy, or performance of unexecuted work.

3.4.2.6 The Owner's Right to Correct Work. If the Contractor should neglect to prosecute the Work properly or fail to correct Non-Compliant Work or fail to perform any provision of this Contract, the Owner, after three days' written notice to the Contractor, may without prejudice to any other remedy he may have (including without limitation remedies against the Contractor's surety), make good the deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

3.4.3 No Delay. Work requiring correction shall be corrected immediately and shall be carried out in such a way not to delay the completion of the Project. If it is not feasible to correct said work immediately, the corrective work shall be done on a schedule acceptable to the Owner.

3.4.4 Effect of Notice of Non-Compliant Work. Notwithstanding anything contained in the Contract Documents to the contrary, in order to minimize delays in the completion of the Project, the Contractor shall continue working while responding to a Notice of Non-Compliant Work and shall continue working while protesting any decision by the Design Professional or the Owner.

3.4.5 Deductions for Uncorrected Work. If the Design Professional and Owner deem it inexpedient to correct work injured or done not in accordance with the contract, an equitable deduction from the contract price shall be made therefore and confirmed by execution of a lump sum Change Order. There is no duty on the part of the Owner, however, to accept any work injured or done not in accordance with the methods and materials designated in the contract documents, nor does the Contractor have the right to demand that there shall be acceptance of work injured or done not in accordance with the methods and materials designated in the Contract Documents.

3.4.6 Inspections.

3.4.6.1 Access to Work. The Design Professional, the Owner, and their representatives shall have access at all times to the work wherever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and for inspection.

3.4.6.2 Notice of Readiness for Inspection to Design Professional from Contractor Prior to Covering Work. If the specifications, the Design Professional's instructions (either in the specifications or issued later in writing), laws, ordinances or any public authority require any work to be specially tested or approved, the Contractor shall give the Design Professional timely notice in writing of its readiness for inspection. If the inspection is by any authority other than the Design Professional, the Contractor shall give timely notice of the date fixed for such inspection. Inspections by the Design Professional shall be made promptly and, where practicable, at the source of supply.

3.4.6.3 Fire Marshal Inspections.

3.4.6.3.1 General. The State Fire Marshal may make inspections at any time. It shall be the responsibility of the Contractor to request an inspection at 80% completion and at 100% completion and to give notice when all items on the 100% inspection report have been completed. Requests shall be in writing with a copy to the Owner and Design Professional.

3.4.6.3.2 Inspections Defined. The basic definitions for 80% and 100% inspections are as outlined by the State Fire Marshal, but are generally as follows:

(a) 80% Inspection: The structural components are in place and open for review of the fire safety components. NOTE: Structural components include the following: fire walls, vertical shafts, stairways, smoke stops, hazardous area separation, roof and ceiling assemblies, corridor and door width, and HVAC system.

(b) 100% Inspection: The Contractor has completed all of the items on the 80% inspection report with no exceptions.

3.4.6.4 False Start. In the event the Contractor shall have issued notice of readiness prematurely, his action shall be deemed to be a "false start." The Contractor shall be liable for the damage resulting from the aforesaid false start, including, but not limited to, the salary, professional fees, and travel and living expenses of the person or parties inconvenienced by the aforesaid false start.

3.4.6.5 Certificate of Occupancy. The Contractor's obligation under the Contract is to install the Work in accordance with the Contract Documents, obtain the Certificate of Occupancy from the State Fire Marshal or his deputy, and forward it to the Design Professional as a part of the final close out procedures. The Design Professional's obligation is to design the Work to comply with the applicable codes and to qualify for a Certificate of Occupancy.

3.4.7 Covering and Uncovering Work.

3.4.3.1 Re-examination or Re-testing of Work Covered Pursuant to Consent of Design Professional. Re-examination or re-testing of questioned Work previously covered pursuant to consent of the Design Professional may be ordered by the Design Professional. If so ordered the Work must be uncovered by the Contractor. The Owner shall pay the cost of re-examination and replacement or of re-testing if such Work is found in accordance with the Contract Documents. The Contractor shall pay such cost if such Work is

found not in accordance with the Contract Documents unless the Contractor can show that a Separate Contractor caused the defect in the Work. In that event, the Owner shall pay such cost. Re-examination or re-testing under the terms of this Paragraph applies only to Work that has been covered with consent of the Design Professional. Work covered without consent of the Design Professional must be uncovered for examination as provided below.

3.4.3.2 Re-examination or Re-testing of Work Covered Without Consent of Design Professional. If any Work should be covered without approval or consent of the Design Professional or contrary to any provision of the Contract Documents, such Work must be uncovered for examination by the Design Professional at the Contractor's expense. The Contractor shall be liable for the costs resulting from the aforesaid uncovering, including, but not limited to, the salary, professional fees, and travel and living expenses of the person or parties inconvenienced thereby.

3.4.8 Inspection Does Not Relieve Contractor. Under the Contract Documents, the Contractor acknowledges that it has the responsibility for furnishing all services, labor, supplies, and materials for the entire Work in accordance with such documents. No provisions of this article nor any inspection of the Work by the Owner, representatives of the Owner, Contract Compliance Specialist, engineers employed by the Design Professional, representatives of the Design Professional, or the Design Professional shall in any way diminish, relieve, or alter said responsibility and undertaking of the Contractor. Neither shall the omission of any of the foregoing to discover or to bring to the attention of the Contractor the existence of any Work or materials injured or done not in accordance with said Contract Documents in any way diminish, relieve, or alter such obligation of the Contractor nor shall the aforesaid omission diminish or alter the rights or remedies of the Owner as set forth in the Contract Documents. The Contract Compliance Specialist owes no duty to the Contractor.

3.4.9 Owner May Require Uncovering of Work. The Owner may require any Work to be uncovered, whether or not prior information was provided as to the schedule for covering. Should work so uncovered prove to be in noncompliance with the Contract Documents or the Construction Documents, the cost of uncovering, correction of the Work, recovering, and any schedule recovery costs shall be borne by the Contractor and may be paid from the Construction Contingency. However, if the Contractor complies with the notice requirements above, and the Owner fails to make its desired inspections, and the Owner then requires the Contractor to uncover the Work, the Owner shall bear all additional costs of uncovering and recovering the Work unless the Work is found to be non-compliant with the Construction Documents, in which case the Contractor shall bear all such uncovering and recovering costs, which may be paid from the Construction Contingency. Should the work be compliant, however, the Owner will pay for the uncovering and repair of the affected work, in addition to any delay that affects the critical path of the Project.

3.4.6 Owner May Pay for Uncovering Work. Should the Owner require work to be uncovered contrary to the Contract Documents and the Construction Documents, the Owner shall compensate the CONTRACTOR for any extra cost caused the CONTRACTOR, including any cost of schedule recovery.

PART 5 – SUBCONTRACTORS AND SUPPLIERS.

3.5.1 Subcontractors and Suppliers.

3.5.1.1 Submission of List. Within fourteen days of the Effective Date of the Contract, the Contractor shall submit in writing to the Design Professional a list of the names of Subcontractors that the Contractor intends to employ on the Work. The list of Subcontractors is not submitted for approval but is for the purpose of establishing the following:

- 3.5.1.1.1 What trades and portions of the work are to be performed under subcontract, and.
- 3.5.1.1.2 The names of the parties selected by the Contractor to perform work by subcontract, the aforesaid selection being a matter lying solely within the discretion of the Contractor.
- 3.5.1.1.3 The Contractor shall identify each minority owned and each female owned Subcontractor or Supplier performing work on or supplying material to the project.
- 3.5.1.1.4 By not later than the tenth day of the month following the end of each quarter the Contractor shall submit to the owner a list of all minority and female owned Subcontractors, or Supplier performing work on or supplying material to the Project and the amount paid to each for that quarter.

3.5.1.2 No Approval of Subcontractors and Suppliers. Neither the Owner nor the Design Professional undertakes to pass upon or approve any Subcontractor or Supplier.

3.5.2 Representation of Contractor. The Contractor represents that the Subcontractors and Suppliers selected by it are reputable, skilled, reliable, competent, qualified in the trade or field in which they are to perform on the Project, and thoroughly familiar with the codes and laws applicable to their work.

3.5.3 Contractor Responsible for Acts and Omissions. The Contractor agrees that he is as fully responsible for the acts and omissions of his Subcontractors, Suppliers, and employees, and further of all persons directly or indirectly employed by them, as the Contractor is for the acts and omissions of employees and persons directly employed by the Contractor. The failure of a Subcontractor, Supplier, or employee to perform shall not be asserted by the Contractor as an excuse for any omission from or noncompliance with requirements of the Contract Documents; nor shall the Contractor be entitled to an extension of time solely because of failure of a Subcontractor, Supplier, or employee to perform. The subcontracting of work does not relieve the Contractor of the responsibility for the execution of the work and for compliance with all requirements of the Contract Documents. The Contractor shall not assert negligence, inefficiency, insolvency, bankruptcy, or incompetence of any Subcontractor, Supplier, or employee as excuse for the existence of any noncompliance with or omission to fulfill any obligation under the Contract either as to timely performance or as to compliance with methods and materials designated in the Contract Documents; nor shall the Contractor assert nonperformance of a Subcontractor, Supplier, or employee as excuse for the existence of any noncompliance with or omission to fulfill any obligation under the Contract. As to Subcontractor, Supplier, and employees of the Contractor, the doctrine that a principal is liable for the acts and omissions of his agent shall be binding on the Contractor in his relationship to the Owner, and the Contractor may not reverse the aforesaid doctrine by contract or legal mechanism.

3.5.4 No Contract between Owner and Any Subcontractor, Supplier, or Employee. Nothing contained in the Contract Documents shall create any contractual relation between the Owner and any Subcontractor, Supplier, or employee of the Contractor or its Subcontractors.

3.5.5 Relationship of Contractor with Subcontractors, and Suppliers.

3.5.5.1 Obligations of Each. The Contractor agrees to bind every Subcontractor, Supplier (hereinafter collectively referred to as "Subordinate Contractor") to the terms of the Contract Documents insofar as they are applicable to its work, including the following provisions of this Article:

3.5.5.1.1 The Contractor Agrees:

- (a) To be bound to the Subordinate Contractor by all the obligations that the Owner owes to the Contractor under the Contract Documents.
- (b) To pay the Subordinate Contractor upon the payment of certificates issued under the schedule of values described in the General Conditions the amount allowed to the Contractor on account of the Subordinate Contractor's work to the extent of the Subordinate Contractor's interest therein within seven days of receipt of payment from the Owner; provided, however, that retainage shall be released to the Subordinate Contractor as provided by law and in accordance with the statutory affidavit set forth in Section 7, Forms.
- (c) To pay the Subordinate Contractor upon the payment of certificates issued otherwise than the schedule of values such manner that at all times the Subordinate Contractor's total payments shall be as large in proportion to the value of the work done by the Subordinate Contractor as the total amount certified and paid to the Contractor is to the value of the work done by the Subordinate Contractor.
- (d) To pay the Subordinate Contractor a just share of any property insurance money received by the Contractor and due to Subordinate Contractor for work performed by Subordinate and paid for by insurance.
- (e) That no claim for services rendered or materials supplied or other matters by the Contractor against the Subordinate Contractor shall be valid unless written notice thereof is given by the Contractor to the Subordinate Contractor prior to or during the first ten days of the calendar month following that in which the Contractor determines that the claim is chargeable against that Subordinate Contractor.
- (f) To give the Subordinate Contractor, upon its request, an opportunity to be present with Contractor and to submit evidence in any dispute involving rights of the Subordinate Contractor.

3.5.5.1.2 The Contractor Agrees to require its Subcontractors to do the following:

- (a) To be bound to the Contractor by the terms of the Contract Documents and to assume toward the Contractor all the obligations and responsibilities that the Contractor by the aforesaid documents assumes toward the Owner.
- (b) To submit to the Contractor applications for payment in such reasonable time as to enable the Contractor to apply for payment under these General Conditions.
- (c) To make all claims for extras, for extensions of time or for damages to the Contractor in the manner provided in the General Conditions for like claims by the Contractor upon the Owner, except that the time for making such claims to the Contractor is within ten days after the initial event leading to the claim.
- (d) To pay their Subordinate Contractors upon the payment of certificates issued under the schedule of values described in the General Conditions the amount allowed on account of such Subordinate Contractor's work to the extent of such Subordinate Contractor's interest therein within seven days of its receipt of payment; provided, however, that retainage shall be released as provided by law and in accordance with the statutory affidavit set forth in Section 7, Forms.

(e) To pay their Subordinate Contractors upon Subcontractor's receipt of payment such that at all times their Subordinate Contractors' aggregate payments shall be in proportion to the Work performed by each of the Subordinate Contractors.

(g) To provide Contractor with O.C.G.A. § 13-10-91 affidavits certifying registration and participation in the federal work authorization program as required by O.C.G.A. § 13-10-91 (b) (3).

(f) To require their sub-subcontractors to provide them and Contractor with O.C.G.A. § 13-10-91 affidavits certifying registration and participation in the federal work authorization program as required by O.C.G.A. § 13-10-91 (b) (4).

3.5.5.2 Owner Not Obligated to Any Subcontractor, Subordinate Contractor, or Supplier. There is no obligation on the part of the Owner to pay to or to see to the payment of any sums to any Subcontractor, Subordinate Contractor, Supplier, laborer, employee, or person supplying labor, materials, machinery or equipment to the Project.

3.5.5.3 Term "Substantial Completion" Deleted. The term "substantial completion," if found, is hereby deleted and is of no force in all Subcontracts and in the Trade Sections of the Contract Documents. The term is to be superseded by the term "Material Completion" as defined in this Contract.

3.5.5.4 Failure to Incorporate Terms in Subcontracts. The Contractor agrees that failure on his part to incorporate this Article 3.5.5 in all Subcontracts, or Supplier contracts, is a material breach of an essential covenant of this Contract, and further agrees that in the event of such breach the Contractor shall, within five days after demand of the Owner, furnish proof in writing that the deficiency has been remedied to the end that (1) the Contractor may not maintain that it is beyond his competence to require performance of terms of the contract by a Subcontractor and (2) no Subcontractor may maintain that he has not assumed toward the Contractor all the obligations and responsibilities that the Contractor has assumed toward the Owner. Failure on the part of the Contractor to affect remedy as above within five days after receipt of written demand of the Owner shall be grounds for issuance of a declaration of default by the Owner.

SECTION 4 – COMPENSATION

PART 1 - GENERAL

4.1.1 Payments. The Owner will make progress payments to the Contractor in accordance with Section 4 of the General Conditions. Final Payment will be made in accordance with Section 6 of the General Conditions. The date and amount of payment are subject to Section 4, Part 2. Sums retained by the Owner remain the property of the Owner until such time as the Contractor shall have become entitled to receive such payment pursuant to Section 6 of the General Conditions by furnishing the remainder of the Work and services required by the Contract Documents.

4.1.2 Application for Payments.

4.1.2.1 Form of Application. The Contractor shall periodically submit to the Design Professional an Application for Payment on the form set forth in Section 7 (sometimes called a "Periodical Estimate") for each payment requested, and, if requested by the Owner or Design Professional, shall attach backup materials including, but not limited to, receipts or other vouchers, showing his payments for materials and labor, including payments previously made to Subcontractors.

4.1.2.2 Initial Breakdown and Periodical Payments. Each Application for Payment shall be submitted at least ten days before each payment falls due, and the Contractor shall, before the first application, shall submit to the Design Professional a Schedule of Values of the various parts of the work, including quantities, aggregating the total sum of the Contract, divided in the same manner set forth in the Application for Payment Form set forth in Section 7 showing the Contractor's right to the payment claimed and so arranged and so itemized as to meet the approval of the Design Professional and, further, if requested, supported by such evidence as to its correctness as the Design Professional may direct.

4.1.2.3 Materials Stored. If the Application for Payment includes materials delivered and suitably stored at the Site but not incorporated in the work, they shall, if required by the Owner or the Design Professional, be conditional upon submission by the Contractor of bills of sale or such other procedure as will establish the Owner's title to such material or otherwise adequately protect the Owner's interest. The Contractor is responsible for the existence, protection, and, if necessary, replacement of materials until execution of the Final Certificate of the Design Professional. The Owner shall not pay for any materials stored off-site.

4.1.2.4 Retainage.

4.1.2.4.1 Withholding of Retainage; Conversion to Lump Sum. Retainage shall be withheld from each periodic payment to the Contractor in the amount of ten percent of the sum of the total amount earned for work-in-place (original Contract), total amount earned for work-in-place (Change Orders), and Value of Materials stored at the Site. After one-half of the Contract Sum, including Change Orders becomes due and the Work meets all of the following conditions:

- (a) On or ahead of the Overall Project Schedule; and
- (b) There are no breaches of Notices of Non-Compliant Work; and
- (c) There is no delinquency in the completion of work and filing of the final breakdown and accounting pursuant to any Change Orders utilizing a Force Account;

Then, if the Contractor requests and the Design Professional approves in writing, the sum being withheld as retainage will be converted to a lump sum and held by the Owner until Material Completion.

4.1.2.4.2 Reinstatement of Retainage. The Owner will withhold no further retainage from payments to the Contractor unless one or more of the following events occur:

- (a) The percentage of work complete falls behind the percentage required by the Overall Project Schedule by as much as five percent; or
- (b) The Contractor breaches a Notice of Non-Compliant Work; or

- (c) The Contractor becomes delinquent in regard to the filing of the final breakdown and accounting pursuant to any Change Orders utilizing a Force Account; or
- (d) The Contractor commits any breach of the contract.

In which event or events the Owner shall reinstate the ten percent retainage on all Applications for Payment due to be paid while one or more of the events continues to exist. The Contractor will be given written notice of the reinstatement of the retainage.

4.1.2.4.3 Reconversion to Lump Sum. If the Contractor subsequently:

- (a) Recovers all lost time and puts the work back on schedule; and
- (b) Remedies all breaches of Notices of Non-Compliant Work; and
- (c) Supplies a proper breakdown and accounting pursuant to any Change Orders utilizing a Force Account; then the sums withheld while either or all of the events existed will be again converted to a lump sum.

4.1.2.5 Subcontractor's Retainage Release. At the discretion of the Owner and request by Contractor, an amount equal to the subcontract retainage of a Subcontractor may be separately released from the retainage held by the Owner as he completes his work. An application in accordance with the Owner's specimen form (a copy of which will be provided upon request) for release of a Subcontractor's retainage shall contain a release of all claims by the Subcontractor and shall bear the original certificates of the Subcontractor, the Contractor, and the Design Professional that the Subcontractor's work has been fully performed and that the sum for which payment is requested is due by the Contractor to the Subcontractor. Checks releasing a Subcontractor's retainage shall be made payable to the Contractor, the Contractor's surety, and the Subcontractor and shall be mailed to the Contractor's surety. This article does not create any contractual relationship between the Owner and the Subcontractor or any duty of the Owner to any Subcontractor.

4.1.2.6 Accounting Format. Applications for Payment shall be broken down by CSI Category and, in certain situations, by CSI Description and capital asset category, as set forth in the form for Application for Payment. The purpose is to provide appropriate backup documents for the Contractor's Final Certification of Costs in conformance with GASB 34 accounting standards. See Section 7 – Forms, "Application for Payment" and Final Certification of Costs.

- 4.1.3 Processing of Application for Payment (Periodical Estimates).** The Design Professional will review the Application for Payment prepared and executed by the Contractor and, if he concurs, execute a certificate on the face of the Application for Payment as to its accuracy. The Design Professional shall visit the Site after the Contractor and Design Professional have agreed on the Application for Payment and conduct such inspections and reviews as are necessary to make a decision as to the accuracy of the Application for Payment. If the Design Professional and the Contractor cannot agree on the appropriateness of the Application for Payment in question, the Design Professional shall make a decision. Upon determining the appropriateness of the Application, the Design Professional shall execute the certificate on the Application for Payment and forward it to the Owner for payment. Not later than seven days after receipt of the Application for Payment, the Design Professional shall issue its certificate for such amount as it decides to be properly due or state in writing its reasons for withholding any sums in its certificate.
- 4.1.4 Effect of Design Professional's Certificate on an Application for Payment.** No certificate issued by the Design Professional, nor payment made to the Contractor by the Owner, or partial or entire use or occupancy of the Work by the Owner shall be an acceptance of any work or materials not in accordance with the Contract Documents.
- 4.1.5 Payment Due.** Payment of an Application for Payment shall be due thirty (30) days after receipt by the Owner of the certification of the Application for Payment by the Design Professional.
- 4.1.6 Payment Due Dates and Interest.** Should the Owner fail to pay a proper invoice within thirty calendar days of receipt by the Owner of the certification of the Application for Payment by the Design Professional., the Contractor shall notify the Owner in writing by certified or statutory mail and shall reference O.C.G.A § 13-4-4 (mutual departure from contract terms) . If the Owner fails to pay within five business days of receipt of the notice, the

Contractor shall receive, in addition to the sum named in the proper invoice, interest thereon at the rate of one half percent per month on the unpaid balance as may be due.

4.1.7 Payments for Change Order Work. Payments will not be made for any changes in the Work until a Change Order has been executed.

4.1.8 Contractor's Warranty on Applications for Payment. The Contractor hereby warrants to the Owner that, subject to Owner making payments to the Contractor in accordance with the Contract Documents:

4.1.8.1 Title to Work. Title to Work, materials and equipment covered by an approved Application for Payment will pass to the Owner either by incorporation in construction or upon receipt of payment by the Contractor, whichever shall occur first;

4.1.8.2 No Liens. Work, materials and equipment covered by any previously approved Applications for Payment are free and clear of liens, claims, security interests or encumbrances, hereinafter referred to as "liens";

4.1.8.3 No Encumbrance. No Work, materials or equipment covered by an approved Application for Payment will have been acquired by the Contractor, or any other person performing work at the Site or furnishing materials or equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

PART 2 – PAYMENTS WITHHELD

4.2.1 Payments Withheld.

4.2.1.1 Payments Withheld or Nullified. The Design Professional or the Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary to protect the Owner from loss because of the following conditions:

- (a) Defective work not remedied.
- (b) Claims or liens filed
- (c) Failure of the Contractor to make payments properly to Subcontractor or Supplier for materials or labor.
- (d) A reasonable doubt that the Contract can be completed for the balance then unpaid.
- (e) Damage to a Separate Contractor or to the Owner or a third party.
- (f) Failure to maintain a rate of progress consistent with the Milestones.
- (g) Failure to supply enough skilled workers or proper materials.
- (h) Court-ordered retention.
- (i) State Tax Forms not on file.
- (j) Breach of this Contract

4.2.1.2 Withheld Payments Restored. When the conditions above are remedied, payment shall be made for amounts withheld because of them.

PART 3 - LIENS

- 4.3.1 Public Property Not Subject to Lien.** The Contractor acknowledges that, pursuant to law, the Site is public property of the Board of Public Education for the City of Savannah and the County of Chatham and is not subject to lien or levy. The Contractor will notify the Owner of any liens or levies against the Site of which it becomes aware. The Contractor shall cooperate with the Owner and shall use its best efforts to assist in securing the release of any liens or levies of which it becomes aware.
- 4.3.2 Notice of Commencement.** A Notice of Commencement shall be filed by the Contractor with the Clerk of the Superior Court in the county in which the Project is located, pursuant to O.C.G.A. Title 36 Chapter 91.
- 4.3.3 Release of Liens.** Neither any part of the retainage nor the Final Payment shall become due until the Contractor, if required, shall deliver to the Owner a complete release of all liens or conditional release of lien upon payment or claims arising out of this contract in accordance with the Owner's specimen form (a copy of which will be provided to any bidder on request), or receipts in full in place thereof and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all labor and materials for which a lien or claim could be filed; but the Contractor may, if any Subcontractor or claimant refuses to provide a release, furnish a bond satisfactory to the Owner to indemnify the Owner against any lien or claim. If any lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such lien or claim, including all costs and reasonable attorney's fees.

SECTION 5 – CONTRACT ADJUSTMENTS, DISPUTES, AND TERMINATION

PART 1 – OWNER’S RIGHT TO SUSPEND OR STOP WORK

- 5.1.1 Owner’s Right to Suspend Work.** The Owner reserves the right, with or without the concurrence of the Design Professional, to suspend the Work at any time or from time to time at the Owner's sole discretion, upon giving Contractor five days advanced written notice thereof. If the Owner exercises this right and then resumes the Work covered hereby, Contractor shall be entitled upon timely claim to a Change Order for payment by Owner of any reasonable Actual Costs actually incurred by Contractor in connection with the suspension and resumption of the Work, as well as an extension in the time for performance of the Work to the extent Contractor is delayed. The Design Professional shall determine the time, which shall be binding upon both Owner and Contractor, as set forth in Section 3, Part 3.
- 5.1.2 Owner’s Right to Stop Work.** The Owner reserves the right, for itself and for any designated Construction Inspector retained by Owner, upon observation of apparent nonconforming Work, to immediately stop the affected Work. If the Work is later determined by the Design Professional to be in fact conforming Work, then Contractor shall be entitled upon timely claim to a Change Order for payment by Owner of any reasonable Actual Costs actually incurred by Contractor in connection with the stop Work order and resumption of the Work, as well as an extension in the time for performance of the Work to the extent Contractor is delayed by Owner's stop Work order. The Design Professional shall determine the time, which shall be binding upon both Owner and Contractor, as set forth in Section 3, Part 3.
- 5.1.3 Owner’s Rights Independent from Rights and Duty of the Design Professional.** The rights granted to Owner under this Article are independent of the duty and obligation of the Design Professional to stop the Work for non-compliant work or to issue Notices of Non-Compliant Work.

PART 2 – CONTRACT ADJUSTMENTS AND DISPUTES

5.2.1 General Provisions.

5.2.1.1 No Arbitration. There is no agreement to arbitrate any dispute arising under the Contract Documents. Any and all references to arbitration in any of the Contract Documents, including without limitation any exhibits, attachments or references, are hereby deleted and rendered null and void.

5.2.1.2 Continuation of the Work. Unless otherwise agreed in writing, and notwithstanding any other rights or obligations of either of the parties under any Contract Documents or Contracts, the Contractor must carry on with the performance of its contract services and the Work, including all duties and obligations hereunder, during the pendency of any Claim, dispute, and other matter in question or during any alternative dispute resolution proceeding, court proceeding, or other proceeding to resolve any Claim, dispute, and other matter in question, and the Owner will continue to make payments in accordance with the Contract Documents. The Owner, however, is under no obligation to make payments on or against such Claims, disputes, and other matters in question during the time required to resolve such Claims, disputes, and other matters in question.

5.2.2 General Claims for Contract Adjustments and Disputes.

5.2.2.1 General Claims of the Contractor. Should the Contractor suffer any injury or damage to person or property that Contractor reasonably believes a legal basis exists for liability on the part of the Owner, Program manager, or Design Professional, and that should result in an adjustment in the Cost of the Work or the Contract Time, such claim shall be made in writing in the form of a Request for Change Order to the Design Professional and copy the owner within fourteen days after such injury or damage is or has been observed. Any and all claims not made within said fourteen days are barred, waived, released, and discharged. The decision of the Design Professional is final and binding on the Contractor unless the Contractor protests the decision of the Design Professional and files a Statement of General Claim as set forth below.

5.2.2.2 Processing of General Claims. All claims must be filed and processed as a request for Change Order and subject to the processes and limitations set forth in Section 3 Part 2. If the requested Change Order is rejected, a protest may be made as set forth in Paragraph 5.2.2.3 below.

5.2.2.3 Protest; Statement of General Claim; Time of Submission. No protest of a claim decision of the Design Professional by the Contractor, whether said claim shall be accrued or prospective, shall be valid unless a "Statement of Claim" in writing and accompanied by vouchers and other supporting data shall have been filed with the Owner's Representative, or if there is no Owner's Representative, with the Owner by the Contractor not later than thirty days after the Design Professional's decision to reject the claim, time being of the essence. The "Statement of Claim" shall contain a concise and clear recital of the grounds and the legal basis upon which the claim is asserted, including a designation of the applicable provisions of the Contract Documents. The Statement of Claim shall indicate the dollar amount of the claim and the number of days of adjustment of the Contract Time. The Owner and Contractor shall endeavor to resolve the dispute in accordance with Article 5.2.3 below.

5.2.2.4 Claims by Subcontractors. No claim or protest shall be made by the Contractor solely on the ground that a Subcontractor or Supplier, has made a claim or protest against the Contractor. The Contractor must maintain its claim or protest against the Owner based upon the provisions of the Contract Documents and independent of any right the Subcontractor or Supplier has against the Contractor. The Contractor shall defend the Owner from any claims or protests submitted by a Subcontractor or Supplier asserted in violation of, or contrary to any provision of the Contract Documents.

5.2.3 Dispute Resolution.

5.2.3.1 Initial Dispute Resolution. If a dispute arises out of or relates to this Contract or its breach, the parties shall endeavor to settle the dispute first through direct discussions between the parties' representatives. If the dispute is not settled by the parties' representatives, the parties may submit the dispute to mediation in accordance with Paragraph 5.2.3.2.

5.2.3.2 Mediation. If the dispute cannot be settled pursuant to Paragraph 5.2.3.1, the parties may elect to submit the dispute to mediation. The parties agree to conclude such mediation within sixty days of electing mediation. The parties shall select a mutually agreeable mediator and shall share the cost of the mediator equally. Either party may terminate the mediation at any time after the first session, but the decision to terminate shall be communicated directly by the party's representative to the other party's representative and the mediator.

5.2.3.3 Multiparty Proceeding. All parties necessary to resolve a claim shall be parties to the same dispute resolution proceeding and shall share the costs equally. Appropriate provisions shall be included in all other contracts relating to the Work to provide for the consolidation of such dispute resolution procedures.

5.2.3.4 No Litigation and Forum Selection. No litigation may be commenced without first following the process in this Article. Any claim or controversy arising out of or relating to this Agreement or any breach thereof shall be brought, maintained and pursued only in a state court of competent subject matter jurisdiction located in Georgia's Eastern Judicial Circuit in and for Chatham County, Georgia. The Parties hereby agree in advance to consent to personal jurisdiction in any state court of competent subject matter jurisdiction in Chatham County, Georgia, and agree in advance to waive the defense of personal jurisdiction in any action arising out of or relating to this Agreement or any breach thereof that is brought in Chatham County, Georgia. The Parties further agree that any state court of competent subject matter jurisdiction in Chatham County, Georgia, will be a proper venue for any action arising out of or relating to this Agreement or any breach thereof and agree in advance to waive the defense of improper venue in any such suit.

5.2.4 Certain Claims Excluded from General Claims.

5.2.4.1 All claims for Compensation for Delay under Article 3.3.8.

5.2.4.2 All claims for changes to the Work under Article 3.2.12, Article 3.2.13, and Article 3.2.15.

PART 3 - TERMINATION

5.3.1 Owner's Right to Terminate Contract for Convenience.

5.3.1.1 Termination for Convenience. The Owner may at any time, and for any reason or without any reason or cause, terminate this Contract by written notice to the Contractor specifying the termination date, without cause and irrespective of whether or not Contractor is in default of any of its obligations hereunder. The effective date of termination shall not be earlier than seven days from the date of confirmed receipt of the written notice.

5.3.1.1.1 The Contractor shall: (i) stop the Services or the Work (as applicable); (ii) place no further orders or Subcontracts for materials, labor, services or equipment; and (iii) terminate all material and equipment orders and Subcontracts to the extent terminable (unless otherwise directed by Owner in writing) and advise Owner of all materials, equipment and other items which cannot be canceled or which are already delivered and allow Owner to participate in the salvage or disposition thereof.

5.3.1.1.2 If Owner terminates this Contract pursuant to this Section prior to the commencement of the Construction Stage, Contractor shall, as soon as practical after receiving notice of termination under Section 5.3.1.1, submit to Owner an Application for Payment for all services performed through the date of receipt of the notice of termination, for which payment has not been previously made pursuant to the terms of this Contract.

5.3.1.1.3 If Owner terminates this Contract pursuant to this Section after commencement of the Construction Stage, Contractor shall, as soon as practical after receiving notice of termination under Section 5.3.1.1, submit to Owner an Application for Payment showing all of the costs incurred by Contractor in the performance of the Work terminated through the date of receipt of the notice of termination. The phrase "costs incurred by Contractor in the performance of the Work terminated" as used herein shall be deemed to include:

- (i) Subcontract costs of Work completed;
- (ii) Cancellation fees in regard to equipment and materials ordered;
- (iii) Cost of all materials and equipment ordered which cannot be cancelled; less actual proceeds received upon the disposition thereof;
- (iv) Field Work accomplished;
- (v) Permit, engineering, bond and inspection fees;
- (vi) All other direct costs actually incurred by Contractor that can be demonstrated by invoice, canceled check, or other appropriate documentation;
- (vii) General Conditions costs and profit incurred through the date of termination.
- (viii) Job Site and termination costs for ten business days after the date of termination.

5.3.1.2, Acceptance of Payment. Acceptance of payment by the Contractor shall constitute a waiver of all further claims by Contractor against Owner under the Contract, and shall be Contractor's exclusive remedy for termination of the Contract. Notwithstanding anything to the contrary contained in the Contract Documents, in no event shall Contractor be entitled to any payment on account of accident or lost profits or consequential damages in connection with any termination of the Contract, or otherwise in connection with the Contract.

5.3.1.3 Condition Precedent to Payment. As a condition precedent to receiving the payment set forth in this Article 5.3.1, Contractor shall deliver to the Owner all papers, documents, assignments and agreements relating to the Project, in particular the Contract Documents (including ownership and copyright thereof) as set forth in Article 1.1.7, Paragraphs 1.1.9.18 and 2.2.1.8.

5.3.1.4 Assignment of Rights Subcontracts.

5.3.1.4.1 Assignment. If requested, Contractor shall assign to the Owner or to an entity of Owner's choice any or all of Contractor's contractual rights in respect thereof, so that the assignee shall be fully vested with all rights and benefits of Contractor under such papers, documents and agreements, together with releases and waivers of lien in the same manner as would be required upon Final Completion. The Owner may also request the assignment from Contractor to Owner or to the entity of Owner's choice of any or all Subcontractors and Supplier agreements entered into by Contractor and in that event the assignee shall be solely obligated to the Subcontractors and Suppliers under such contracts or agreements for all sums payable thereunder and not previously paid by the Owner to Contractor.

5.3.1.4.2 Cessation of Entitlement. Upon the Contractor's assignment of agreements, contracts, subcontracts and/or Owner's payment of monies due Contractor as provided in Subparagraph 5.3.1.4.1 above, Contractor shall be entitled to no further compensation of any kind from Owner and shall have no further obligation with regard to the assigned agreements, contracts, or subcontracts .

5.3.2 **Owner's Right to Declare Default and/or Terminate Contract for Cause.**

5.3.2.1 Termination for Cause. In the event that any provisions of this Contract are violated by the Contractor, through its own forces or by any of its Subcontractors, the Owner may serve written notice upon the Contractor and the surety of the Owner's intention to declare default and terminate the Contractor. Unless within ten days after the serving of such notice upon the Contractor, such violation or delay shall cease and satisfactory arrangement of correction be made, the Contractor shall, upon the expiration of said ten days, be in default. Such notices shall outline the reasons for such intention to terminate the contract. In the event of any such default, the Owner shall immediately serve notice thereof upon the surety and the Contractor, and the Owner shall demand that the surety perform in accordance with its bond. If the surety fails to exercise its election under the bond or does not commence performance thereof within the time required by the bond, the Owner may take over the Work and prosecute the same to completion for the account of and at the expense of the Contractor. The Contractor and its surety shall be liable to the Owner for any excess cost to the Owner. The Owner may take possession of and utilize in completing the Work such materials, appliances, and plant as may be on the Site and necessary thereto.

5.3.2.2 Grounds for Issuance of Notice of Declaration of Default. It shall be a sufficient ground for the issuance of a notice of declaration of default that the Contractor has been unfaithful or delinquent in the performance of the Contract or any part of it in any respect. The Design Professional does not have authority to declare the Contractor in default.

5.3.2.2.1 Non-Compliant Work. Without limitation of the foregoing and without subtracting from any right or defense of the Owner under other provisions of the Contract Documents, the Contractor acknowledges and agrees that it is grounds for issuance of a notice of declaration of default under the performance bond if the Contractor shall have neglected or failed for any reason to remedy a breach of a Notice of Non-Compliant Work within thirty days after the Owner shall have given written notice of said breach to the Contractor.

5.3.2.2.2 Failure to Prosecute the Work. If the Contractor refuses or fails, except in cases for which extensions of time are provided, to supply enough properly skilled workmen or proper materials, or if it fails to make proper payment to Subcontractors for materials or labor, or if it fails to diligently prosecute the Work in accordance with the Contract Documents, then the Owner may, without prejudice to any right or remedy and after giving the Contractor and its Surety, ten days' written notice of the Owner's Intent to Declare Default, during which period the Contractor fails to cure or fails to commence and thereafter diligently prosecute Work necessary to cure the violation, declare the Contractor to be in default.

5.3.2.2.3 Other Failures of the Contractor. If Contractor, without limitation, makes a general assignment for the benefit of its creditors, or if a receiver is appointed on account of its insolvency, or if it persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction over the Project, or if it otherwise is guilty of a violation of any provision of this Contract, then the Owner may, without prejudice to any right or remedy and after giving the Contractor and its Surety, if any, ten days written notice of the Owner's Intent to Declare Default, during which period the Contractor fails to cure or fails to commence and thereafter diligently prosecute Work necessary to cure the violation, declare the Contractor to be in default.

5.3.2.3 Owner's Right to Prosecute the Work. Time being of the essence, if the Contractor shall be declared in default, both the Contractor and the Surety agree that the Owner may, after giving the Contractor and Surety the required notice and time if any is required, without prejudice to any other remedy and without invalidating the performance bond, make good such deficiencies and may deduct the cost thereof from payment due the Contractor or, at the Owner's option and without prejudice to the Owner's rights against the Contractor and Surety, the Owner may terminate the Contractor and take possession of the Site and of all materials, equipment, tools and construction equipment and machinery thereon owned by the Contractor and finish the Work by whatever method the Owner shall deem expedient.

5.3.2.4 Effect of Later Determination. In the event the parties agree or a court of competent jurisdiction determines (or the parties agree to settle with a consent determination) that a default is wrongful or not the fault of the Contractor, the termination shall be considered to be a Termination for Convenience and the sole remedy available to the Contractor shall be the contractual treatment of the termination pursuant to Article 5.3.1 above and without any other damages or relief.

5.3.3 Contractor's Right to Terminate.

5.3.3.1 Contractor's Right to Stop Work. The Contractor may, upon seven days written notice to the Owner and the Design Professional, stop Work without penalty for the following reasons:

5.3.3.1.1 Order of Court or Superior Public Authority. If any court or other superior public authority issues an order that affects the Work and the order results from no act or fault of the Contractor, the Contractor may stop the affected Work. In addition, the Contractor may stop Work as a result of an act of government, such as a declaration of a national emergency, making critical materials unavailable.

5.3.3.1.2 Failure to issue Certificate of Payment. Work may be stopped if the Design Professional should fail to certify any Application for Payment within fourteen days after said certification is due from the Design Professional. This ground terminates upon any payment of the Application for Payment by the Owner.

5.3.3.2 Contractor's Right to Terminate Contract.

5.3.3.2.1 Contractor's Right to Terminate for Nonpayment. If the Owner fails to pay the Contractor when payment is due, the Contractor must give written notice of the Contractor's intention to terminate this Contract. If the Owner fails to provide the Contractor payment or written notice of a dispute as to the amount sought by the Contractor within thirty days after receipt of the Contractor's written notice, the Contractor may terminate this Contract. Upon such termination the Owner will pay the Contractor for the Work properly executed to date, and, upon timely claim therefore, for any proven loss sustained or cost incurred upon any materials, equipment, tools, construction equipment and machinery, and cancellation charges on existing obligations of the Contractor.

5.3.3.2.2 Contractor's Right to Terminate after Stopping Work. After stopping its Work in accordance with Paragraph 5.3.3.1 above, the Contractor may, upon thirty days written notice to the Owner and the Design Professional, terminate this Contract and recover from the Owner payment for all Work executed and any proven loss sustained or incurred upon any plant or any materials, equipment, tools, construction equipment and machinery, and cancellation charges on existing obligations of the Contractor, if the grounds for stopping the Work are not removed.

- 5.3.4 Limitation on Payments.** For terminations pursuant to Article 5.3.2 and 5.3.3, the Contract Sum shall be deemed earned only to the extent of an amount that bears to the total Contract Sum the same ratio that the Work in place at the time of termination bears to the total Work, as reasonably determined by the Design Professional, and approved by the Owner.
- 5.3.5 Termination by Owner for Abandonment by Contractor.** Both the Contractor and the Surety agree that, after fourteen calendar days' written notice to the Contractor, the Owner may terminate the Contractor if the Contractor abandons the Project. If such termination occurs, the Owner shall credit the Contractor for Work satisfactorily completed, less any costs and liquidated damages the Owner suffers in correcting the Work, re-contracting and starting-up a replacement contractor, and completing the Project, including all warranties.
- 5.3.6 Notices of Termination.** Notwithstanding any other provision of this Contract, no party may terminate this Contract, regardless of reason, unless the terminating party shall first issue a written Notice of Termination or of Default to the terminated or defaulted party by Statutory Mail or Certified Mail, Return Receipt Requested.

SECTION 6 - PROJECT COMPLETION

PART 1 – MATERIAL COMPLETION

6.1.1 Prerequisites.

6.1.1.1 Completion of the Work. The Contractor must obtain Material Completion as defined in Section 6.1.2 below prior to any occupancy of the Project.

6.1.1.2 Submission of Final Documents. All Final Documents as defined herein are due at Material Completion.

6.1.1.3 Operation of Building Systems. All building systems specified in Section 6.2.1.2.7 are to be started up and tested to confirm operation. In accomplishing this certification, the Contractor shall obtain the manufacturer's certificates and coordinate the initial start-up and testing of building systems. The Contractor expressly agrees that the manufacturers are solely the agents of the Contractor. In all cases where the equipment of two or more manufacturers ties in and functions together, the Contractor shall require the field representatives to perform simultaneously the initial start-up, the testing, and the placing of their equipment into operation. "Start-up" is defined as putting the equipment into action. "Testing" is defined as performing such testing as is stipulated in the Contract Documents to be performed. "Placing into operation" is defined as operating the equipment for a sufficient period of time for the determination to be made that it is performing properly. All building commissioning activities should be completed, with the exception of those designated as "Permitted Incomplete Work."

6.1.1.4 Operation and Maintenance Training. Prior to Material Completion, the Contractor shall furnish advance copies of proper written instructions to the Owner on operation and maintenance of all mechanical, electrical and other operating systems and equipment. The Contractor shall provide training in the operation and maintenance of all mechanical, electrical and other operating systems and equipment in the presence of the Design Professional to Owner and shall give notice in writing to the Design Professional and Owner at least fifteen (15) days prior to the date it is proposed for the training. The presence of a Commissioning Authority shall not diminish the responsibility of the Contractor to perform and administer this Operation and Maintenance Training.

6.1.1.5 Operation and Maintenance Manuals, Brochures and Data. At least seven (7) days prior to the proposed date of Inspection for Material Completion, the Contractor shall furnish and deliver to the Design Professional complete manuals, brochures and data as prepared and published by the manufacturers covering details of operation and maintenance for all items equipment, systems or apparatus installed which require operation or maintenance after occupancy. The Design Professional will review this submittal for compliance and deliver documents to the Owner at Material Completion. The review services of the Design Professional may be supplemented or performed by a Commissioning Agent if the Owner directs.

6.1.1.6 Test and Balance Report. A copy of the initial test and balance report on the heating, ventilating and air conditioning system shall be submitted to the Design Professional at least seven (7) days prior to the proposed date of Inspection for Material Completion. Two additional Test and Balance Reports are required after Material Completion (See Section 6.4.7).

6.1.2 Material Completion.

6.1.2.1 Material Completion Defined. Material Completion is when the Work or designated portion thereof is complete in accordance with the Contract Documents so that the Owner can occupy and utilize the Work for its intended use. Material Completion shall include issuance of any required Health Department inspections and any necessary certificates to operate, certificate of occupancy, as well as complete operation of all applicable building systems including, but not limited to, mechanical, electrical, plumbing, fire protection, fire alarm, security, elevators, life safety, and accessibility. Material Completion occurs when the Work is complete, except for Minor Items or Permitted Incomplete Work (Scheduled Warranty Items) or Warranty Complaint Items (see Article 6.6.2), and a Certificate of Material Completion is obtained.

6.1.2.1.1 Material Completion and Occupancy Date. The date designated in the Contract for Material Completion to be achieved.

6.1.2.1.2 Minor Item Defined. A Minor Item is a portion or element of the Work—

- (a) that can be totally complete within thirty days; and
- (b) that can be completed while the Owner occupies the Work without impeding or interfering with either the Owner's use and occupation of the Work or the Contractor's ability to complete the Minor Item; and
- (c) that will not interfere with the complete use and enjoyment of the project by the Owner.

6.1.2.1.3 Permitted Incomplete Work (Scheduled Warranty Items) Defined. Permitted Incomplete Work (Scheduled Warranty Items) is work that is incomplete through no fault of the Contractor, including, but not limited to, HVAC seasonal test and balance, seasonal landscaping, or failure of Separate Contractors to complete their work.

6.1.2.2 Material Completion Date. Material Completion shall be achieved on or before the Material Completion Date specified in the Contract as amended by Change Orders. Failure by the Contractor to achieve Material Completion by not later than the Material Completion and Occupancy Date, as amended, shall be sufficient cause for the assessment of Liquidated Damages, as well as the assertion of any other rights or remedies allowed by law or by the contract.

6.1.2.3 No Partial Occupancy; Exceptions. No partial occupancy of the Project or the Work shall be permitted, unless expressly addressed in the Supplementary General Requirements or elected by the Owner via a properly executed Change Order. In the event the Owner otherwise elects to have a partial occupancy of the Project after execution of this agreement, which decision shall be at the sole discretion of the Owner, a Change Order will be executed. A partial occupancy will follow all the requirements for Material Completion for the specific area of the Project that is to be accepted and turned over to Owner.

6.1.3 Effect of Achieving Material Completion. Upon the date when Material Completion is actually achieved, the following matters are conclusively determined:

6.1.3.1 Occupancy of the Work. The Owner may immediately occupy the Work without restriction.

6.1.3.2 Warranty Periods. All warranties begin to run from the date Material Completion is achieved.

6.1.3.3 Utilities. All utilities become the responsibility of the Owner.

6.1.3.4 Insurance. The Owner is responsible for all insurance for the Work. Contractor must maintain its insurance for all its activities.

6.1.3.5 Liquidated Damages. The Liquidated Damages daily rate is reduced to zero.

6.1.3.6 Payment for Material Completion. The Contractor may request payment of the remaining contract balance, including retainage, less the amounts credited the Owner or incurred as Liquidated Damages, and less the amounts withheld for the punchlist by reason of Minor Items or Permitted Incomplete Work (Scheduled Warranty Items). See (Paragraph 6.6.2.2).

PART 2 – DOCUMENTS AND DELIVERABLES

6.2.1 Final Documents Due at Material Completion.

6.2.1.1 Final Documents Defined. Final Documents consist of all certificates, warranties, guarantees, manuals, instructions and documents as required by the Contract Documents.

6.2.1.2 Schedule of Delivery of Final Documents. All Final Documents are due at Material Completion. Certain documents require prior approval from the Design Professional and other documents and deliverables require coordination with the Owner. The Contractor shall coordinate the assemblage, approval and delivery of Final Documents to correlate with the scheduled Material Completion Date and completion of the Construction Professional's Checklist for Material Completion (Section 7 Forms). These documents and deliverables include but are not limited to the following:

6.2.1.2.1 Affidavits.

(a) A non-influence affidavit in the exact form as shown in Section 7, Forms.

(b) A statutory affidavit in the exact form as shown in Section 7, Forms.

6.2.1.2.2 Bonds.

(a) A Five Year Bond of Roofs and Walls as shown in Section 7, Forms, written by a surety authorized to do business in the State of Georgia and in the penal sum of the actual cost of the walls, wall cladding, wall insulation, roof, insulation and roof deck, but not less than the amount shown in the approved initial breakdown for roof and wall systems. The effective date of the Bond shall be the Material Completion Date.

(b) Any Bonds to Discharge Claim issued to Trade Contractors and suppliers as shown in Section 7, Forms.

6.2.1.2.3 Written Guarantees and Warranties. All written guarantees or warranties as called for in the Specifications. Each written guarantee or warranty shall specify the term and contact information for enforcement and shall be in such form as to permit direct enforcement by the Owner against any Trade Contractor, subcontractor, materialmen, or manufacturer related to the guarantee. The effective date of all warranties and guarantees shall be the Material Completion Date.

6.2.1.2.4 Marked-up Construction Documents. The Contractor shall provide a complete set of Marked-up Construction Documents to the Design Professional, which set shall reflect all changes caused by addenda, field changes, Change Orders, or observed changes by the Contractor or subcontractor(s) for the purpose of the Design Professional's issuance of Record Documents to the Owner.

6.2.1.2.5 Operation and Maintenance Manuals. Receipts for transmittal of Operation and Maintenance Manuals, Brochures and Data to the Design Professional (or Commissioning Agent) as required by Section 6.1.1.5.

6.2.1.2.6 Certification of Building Systems Operations. A certification by the Contractor that all building systems specified in Section 6.2.1.2.7 are operational. The Contractor expressly agrees that the manufacturers are solely the agents of the Contractor. In accomplishing this certification, the Contractor shall obtain the manufacturer's certificates and coordinate the initial start-up and testing of building systems.

6.2.1.2.7 Certificates of Manufacturers for Major Components. For elevators, moving walks, dumbwaiters, escalators, lifts, major components of air conditioning systems (i.e., cooling towers, compressors, condensers, absorption units, chiller units, fan coil units, air handling units, boilers, base mounted pumps, and temperature controls); major components of heating systems (i.e., boilers, base mounted pumps, air handling units, unit ventilators, fan coil units, temperature controls, and boiler chemical feed systems); major components of plumbing systems (i.e., boilers, base mounted pumps, sewage pumps and water treatment systems) and incinerator systems; start-up, testing, and placing into operation shall be performed by the field representative(s) of the

manufacturer(s), and certificate(s) of the manufacturer(s) shall be filed with the Owner on the letterhead(s) of the manufacturer(s) in which the manufacturer(s) certifies or certify that "the equipment has been installed in strict compliance with the recommendations of the manufacturer(s) and is operating properly," in the format shown in Section 7, Forms. The manufacturer shall list in the certificate the item or items furnished to the job and the date, name, or other positive means of identifying any supplementary documents containing the recommendations of the manufacturer, with a copy of each of the supplementary documents attached to the certificate.

6.2.1.2.8 Certificates of Manufacturers for Products. Where required by the specifications, Certificates of Manufacturers for products and other materials (not Major Components) shall be provided using the manufacturer's certificate format.

6.2.1.2.9 Final Certification of Costs. For proper capital asset reporting of the Project, the Contractor shall submit his Final Certification of Costs in the format set forth in Section 7, Forms.

6.2.1.3 Presentation of Final Documents. Final Documents will be arranged by category and delivered at or before Material Completion in a format suitable for the presentation, use and retention of the documents. Three (3) sets of each document are required with originals in one set of documents.

6.2.1.3.1 Warranties, Guarantees, and Manufacturer's Certificates shall be in a separate three ring binder(s) with summary list of contents. After approval, Owner shall retain these sets of documents.

6.2.1.3.2 Affidavits and Bonds shall be presented in a separate three ring binder. After approval, Owner shall retain these sets of documents.

6.2.1.3.2 Operation and Maintenance Manuals shall be in three ring binders or manufacturer's binder. If documents are provided on electronic format (CD/DVD), one printed copy is required plus two (2) disks. After approval Owner shall retain these sets of documents.

6.2.2 Deliverables

6.2.2.1 Keys. Keys with tags attached indicating number and/or description of door or room each key is intended to fit attached to each key shall be delivered to the Owner. Contractor shall prepare and furnish with the keys an itemized key schedule in quintuplicate listing the door or room number and/or description, serial number of key, and number of keys being delivered for each door or lock.

6.2.2.2 Attic Stock and Loose Equipment. If the Contract Documents provide for the furnishing of any loose equipment or furnishings or attic stock of materials, the Contractor shall make arrangements to locate such material in a secure location at the Project site to facilitate inspection by the Design Professional and Owner and transfer to the Owner at Material Completion.

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PART 3 – INSPECTIONS FOR COMPLETION OF THE WORK

6.3.1 General Responsibility of the Contractor for Inspection. The Contractor acknowledges and agrees that it has an indivisible, non-delegable, and nontransferable contractual obligation to the Owner to make its own inspections of the Work at all stages of construction; and it shall supervise and superintend performance of the Contract in such manner as to enable it to confirm and corroborate at all times that all work has been executed strictly in accordance with the methods and materials designated in the Contract Documents. The Contractor's inspections are also for the purpose of permitting the Contractor to accurately represent that (a) its certifications on Applications for Payment are true and correct and (b) its notices of readiness for inspections are true and correct. Accordingly, the Contractor acknowledges and agrees that it may not defend or excuse any deviation from the Contract Documents on the ground (a) that another person or party failed to bring the deviation to its attention, or (b) that any Subcontractor is at fault.

6.3.2 Notice of Readiness for Inspection for Material Completion.

6.3.2.1 Preparation of Initial Punchlist. Prior to the Material Completion and Occupancy Date, as amended, the Contractor shall correct all non-compliant or incomplete work. The Contractor shall then prepare an initial punchlist itemizing to the best of the Contractor's knowledge all Minor Items and Permitted Incomplete Work (Scheduled Warranty Items) (as defined in Section 6, Part 1) and provide a copy of the initial punchlist to the Design Professional and Owner. The Contractor is encouraged to consult with the Design Professional prior to finalizing the initial punchlist, in particular in arriving at consensus for Minor Items and Permitted Incomplete Work (Scheduled Warranty Items).

6.3.2.2 Contractor's Notice of Readiness for Inspection for Material Completion. After or simultaneously with the provision of the initial punchlist, the Contractor shall give the Design Professional and Owner written Notice of Readiness for Inspection for Material Completion in the following words:

"The work on the Contract for the [SHOW NAME OF PROJECT AS IT APPEARS IN THE CONTRACT] having been materially completed, it is requested that an Inspection for Material Completion be made promptly by the Design Professional in accordance with Section 6 of the General Requirements. The Initial Punchlist, to the best of the Contractor's knowledge, is attached hereto."

6.3.2.3 No Inspection without Notice. No Inspection for Material Completion shall be made until such time as the Design Professional and Owner have received notice in the form indicated above. In the event the Contractor shall have issued the Contractor's Notice of Readiness for Inspection for Material Completion prematurely, the Contractor shall be liable for the damage resulting therefrom, including but not limited to the salaries, professional fees, travel expenses, and living expenses of the persons or parties inconvenienced thereby.

6.3.3 Conducting the Inspection for Material Completion. The Design Professional shall conduct the Inspection for Material Completion. The Design Professional shall confirm the Initial Punch List and shall add or delete such Minor Items or Permitted Incomplete Work as shall be appropriate. Where appropriate, the Design Professional shall assign completion dates for the items of Permitted Incomplete Work. At the completion of the Inspection for Material Completion, the resulting punch list shall become the "Final Punch List" and also documented as a final "Notice of Non-Compliance".

6.3.4 Executing Material Completion Certificates by the Owner. When the Design Professional completes the Final Punch List (Five (5) days allowed), the Owner, Contractor, Design Professional and Program Manager, if applicable, are prepared to execute the Material Completion Certificates (See Section 7 Forms) for occupancy. The Owner administers the execution and distribution of the Material Completion certificates on the Material Completion date.

6.3.4.1 Construction Professional's Material Completion Checklist. This form is a recital of submittals and requirements for Material Completion provided as a guide to this Section 6 Project Completion.

6.3.4.2 Design Professional's Certificate of Material Completion. This certificate confirms inspection of the work by the Design Professional and representation as to Material Completion; establishes the Final Punchlist (Notice of Non-Compliance); and, recommends the amount to be withheld as contingency.

6.3.5 Notification of Owner of Site Visits by the Contractor or Subcontractors. Following the issuance of a Certificate of Material Completion, the Contractor or its Subcontractors shall not visit the Site without first giving notice to the Owner.

6.3.6 Effect of Failure to Achieve Material Completion. Should Material Completion not be achieved by the Material Completion Date, as amended, the following matters are conclusively determined:

6.3.6.1 Breach of Covenant of Time. As time is of the essence in the completion of the Work, the Contractor is in breach of the covenant of time and is subject to default.

6.3.6.2 Liquidated Damages. Liquidated Damages at the specified daily rate in the Contract begin to accrue and are payable on the day immediately following the Material Completion Date.

6.3.6.3 Extension of Time. While it is anticipated that all applications of the Contractor for additional time or extensions of the Material Completion Date would have been filed and determined by the Owner prior to the Material Completion Date, the Contractor may, within 10 days after the Material Completion Date, file for any additional extensions of time pursuant to Section 3, Part 4, and the collection, but not the accrual, of Liquidated Damages shall be suspended until the Owner's decision. Should such a belated application be filed after the 10-day period, the Owner, in its sole discretion, may continue to collect Liquidated Damages. Should the Owner grant any applications for extension of time and the Material Completion Date, Liquidated Damages shall be adjusted accordingly.

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PART 4 – PAYMENT FOR MATERIAL COMPLETION AND FINAL PAYMENT

6.4.1 Payment for Material Completion. Payment for Material Completion shall be due ten days after receipt by the Owner of the Application for Payment upon achievement and certification of Material Completion, provided that Final Documents shall have been submitted. Payment shall be made by a check payable jointly to the Contractor and surety and shall be mailed to the surety.

6.4.2 Application for Payment for Material Completion.

6.4.2.1 Certification of Contractor. The Contractor shall certify, over his own signature, that the Work provided for by the Contract Documents has been materially completed under the terms and conditions thereof, and that the entire balance of the Contract, including retainage, is due and payable except for those amounts determined by the Design Professional to be withheld due to credits due to the Owner and Minor Items or Permitted Incomplete Work (Scheduled Warranty Items) pursuant to Article 6.6.2 below.

6.4.2.2 Supporting Documentation.

6.4.2.2.1 Financial Data. The Contractor shall submit evidence satisfactory to the Design Professional that all payrolls, material bills, and other indebtedness connected with the Work have been paid.

6.4.2.2.2 Affidavits and Bonds. The Contractor shall attach copies of the affidavits and bonds set forth in subparagraphs 6.4.2.2.1 and 2 above execute the payment certification and forward it directly to the Design Professional.

6.4.3 Release of Contractor's Retainage.

6.4.3.1 Establishment of List. At the completion of the Inspection for Material Completion, the Design Professional and Contractor, with the consent of the Owner, shall develop the Final Punchlist. The Design Professional will assign a value for each the Minor Items and Permitted Incomplete Work. (Scheduled Warranty Items)

6.4.3.2 Establishment of Amount of to be Withheld for Punchlist Items. In general, the amount to be withheld from the Payment for Material Completion and to be paid upon Final Completion shall be equal to two hundred percent of the Design Professional's value of completing the Work for each Minor Item or Permitted Incomplete Work (Scheduled Warranty Items). The following additional amounts to be withheld shall be applied where applicable.

6.4.3.2.1 Mechanical and HVAC Systems. Until such time as the Design Professional shall have certified that the heating and air conditioning system has been balanced under seasonable weather conditions, the amount withheld shall in no event be less than \$1,000.00 or one hundred percent of the value of remaining test and balance work, whichever is more.

6.4.3.2.2 Certificates. For each certificate required for major components, a sum of \$500.00 shall be withheld until such certificate shall have been filed with the Owner.

6.4.4 Effect of Payment for Material Completion and Release of Claims. Owner shall process the Application for Payment for Material Completion as expeditiously as possible in accordance with the certification of the Design Professional. Interest shall begin to accrue on the thirty-first day after receipt of the Application unless error is found in the Application or supporting documents, in which case interest begins to accrue on the thirty-first day after the error is corrected. Acceptance of Payment for Material Completion by the Contractor shall operate as a settlement, waiver, release, discharge, and payment in full of all claims against Owner of any nature arising out of the Work on this Contract through the date of the payment except as listed on the Statutory Affidavit and except for the work associated with Minor Items and Permitted Incomplete Work (Scheduled Warranty Items).

6.4.5 Notification of Readiness for Interim Inspection for Punchlist Completion. Not more than 30 days after Material Completion, and upon completion of the Final Punchlist (including all Minor Items and such Permitted Incomplete Items as are due to be completed), the Contractor shall give the Design Professional and Owner written notice requesting inspection for Final Completion in the following words:

“The work on the Contract for the [SHOW NAME OF PROJECT AS IT APPEARS IN THE CONTRACT] having been 100% completed, except for Permitted Incomplete Work not yet due to be completed, it is requested that an Inspection for Final Completion be made promptly by the Design Professional in accordance with Section 6 of the General Requirements.”

No Inspection for Interim Inspection for Punchlist Completion shall be made until such time as the Design Professional and Owner have received notice in the exact form indicated above. In the event the Contractor shall have issued the "Notice of Readiness for Interim Inspection for Punchlist Completion " prematurely, hereinafter referred to as a "false start," the Contractor shall be liable for the damage resulting from the false start including, but not limited to, the salaries, professional fees, and travel and living expenses of the persons or parties inconvenienced by the false start.

6.4.6 Notification of Readiness for Interim Inspection for Punchlist Completion. The Design Professional shall conduct the Interim Inspection for Punchlist Completion. The Design Professional shall confirm the Final Punch List has been completed including *all* Minor Items. Upon successful completion of the inspection, the Design Professional shall issue a Report of Interim Inspection for Punchlist Completion, noting any Permitted Incomplete Work which remains to be accomplished and the date by which it is to be completed. In the event *all* Permitted Incomplete Work has been completed at the time of this Interim Inspection, and the Design Professional so certifies, then this inspection shall be deemed an Inspection for Final Completion. In the event any Minor Item is determined to be incomplete, the Owner may give the fourteen (14) day notice of failure to complete the Work set forth in Section 6.2.3.

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PART 5 – Correction of Work After Material Completion

6.5.1 Non-Compliant or Defective Work.

6.5.1.1 Duty to Correct. Neither (1) the Design Professional's Certificate of Material Completion, (2) nor any decision of the Design Professional, (3) nor payment, (4) nor any provision in the Contract shall relieve the Contractor of responsibility for faulty materials, faulty workmanship, or omission of contract work, and he shall remedy any defects or supply any omissions resulting therefrom and pay for any damage to other work resulting therefrom.

6.5.1.2 Notice of Non-Compliant or Defective Work. The Owner shall give notice of observed defects or omissions with reasonable promptness. The notice shall be in the form of a Warranty Complaint letter, sent by United States mail or electronic transmission to the Contractor by the Owner; or, a Notice of Non-Compliant Work issued by the Design Professional (Section 3 Part 6).

6.5.2 Warranty Complaint Procedure.

6.5.2.1 Notice of Warranty/Guaranty Complaint Items. The Owner acknowledges that many malfunctions in building equipment and systems do not constitute Non-Compliant or defective Work. Accordingly, the Owner may provide notice of such apparent warranty work by a Warranty Complaint letter, sent by United States mail or electronic transmission to the Contractor. The letter should outline, in non-technical language, the complaint item. In emergency situations, the initial notification may be oral by the Owner to a person or office designated by the Contractor. The Contractor shall respond promptly to all such notices.

6.5.2.2 Duty to Correct. During the one year period of the warranty and guarantee any defects of material or workmanship that become apparent shall be the responsibility of the Contractor until and unless the Contractor can show abuse or design defect. The Contractor shall immediately correct all defects that become known during the one year period at no cost to the Owner unless notice is given to the Design Professional and Owner, prior to correcting the defect that the cause of the defect is the result of abuse or design deficiency.

6.5.2.2.1 Initial Response. When the Owner or the Design Professional notifies the Contractor of a defect, the Contractor will visit the site to review the complaint within five (5) days and shall promptly correct the Work. If the Contractor fails to respond within this time limit, the Owner may correct the defect or malfunction and charge the Contractor for the Work. The Contractor shall give notice in writing to the Owner when corrections have been completed.

6.5.2.2.2 Design Defect or User Abuse. If the Contractor believes that a design defect or user abuse has caused the malfunction or defect, he will notify the Design Professional and the Design Professional will issue a formal decision in his capacity as Design Professional and impartial interpreter of the conditions of the contract. If it is determined the complaint is not the responsibility of the Contractor, the Contractor shall be promptly paid for the cost of the corrective work.

6.5.2.2.3 Emergency Situations. If the condition is an emergency, this will be communicated to the Contractor with the request that no matter what he finds, corrections are to be accomplished immediately. The Contractor shall respond to the notice in emergency situations within twenty-four (24) hours. If the Contractor fails to respond within this time limit, the Owner may correct the defect and charge the Contractor for the Work. If it is determined the complaint is not the responsibility of the Contractor, the Contractor shall be promptly paid for the cost of the corrective work. The Contractor shall give notice in writing to the Owner when corrections have been completed.

6.5.3 Warranty and Guarantee.

6.5.3.1 Obligation for Correction of the Work. The Contractor shall within the space of time designated in Notices of Non-Compliant Work and without expense to the Owner, correct, remedy, replace, re-execute, supply omitted work, or remove from the premises all work designated as Non-Compliant by the Design Professional. The Contractor shall give prompt notice in writing to the Design Professional, with copy to the Owner, upon completion of the supplying of any omitted work or the correction of any work designated as Non-Compliant by the Design Professional. In the absence of said notice, it shall be and is presumed under this Contract that there has been no correction of the Non-Compliant work or supplying of omitted work. If the Contractor does not remove, make good the deficiency, correct, or remedy faulty work, or supply any omitted work within the space of time designated in Notices of Non-Compliant Work without expense to the

Owner, the Owner, after ten (10) days' notice in writing to the Contractor, may remove the work, correct the work, remedy the work or supply omitted work at the expense of the Contractor. In case of emergency involving health, safety of property, or safety of life the Owner may proceed at once with correction of the Work without waiving any rights of the Owner. Correction of defective work executed under the plans and specifications or supplying of omitted work whether or not covered by warranty of a subcontractor or materialmen, remains the primary, direct responsibility of the Contractor. The foregoing obligation of the Contractor shall remain in effect until the expiration of the statute of limitations covering the Work.

6.5.3.2 One Year Warranty and Guaranty. As additional security for the fulfillment of such obligation, but in no way limiting the same, the Contractor warrants and guarantees (1) that all work executed under the plans and specifications shall be free from defects of materials or workmanship for a period of one year from the date of the Certificate of Material Completion of the Design Professional, and (2) that for not less than one year from the date of the Certificate of Material Completion of the Design Professional, or for such greater space of time as may have been designated in the specifications, products of manufacturers shall be free from defects of materials and workmanship. Whenever written guaranties or warranties are called for, the Contractor shall furnish the aforesaid for such period of time as may be stipulated. The aforesaid instruments shall be in such form as to permit direct enforcement by the Owner against any subcontractor, materialmen, or manufacturer whose guaranty or warranty is called for. The Contractor further agrees that:

6.5.3.2.1 Jointly and Severally Liable. The Contractor is jointly and severally liable with such subcontractors, materialmen, or manufacturers; and

6.5.3.2.2 Agents of the Contractor. The said subcontractors, materialmen, or manufacturers are agents of the Contractor for purposes of performance under this section, and the Contractor, as principal, ratifies the warranties or guaranties of his aforesaid agents by the filing of the aforesaid instruments with the Owner. The Contractor as principal is liable for the acts or omissions of his agents.

6.5.3.2.3 Service of notice. Service of notice on the Contractor that there has been breach of any warranty or guaranty will be sufficient to invoke the terms of the instrument.

6.5.3.2.4 Bind Subcontractors, etc. The Contractor will bind his subcontractor, materialmen, and manufacturers to the terms of this section.

6.5.3.2.5 Warranties No Limitation. The calling for or the furnishing of written warranties shall in no way limit the contractual obligation of the Contractor to correct the work as set forth in this Part. The remedies stated in this section are in addition to the remedies otherwise available to the Owner, do not exclude such other remedies, and are without prejudice to any other remedies.

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PART 6 – FINAL COMPLETION

6.6.1 Final Completion.

6.6.1.1 Final Completion Defined. Final Completion is the completion of all Work, including completion of all Minor Items and Permitted Incomplete Work as defined in Section 6, Part 1. Final Completion shall be evidenced by the Design Professional's Certificate of Final Completion (Section 7 Forms).

6.6.1.2 When Final Completion Required. Final Completion shall be obtained not later than thirty (30) days after material completion. The Design Professional's Certificate of Final Completion shall not be issued until all Work is completed.

6.6.2 Effect of Achieving Final Completion. Upon the date when Final Completion is achieved and the Design Professional's Certificate of Final Completion is issued, the following matters are conclusively determined:

6.2.2.1 Project Completion. The Project and the Work are complete.

6.2.2.2 Payment for Final Completion. All amounts withheld from Payment for Material Completion and not previously paid to the Contractor or credited to the Owner, as set forth in Section 6, Part 4, are payable upon receipt of a final pay request from the Contractor.

6.6.3 Conducting the Inspection for Final Completion. In the event that Permitted Incomplete Work remains after the Interim Inspection for Punchlist Completion, at such time when all such Permitted Incomplete Work has been completed or scheduled for completion, the Contractor shall call for and the Design Professional shall schedule the Final Inspection with the Owner and Contractor. The Design Professional shall conduct the Inspection for Final Completion and shall confirm that all Permitted Incomplete and other Work has been completed. Upon successful completion of the inspection, the Design Professional shall issue the Certificate of Final Completion. Final Payment, including any remaining funds withheld may, upon an application for payment, be paid to the Contractor. Any Final Documents or updates to Final Documents not yet submitted must be submitted with the call for Final Inspection. In the event any item of Permitted Incomplete Work is determined to be incomplete and the date for its completion has passed, the Owner may give the fourteen (14) day notice of failure to complete the Work set forth in Section 6.2.2.

6.6.4 Effect of Failure to Achieve Final Completion. Should Final Completion not be achieved within the time specified, the Owner will issue to the Contractor a fourteen (14) day notice as a final warning to complete the Work. If Final Completion is not achieved by the end of the 14th day from the date of the Notice, the following matters are conclusively determined, subject to any request for extension of time as set forth in Section 6.2.3.3 below:

6.6.4.1 Breach of Covenant of Time. As time is of the essence in the completion of the Work, the Contractor is in breach of the covenant of time and is subject to default.

6.6.4.2 Ineligibility to Bid Upon State Contracts. The Contractor is ineligible to bid upon any contract invitation to bid of the Georgia State Financing and Investment Commission, the Board of Regents of the University System of Georgia or any unit of the University System of Georgia, or the Georgia Department of Administrative Services. In the event a bid has been submitted but the bid award has not been made, the Contractor's ineligibility requires that its bid be rejected.

6.6.4.2.1 Automatic Restoration of Eligibility to Bid. The Contractor's eligibility to bid upon state contracts shall be restored automatically as of the date of achievement of Final Completion as evidenced by the Design Professional's Certificate of Final Completion. 6.6.5.2.2 Application to Reinstate Eligibility to Bid. The Contractor's eligibility to bid upon state contracts may be reinstated upon the following:

(a) A written application to the Owner, not earlier than 18 months after the date of failure to achieve final completion; requesting reinstatement of eligibility, and

(b) The showing of good and just cause why the Contractor's eligibility should be reinstated, or that there is good and just cause to believe that the achievement of Final Completion was impossible to the extent that determination of ineligibility was improvident.

(c) The Owner may, upon written request, permit the Contractor to make a personal presentation upon the application to the Owner.

6.6.5 Final Payment. Final Payment shall be due 10 days after receipt by the Owner of the application for payment upon achievement and certification of Final Completion. Payment shall be made by a check payable jointly to the Contractor and surety and shall be mailed to the surety. Owner shall process the Final Payment expeditiously as possible in accordance with the certification of the Design Professional, but interest shall not accrue until thirty (30) days have elapsed from receipt, unless error is found in the application or supporting documents.

6.6.5.1 Certification of Contractor. The Contractor shall certify, over his own signature, that the Work provided for by the Contract Documents has been completed under the terms and conditions thereof, and that the entire balance of the contract is due and payable.

6.6.5.2 Supporting Documentation.

6.6.5.2.1 Financial Data. The Contractor shall submit evidence satisfactory to the Design Professional that all payrolls, material bills, and other indebtedness connected with the work have been paid.

6.6.5.2.2 Affidavits and Bonds. The Contractor shall attach copies of the affidavits and bonds set forth in Sections 6.4.2.2.1 and 2 above, execute the payment certification, and forward it directly to the Design Professional.

6.6.6 Effect of Final Payment and Release of Claims. Acceptance of Final Payment for Final Completion by the Contractor shall operate as settlement, waiver, release, discharge and payment in full of all claims against Owner of any nature arising out of the Project.

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SECTION 7 – FORMS

FORMS INDEX:

Performance Bond
Payment Bond
Statutory Affidavit
Five Year Bond on Roofs and Walls
Specimen Certificate of Manufacturer
Certificate of Insurance
Bond to Discharge Claim
Change Order Form
Application for Payment Form
Material Completion Checklist
Final Certification of Costs
Non-Influence Affidavit – Construction
Contractor Affidavit under O.C.G.A. § 13-10-9I (b)(I)
Request for Reimbursement DE Form 0263

Project No. _____

[NEED TO REVIEW BOND FORMS PROPOSED BY SPECIFIC SURETIES.]

PERFORMANCE BOND

Bond No. _____

KNOW ALL MEN BY THESE PRESENTS:

That _____ as principal (hereinafter referred to
(Legal Name and Address of the Contractor)
as "Contractor"), and _____ as surety (hereinafter referred to
(Legal Title and Address of Surety)
as "Surety"), are held and firmly bound unto the Board of Public Education of the City of Savannah and the County
of Chatham as Obligee (hereinafter referred to as "Owner") in the amount of

_____ DOLLARS (\$ _____), to which payment Contractor and Surety bind Themselves, their
heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above bounden Principal has entered into a contract with the Owner bearing date of
_____ for: _____

(Insert Name of Work)
in accordance with drawings and specifications prepared by: _____ which
(Full Name and Title)

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

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Contractor shall promptly and
faithfully perform and comply with the terms and conditions of said contract; and shall indemnify and hold harmless
the Owner against and from all cost, expenses, damages, injury or loss to which said Owner may be subjected by
reason of any wrongdoing, including patent infringement, misconduct, want of care or skill, default or failure of
performance on the part of said Principal, his agents, Subcontractors or employees, in the execution or
performance of said contract, then this obligation shall be null and void; otherwise it shall remain in full force and
effect.

- (1) The said Surety to this bond, for value received, hereby stipulates and agrees that no change or changes, extension of time or extensions of time, alteration or alterations or addition or additions to the terms of the contract, or to the work to be performed thereunder, or the specifications or drawings accompanying same, or the exercise of the Owner's right to do work with separate contractors or to correct work pursuant to the terms of the Contract, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change or changes, extension of time or extensions of time, alteration or alterations or addition or additions to the terms of the contract, or to the Work or to the specifications or drawings. In addition, the Surety to this bond, for value received, hereby agrees to the provisions of Paragraph 1.5.1.3 for increases in the penal amount of this bond and waives notice from the Owner of any such changes.
- (2) If pursuant to the Contract Documents the Contractor shall be declared in default by the Owner under the aforesaid Contract, the Surety shall promptly perform this bond agreement in accordance with its terms and conditions. It shall be the duty of the Surety to give an unequivocal notice in writing to the Owner, within twenty-five (25) days after receipt of a declaration of default, of the Surety's election to either remedy the default or defaults promptly or to perform the Contract promptly, time being of the essence. In said notice of election, the Surety shall indicate the date on which the remedy or performance will commence, and it shall then be the duty of the Surety to give prompt notice in writing to the Owner immediately upon completion of (a) the remedy and/or correction of each default, (b) the remedy and/or correction or each item of condemned work, (c) the furnishing of each omitted item of work, and (d) the performance of the Contract. The Surety shall not assert the solvency of its Principal as justification for its failure to give notice of election or for its failure to promptly remedy the default or defaults or perform the Contract.
- (3) Supplementary to and in addition to the foregoing, whenever the Owner shall notify the Surety that the Owner has notice that the Contractor has failed to pay any Subcontractor, Supplier, or laborer for labor or materials certified by the Contractor as having been paid for by the Contractor in accordance with said Contract, which said labor or materials have been included in a periodical estimate and certified by the Design Professional for payment and paid for by the Owner, the Surety shall, within twenty (20) days of receipt of such notice, cause to be paid any unpaid amounts for such labor and materials.

Project No. _____

[NEED TO REVIEW SPECIFIC PAYMENT BOND PROVISIONS PROPOSED BY SPECIFIC SURETIES.]

PAYMENT BOND

Bond No. _____

KNOW ALL MEN BY THESE PRESENTS:

That _____ as Principal (hereinafter referred to as the _____
(Legal Title and Address of the Contractor)

"Principal") and _____ as Surety (hereinafter referred _____
(Legal Name and Address of the Surety)

to as "Surety"), are held and firmly bound unto the Board of Public Education of the City of Savannah and the County of Chatham as Obligee (hereinafter referred to as "Owner") for the use and benefit of claimants defined, hereinafter in the amount of: _____ DOLLARS (\$ _____)
(Insert Contract Price)

to which payment Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns jointly and severally, firmly by these presents.

WHEREAS, the above bounden Principal has entered into a contract with Owner dated _____ for _____ in accordance with the drawings and _____
(Insert Name of Work)

specifications prepared by: _____ which Contract is incorporated herein _____
(Here insert Full Name and Title)

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

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and materials supplied in the prosecution of the work provided for in said Contract, then this obligation shall be void, otherwise it shall remain in full force and effect subject, however, to the following conditions:

- (1) The said Surety to this bond, for value received, hereby stipulates and agrees that no change or changes, extension of time or extensions of time, alteration or alterations or addition or additions to the terms of the Contract or to the work to be performed thereunder, or the specifications or drawings accompanying same, or the exercise of the Owner's right to do work with separate contractors or to correct work pursuant to the terms of the Contract, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change or changes, extension of time or extensions of time, alteration or alterations or addition or additions to the terms of the Contract or to the Work or to the specifications or drawings. In addition, the Surety to this bond, for value received, hereby agrees to the provisions of Paragraph 1.5.1.3 for increases in the penal amount of this bond and waives notice from the Owner of any such changes.
- (2) A claimant is defined as any Subcontractor or any person supplying labor, materials, machinery, or equipment in the prosecution of the work provided for in said Contract.
- (3) Every person entitled to the protection hereunder and who has not been paid in full for labor or materials furnished in the prosecution of the work referred to in said bond before the expiration of a period of ninety (90) days after the day on which the last of the labor was done or performed by him, or materials or equipment or machinery was furnished or supplied by him for which claim is made, shall have the right to sue on such payment bond for the amount, or the balance thereof, unpaid at the time of the commencement of such action and to prosecute such action to final execution and judgment for the sum or sums due him, provided, however, that any person having direct contractual relationship with a Subcontractor, but no contractual relationship express or implied with the Contractor furnishing said payment bond shall have (a) given written notice to said Contractor within ninety (90) days from the day on which such person did or performed the last of the labor, or furnished the last of the materials or machinery or equipment for which such claim is made stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished or

SIGNED AND SEALED THIS _____ DAY OF _____, _____.

IN THE PRESENCE OF:

WITNESS

PRINCIPAL (SEAL)

NAME TITLE

WITNESS

SURETY (SEAL)

NAME TITLE
Resident Georgia Agent *

(*) Attach Power of Attorney

STATUTORY AFFIDAVIT

COUNTY OF _____ STATE OF _____

FROM: _____
Contractor

TO: _____
Owner

Re: Contract entered into the _____ day of _____, 20____, between the above-mentioned parties for the construction

of Project No. _____ located at _____

KNOW ALL MEN BY THESE PRESENTS:

1. The undersigned hereby certifies that all work required under the above Contract has been performed in accordance with the terms thereof, that all Subcontractors, Suppliers, mechanics, and laborers have been paid and satisfied in full, or will be paid and satisfied in full out of the proceeds of this payment as set forth in O.C.G.A. §13-10-80, and that there are no outstanding claims of any character [including disputed claims or any claims to which the Contractor has or will assert any defense] arising out of the performance of the Contract which have not been paid and satisfied in full except as listed herein below:.....

Instructions to Contractor- ENTER THE WORD "NONE" OR LIST THE NAMES OF CLAIMANTS

2. The undersigned further certifies that to the best of his knowledge and belief there are no unsatisfied claims for damages resulting from injury or death to any employees, Subcontractors, or the public at large arising out of the performance of the Contract, or any suits or claims for any other damage of any kind, nature, or description which might constitute a lien upon the property of the Owner.

3. The undersigned makes this affidavit for the purpose of receiving final payment in full settlement of all claims against the Owner arising under or by virtue of the Contract, and acceptance of such payment is acknowledged as a release of the Owner from any and all claims arising under or by virtue of the Contract.

This _____ day of _____, 20_____.

_____(L.S.)
Signature

Title

Firm

COUNTY OF _____ STATE OF _____

Personally before me, the undersigned authority,
appeared _____

(NAME OF PERSON SIGNING THE AFFIDAVIT)
who is known to me to be an official of the firm of _____,
(NAME OF CONTRACTOR)

and who, after being duly sworn, stated on his oath that he had read the above statement and that the same is true and correct.

Notary Public

My Commission expires _____ This _____ day of _____, 20_____.

FIVE YEAR BOND ON ROOFS AND WALLS

STATE OF GEORGIA

COUNTY OF _____

Firmly Bound. Know all men by these presents, that we, _____ (“Contractor”) as Principal, and
(Name _____ of _____ Surety), as Surety, are held and firmly bound unto
_____.

(Insert Name of Owner)

Owner, in the sum of _____ Dollars (\$ _____) for the payment of which well and truly to be
made and done, we bind ourselves, our executors and administrators, our successors and assigns, jointly and
severally, by these presents.

Condition of Obligation. The condition of the above obligation is such that WHEREAS Contractor has entered
into a Contract with Owner dated (enter date of contract), for construction of Project No. _____.

Warranty. WHEREAS, the said Contractor warrants with respect to the said work that for a period of five years
from the date of the execution of the Final Certificate of the Design Professional, the roofs of the building (or
buildings) and roofs of covered passages, including, but not limited to, roof decking; deck sheathing; material used
as a roof base or insulation over which roof is applied; roofing materials; promenade decks or any other work on the
surface of the roof; flashing; base flashing; counter flashing; metal work, gravel stops; or roof expansion joints shall
be absolutely watertight and free from all leaks. At no expense to the Owner, the Contractor will make repairs to
any defects which may develop in the work including, but not limited to the following: blisters, exposed felts, ridges,
wrinkles, splits, warped insulation, and loose flashing, in a manner compatible to the system and acceptable under
industry standards and in accordance with the Contract Documents. The Contractor also warrants that for the same
five-year period the walls of the building (or buildings) including, but not limited to the following: vertical and/or
horizontal expansion joints, below and/or above grade waterproofing, below and/or above grade damp-proofing,
thru-wall flashing, damp course flashing and waterproofing of joints at openings in walls including, but not limited to,
door perimeters, window perimeters, vents and pipe openings shall be absolutely watertight and free from all leaks,
seepage or dampness, and that he shall, at no expense to the Owner, make repairs to any defects which may
develop in the work in a manner compatible to the system and acceptable under industry standards and in
accordance with the Contract Documents, provided, however, that the following are excluded from the warranty:

- (a) Defects or failures resulting from abuse by the Owner.
- (b) Defects in design which the said Contractor shall have brought to the attention of the Owner in
writing prior to installation of the work, except, however, that the Contractor shall not be responsible, insofar
as liability under this bond is concerned, for bringing to the attention of the Owner defects in design
involving failure of
 - (1) Structural Frame
 - (2) Load bearing walls
 - (3) Foundations

nor shall the Contractor be responsible for correction of leaks resulting from said failure.

- (c) Damage caused by fire, tornado, hail, hurricane, acts of God, wars, riots, civil commotion, terror
acts, or terrorist activity.
- (d) The Contractor is not an insurer nor is he a guarantor of the suitability of adequacy of design. Any
other provisions of this bond to the contrary notwithstanding, the Contractor shall not be required to
remedy any unsuitable or inadequate design.

Leaks or Defect. WHEREAS the said Contractor agrees that should any leaks or defects occur in the roofs or walls of the said (Name and Number of Project) the said Contractor will promptly remedy the said leaks or defects and pay for any damage to other work of said Project resulting therefrom, except, however, that when this instrument is executed by a Subcontractor this Contract, shall, insofar as the Subcontractor is concerned, extend only to the work executed by said Subcontractor.

Full Force and Effect. NOW, THEREFORE, the condition of this obligation is such that if the Contractor shall in all things promptly and faithfully perform and comply with the terms and conditions hereinbefore set forth, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be duly executed this _____ day of _____, 20__.

Principal WITNESS
By: _____
TITLE _____

Surety WITNESS
By: _____
TITLE _____

(*) Attach Power of Attorney

Instructions for execution by Contractor

- (a) If the firm is a partnership, all members of the partnership must execute.
- (b) If the firm is a corporation, the president must sign, the secretary must attest, and the Seal of Corporation must be affixed.
- (c) If the firm operates as a sole proprietorship, the proprietor must execute.

SPECIMEN CERTIFICATE OF MANUFACTURER

INSTRUCTIONS FOR PREPARATION OF CERTIFICATE: To be acceptable, the certificate must be prepared in the form indicated by this specimen on the official letterhead of the manufacturer. No portions of the certificate may be omitted. Attached is a copy of the Contract provision under which the certificate is required. The Owner needs only one copy of the certificate. If equipment of a manufacturer is not installed in strict compliance with the recommendations of the manufacturer or if in the design of the work the equipment is not applied in strict compliance with the recommendations of the manufacturer, a letter from the manufacturer should be forwarded to the Contractor [with copies to the Design Professional and the Owner] setting forth a list of the deviations from the recommendations of the manufacturer and stating what remains to be done in order to bring the work into strict compliance with the recommendations of the manufacturer. Prior to calling upon the representative of the manufacturer for performance of the services necessary to enable him to execute a certificate in accordance with this specimen, it is the obligation of the Contractor to have installed the work in strict compliance with the recommendations of the manufacturer [See Article 2.2.4 of the Contract], and it is likewise the obligation of the Contractor to have put the equipment in good operating condition in absolute and final readiness for the "start-up," "testing," and "placing into operation" as defined herein below by the representative of the manufacturer.

Definitions:

1. "Start-up" is defined as putting the equipment into action.
2. "Testing" is defined as performing testing as stipulated in the Contract Documents.
3. "Placing into operation" is defined as operating the equipment for a sufficient period of time under normal operating conditions for determination to be made it is performing properly.

[Company Letterhead]

Date: _____

To: Savannah Chatham County Public School System
208 Bull Street, Room 305
Savannah, Georgia 31401

Re: Certificate of [JOHN DOE CORPORATION] that equipment or components furnished by it has [or have, as the case may be] been installed in strict compliance with its recommendations and is [or are, as the case may be] operating properly at PROJECT NO. _____

Savannah Chatham County Public School System:

1. We certify through our duly authorized and acting agent that the following item [or items, as the case may be] furnished by us to the Project named in the caption was [or were, as the case may be] started up, tested, and placed in operation by our authorized field representative on [enter the date on which the field representative performed the start-up, test, and placing into operation] and is [or are, as the case may be] operating properly:

[List the item or items furnished to the job. Show catalogue number or numbers.]

2. We certify further that the aforesaid equipment was installed in strict compliance with our recommendations as published by us in the following document [or documents, as the case may be]:

[Insert the date, name, or other positive means of identifying the exact document or documents in which the recommendations for installation and use of the item or items are published.] [Date Must be Shown]

3. A copy of the aforesaid document(s) is (are) attached hereto.

This _____ day of _____, 20____

JOHN DOE CORPORATION

By: _____
Authorized Representative

[See Article 6.4.1.2.5]

INSTRUCTIONS TO PRODUCING AGENT: COMPLETE THE SHADED PORTIONS OF THIS CERTIFICATE AND RETURN TO THE INSURED. NO CONDITION, TERM, QUALIFICATION, LIMITATION, EXCEPTION, EXEMPTION, MODIFICATION, OR PROVISO SHALL APPEAR ON THE CERTIFICATE.

Certificate of Insurance

Name, Address and Telephone Number of Producing Agent	PROJECT NO.:
	PROJECT NAME:
Name and Address of Insured Contractor (Contractor)	Certificate Holder(Owner): Address

Type of Insurance	Policy No.	Company Affording Coverage	Policy Expiration Date	Limits
Commercial General Liability(1993 ISO Occurrence Form or its equivalent); Includes XCU Coverage				General Aggregate \$2,000,000.00 (per project) Products-Co./Op Agg \$1,000,000.00 Personal & Adv injury \$1,000,000.00 Contractual \$1,000,000.00 Each Occurrence \$1,000,000.00
Commercial Business Automobile Liability Including, but not limited to, owned, hired and non-owned autos				Combined Single Limit \$1,000,000.00 OR Bodily Injury \$1,000,000.00 (per person) Property Damage \$1,000,000.00
Workers Compensation The Proprietor/Partners/ Executive Officers are included as required				W C Statutory Limits
Employers' Liability				Each Accident \$1,000,000.00 Disease – Policy Limit \$1,000,000.00 Disease-Each Employee \$1,000,000.00
Commercial Umbrella Liability				Each Occurrence \$2,000,000.00 Aggregate \$4,000,000.00

**Builders Risk written on
2001 Cause of Loss-Special
Form or its equivalent**(See
endorsement below)
OR
Installation Floater (for
other than new construction)

The Undersigned has reviewed the insurance coverages required by the Contract Documents for the project referenced above and makes the following certifications which shall serve to bind the various insurance carriers to the coverages as required by the Contract Documents:

Such insurance as is herein certified (i) applies to all in connection with the work required by the provisions of the documents forming the , (ii) applies whether or not the Contract Documents between the insured contractor and the Owner have been executed, (iii) is written in accordance with the company's regular policies and endorsements, subject to the company's applicable manuals or rules and rates in effect, as modified by this certificate and the insurance article of the contract, (iv) have been issued to the insured named above, and (v) are in force at this time.

With the exception of the Workers Compensation policy, the Officers, Members, Agents, & Employees of the Owner and the State of Georgia are included as additional insureds as their interests may appear. Each Insurer is hereby notified that the statutory requirement that the Attorney General of Georgia shall represent and defend the Indemnities remains in full force and effect and is not waived by issuance of any policy of insurance.

The Builders Risk policy has been endorsed as follows: "The following may occur without diminishing, changing, altering or otherwise affecting the coverage and protection afforded the insured under this policy: (i) Furniture and equipment may be delivered to the insured premises and installed in place ready for use; and (ii) Partial or complete occupancy by Owner; and (iii) Performance of work in connection with construction operations insured by the Owner, by agents or lessees or other contractors of Owner, or by contractors or the lessee of the Owner."

Each policy has been endorsed to provide that the policy shall not be canceled, changed, allowed to lapse, or allowed to expire for any reason, except for non-payment of premiums, until thirty (30) days after Owner has received written notice thereof as evidenced by return receipt of registered letter.

Authorized Representative: _____
Date: _____

Typed Name: _____

BOND TO DISCHARGE CLAIM

WHEREAS, _____ (hereinafter referred to as "Claimant" has filed a claim against _____ (the Contractor, hereinafter referred to as "Principal") on the following contract:

WHEREAS, the undersigned Principal and Surety dispute the Claimant's entitlement to all or part of the claim and expressly reserve all rights and defenses available at law in connection therewith;

WHEREAS, _____ as Principal and _____ as Surety, desire to continue to receiving payments from the Owner for work done on the above referenced project,

NOW THEREFORE, in consideration of these premises, the undersigned Principal and Surety do hold themselves firmly bond unto _____ as Claimant, in the total amount of _____ dollars (\$ _____), representing double the amount of the claim.

The condition of this bond is such that should the undersigned Principal or Surety pay to the Claimant the sum that may be found to be due to the Claimant upon the trial of any action that may be filed by said Claimant, or if Principal or Surety pay to the Claimant a sum agreeable to Claimant and Claimant accepts such payment, then this Bond shall be void; otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the said Principal and Surety have set their hands and seals this ____ day of _____, 20__.

Principal

by: _____

Surety*

by: _____

Attorney-in-Fact

Type Name Above

(* Attach Power of Attorney)

CHANGE ORDER FORM
(Lump Sum)

NOTE TO DESIGN PROFESSIONAL:

Please prepare each Change Order in the form and wording given below, deleting inapplicable wording and adding such explanations as may be necessary. The wording in Paragraph 11 may not be changed or altered in any way by either the Design Professional or the Contractor. Send four copies, signed by you and the Contractor, to the Owner. *Do not forward a Change Order unless it is accompanied by a breakdown which has been certified by the Contract Compliance Specialist and Program Manager (if applicable).*

CHANGE ORDER No. _____

Note to Design Professional:
Please leave the Change Order number blank. The Owner will assign a number.

Project Name: _____
Project Number: _____

Owner

Note to Design Professional: *No Change Order should be forwarded unless you have been furnished with a letter from the Owner authorizing same.*

1. Submission of this Change Order for consideration was authorized by letter from the Owner, dated _____, 200__, Incumbrance Record No. _____.
2. The changes hereinafter described are applicable to the Contract for the construction of the above-referenced Project and amend the Contract Documents.
3. Description of Change:

Note to Design Professional: *Be sure to give a complete statement describing the changes in the work, including the specifications. If drawings are necessary, refer to them by date, etc., and state they are made a part of the Change Order. Copy of drawings should be attached to the Change Order.*

4. This Change Order is deemed necessary and originated with the (Design Professional) (Owner) (Contractor). *(Indicate applicable entity.)*
5. This Change Order is necessary to:

Note to Design Professional: *Give a complete description of conditions which necessitate the change.*

6. The amount of the Change Order was determined by:

- Choose one:
- a. Estimate and acceptance in lump sum.
 - b. Unit prices stated in contract or subsequently agreed upon.
 - c. Cost and percentage as described in general conditions.

7. A memorandum is attached showing cost breakdown of labor and materials by unit and quantities as prepared by the Contractor and checked by the Contract Compliance Specialist and Program Manager (if any).

8. We have verified the quantity and quality of all materials shown on the memorandum. We have verified that all prices are reasonable and do not exceed current costs for like services or materials, and we have verified that the quality of the materials meets the requirements of the Contract Documents.

Note to Design Professional: Please observe that verification of quantities and prices means the Design Professional who signs the Change Order has personal knowledge that the quantities shown in the memorandum referred to under paragraph 7 above are correct, that he has personally satisfied himself that full credit has been extended for any work or materials deleted or omitted, and that he has conclusively established by such checking or inquire as may be necessary that the prices and allowances shown in the memorandum comparable with current costs for like services and materials.

9. The contractor shall be allowed _____ additional calendar days for completion. The Material Completion and Occupancy Date is: _____.

Note to Design Professional: Please insert the number of additional Days allowed and the new Material Completion and Occupancy Date, or, if no additional time is allowed, insert "0" for the Days and "No Change" for the date.

10. The Contract Sum shall be *(increased)* *(decreased)* by \$ _____ on account of this change.

Note to Design Professional: Please delete inapplicable language in parentheses and enter the dollar amount for this change. Insure that cost of the Work, percentage markup for profit, and the daily rate of general conditions costs are accurate and included in the amount of an additive change. If a deductive change, the amount is generally cost of the work only; however, consult with the owner in significant deductive Change Orders to determine if time or profit should be included in the deducted amount.

11. The payment and extension of time, if any, provided by this Change Order constitutes compensation in full to the Contractor and its Subcontractors, Suppliers, and for all costs and markups, directly and indirectly attributable to the changes ordered herein, and for all delays or time related costs thereto and for any acceleration costs for performance of changes within the time stated and to be completed by the Material Completion and Occupancy Date and for any claims related thereto against the Owner and the Design Professional, and design consultants.

RECOMMENDED FOR OWNER'S ACCEPTANCE:

(DESIGN PROFESSIONAL)

By: _____

Date: _____

Printed Name: _____

APPROVED AND AGREED BY CONTRACTOR:

By: _____

Date:

Printed Name: _____

CHANGE ORDER FORM
(Force Account or Indeterminate Units)

NOTE TO DESIGN PROFESSIONAL:

Please prepare each Change Order in the form and wording given below, deleting inapplicable wording and adding such explanations as may be necessary. The wording in Paragraph 8 may not be changed or altered in any way by either the Design Professional or the Contractor. The wording in Paragraph 5 of the Final Cost Amendment may not be changed or altered in any way by either the Design Professional or the Contractor. Send four copies, signed by you and the Contractor, to the Owner. *Do not forward a Change Order unless it is accompanied by a breakdown which has been checked by the Contract Compliance Specialist and Program Manager (if applicable).*

CHANGE ORDER No. _____

Note to Design Professional:
Please leave the Change Order number blank. The Owner will assign a number.

Project Name: _____

Project Number: _____

Owner

Note to Design Professional: *No Change Order should be forwarded unless you have been furnished with a letter from the Owner authorizing same.*

1. Submission of this Change Order for consideration was authorized by letter from the Owner, dated _____, 200__, Incumbrance Record No. _____.

2. The changes hereinafter described are applicable to the Contract for the construction of the above-referenced Project and amend the Contract Documents.

3. Description of Change:

Note to Design Professional: *Be sure to give a complete statement describing the changes in the work, including the specifications. If drawings are necessary, refer to them by date, etc., and state they are made a part of the Change Order. Copy of drawings should be attached to the Change Order.*

4. This Change Order is deemed necessary and originated with the (Design Professional) (Owner) (Contractor). *(Indicate applicable entity.)*

5. This Change Order is necessary to:

Note to Design Professional: *Give a complete description of conditions which necessitate the change.*

6. The Maximum Allowable Cost of the Change Order was estimated by:

Choose one:

- a. Estimate in lump sum.
- b. Unit prices stated in contract or subsequently agreed upon, and an estimated number of units.

7. A memorandum is attached showing the estimated cost breakdown of labor and materials by unit and quantities as prepared by the Contractor and checked by the Contract Compliance Specialist and Program Manager (if any).

8. The Maximum Allowed Cost for this Change Order is \$ _____, and is established as Incumbrance Record No. _____. This Maximum Allowed Cost may be amended by the Owner in the event the actual costs are expected to exceed the Maximum Allowed Cost, provided that Contractor shall give written notice of such fact prior to incurring actual costs in excess of ninety percent of the Maximum Allowable Cost. In no event shall actual costs be incurred in excess of the Maximum Allowed Cost, as it may be amended.

9. The payment and extension of time, if any, provided by this Change Order constitutes interim compensation to the Contractor and its Subcontractors, Suppliers, and for all costs and markups, directly and indirectly attributable to the changes ordered herein, and for all delays or time related costs thereto and for any acceleration costs for performance of changes within the time stated and to be completed by the Material Completion and Occupancy Date and for any claims related thereto against the Owner and the Design Professional, and design consultants.

RECOMMENDED FOR OWNER'S ACCEPTANCE:

(DESIGN PROFESSIONAL)

By: _____

Date: _____

Printed Name: _____

APPROVED AND AGREED BY CONTRACTOR:

By: _____

Date:

Printed Name: _____

APPLICATION FOR PAYMENT

PAGE ONE OF ONE PAGES

TO OWNER: PROJECT: _____
 APPLICATION NUMBER: _____
 PERIOD TO: _____
 PROJECT NUMBER: _____
 APPLICATION DATE: _____
 CONTRACT DATE: _____
 DISTRIBUTION TO: OWNER
 DESIGN PROFESSIONAL
 CONTRACTOR

FROM CONTRACTOR: VIA DESIGN PROFESSIONAL: _____

CONTRACT FOR:

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet, Stored Materials, Change Orders is attached.

- 1. ORIGINAL CONTRACT SUM.....\$ 0.00
- 2. NET CHANGE BY CHANGE ORDERS.....\$ 0.00
- 3. TOTAL COMPLETED AND STORED TO DATE.....\$ 0.00
- 4. TOTAL AMOUNT EARNED TO DATE.....\$ 0.00
- 5. RETAINAGE:

_____ of Completed Work \$ 0.00

- Total Retainage \$ 0.00
- 6. TOTAL EARNED LESS RETAINAGE.....\$ 0.00

(Line 4 less Line 5 Total)

- 7. LESS PREVIOUS CERTIFICATES FOR PAYMENT
- (Line 6 from prior Certificate).....\$ 0.00
- 8. **CURRENT PAYMENT DUE**.....\$ **0.00**

- 9. BALANCE TO FINISH, INCLUDING RETAINAGE
- \$ 0.00

I further certify that all claims outstanding against the undersigned Contractor for labor, materials, and expendable equipment employed in the performance of said contract have been paid in full in accordance with the requirements of said contract, except such outstanding claims as are listed below or on the attached sheet, which statement contains all claims against the Contractor which are not yet paid, including all disputed claims and any claims to which the Contractor has or will assert any defense.

I further certify that all of the materials indicated on this Application for Payment as being stored on the Site, but not yet incorporated into the building, have been purchased, delivered, and are now stored on the Site for future incorporation into the building and until so incorporated the title to same is, upon payment of this statement, vested in the Owner. Furthermore, the undersigned Contractor assumes full responsibility for the existence, protection, and, if necessary, replacement of the above-mentioned materials until the completion of this contract.

CONTRACTOR: _____
 By: _____ Date: _____

CONTRACT COMPLIANCE SPECIALIST'S CERTIFICATE

I have checked this Application for Payment and to the best of my knowledge and belief, the statement of work performed and statement of materials stored on site by the Contractor are supported by my observations

CONTRACT COMPLIANCE SPECIALIST: _____
 By: _____ Date: _____

DESIGN PROFESSIONAL'S CERTIFICATE FOR PAYMENT

I certify that I have verified this Application for Payment and, to the best of my knowledge and belief, it is a true and correct statement of work performed and statement of materials stored on site by the Contractor and that the Contractor's certified statement of his account and the amount due him is correct and just. I further certify that all work has been performed and materials have been supplied in full accordance with the terms and conditions of the Contract Documents and authorized changes thereto.

AMOUNT CERTIFIED \$ _____
 DESIGN PROFESSIONAL: _____
 By: _____ Date: _____

CHANGE ORDER SUMMARY*	ADDITIONS	DEDUCTIONS
Total changes approved in previous periods by Owner	0.00	0.00
Total approved this period	0.00	0.00
TOTALS	\$0.00	\$0.00
NET CHANGES by Change Order		\$0.00
Authorized Change Order Amount		\$0.00

* See Attached Sheet

SUMMARY OF MATERIALS STORED

In support Application for Payment No.

Project No. _____ Period Ending:

Contractor:

ITEM NO.	NAME (Contractor or Subcontractor)	TYPE OF MATERIAL	QUANTITY	AMOUNT (Dollars)
		TOTALS		

Prepared by _____ for _____ (Contractor)

Date _____, and certified by him to be a true and accurate statement.

Checked:

By: _____
Contract Compliance Specialist

Date:

CONSTRUCTION PROFESSIONAL'S MATERIAL COMPLETION CHECKLIST

Project Number and Name:

Construction Professional:

This Checklist completed by the undersigned is provided as a guide to assist in the compilation of documents required for Material Completion. Any exceptions or incomplete items shall be identified and explained in Part D. Refer to the executed contract documents for complete details on Material Completion Requirements and additional requirements associated with services of Commissioning Authority and Executive Administrator if applicable.

The Construction Professional affirms completion, transmittal or provision of the following Material Completion contract requirements:

Part A – Submittals and Requirements prior to Notice of Readiness for Inspection for Material Completion:

- 1. Correction of all non-complaint or incomplete work.
- 2. Preparation of an initial punch list of Minor Items and Permitted Incomplete Work.
- 3. Completion of all coordination and work requirements associated with Commissioning Authority (if applicable).
- 4. Copy of the initial test and balance report on HVAC systems.
- 5. Copy of the facility operation and maintenance instructions and any other documents specified in Division 1.
- 6. Certificate of Contractor that all building systems are operational.
- 7. All permits and certificates for operation from applicable regulatory agencies as required by the Contract Documents.

Part B – Issuance of Notice of Readiness for Inspection for Material Completion

- 1. Issuance of Notice.

Part C – Final Documents [Provided by Construction Professional in three ring binders]:

- 1. All documents required by the specifications.
- 2. All warranties and guarantees required by the Contract Documents.
- 3. Non-Influence Affidavit.
- 4. Statutory Affidavit.
- 5. Bond of Discharge Claim (if applicable).

- 6. Five-Year Bond for Roofs and Walls.
- 7. Receipts verifying transmittal of Marked-Up Contract Documents.
- 8. Receipt verifying transmittal or provision of:
 - a. Proper written instructions on operation and maintenance of all mechanical and electrical equipment.
 - b. Training to the Owner in the operation and maintenance of all mechanical and electrical systems.
 - c. Complete brochures and data as prepared and published by the manufacturers of mechanical or electrical equipment or apparatus installed that requires operation or maintenance after occupancy.
 - d. Operation and Maintenance Manuals.
- 9. Certificates of Manufacturers for Major Components.
- 10. Final Certification of Costs.
- 11. Key Schedule and Receipt verifying transmittal of keys.
- 12. [Other deliverables specified in Contract Documents] _____

Part D – Exceptions (State Paragraph reference and explanation):

This Checklist for Material Completion is executed this _____ day of _____, 20_____.

By: _____

Title: _____

Reviewed and Received by:

CONSTRUCTION DIVISION, GSFIC

By: _____

Name: _____

Title: _____

EXECUTIVE ADMINISTRATOR
(if applicable)

By: _____

Name: _____

FINAL CERTIFICATION OF COSTS
FOR CAPITAL ASSET ACCOUNTING

Date: _____

To: _____ (Owner)

The following accounting of costs for Project No. _____, Project Name:

_____ at

is submitted as follows, with the breakdown of costs as specified in the Final Pay Request attached hereto and incorporated herein, for the purposes of capital asset accounting pursuant to GASB 34 Accounting Statements:

1.	BUILDING AND BUILDING IMPROVEMENTS: *	\$ _____
2.	INFRASTRUCTURE: **	\$ _____
3.	FURNISHINGS AND EQUIPMENT: ***	\$ _____
		=====
	TOTAL:	\$ _____

- Notes:** (Contractor must insure costs from all Change Orders are apportioned and included in each line item above)
- * **Building:** Include totals from Items A, 1, 3, 5, 6, 7, 8, 9, 10, 13, 14, 15 and "Building" portions of Items 2, 4, and 16.
 - ** **Infrastructure:** Include totals from the "Infrastructure" portions of Items 2, 4 and 16.
 - *** **Furnishing and Equipment:** Include totals from only the "moveable" portions of Items 11 and 12.

I certify to the best of my knowledge and belief that all of the amounts set forth on this Certificate are true and correct and are supported by the financial records for this project on file with the Contractor.

Contractor _____

By: _____

Date _____

Title: _____

CERTIFICATE OF THE DESIGN PROFESSIONAL

I certify to the best of my knowledge, information and belief that the amounts certified by the Contractor are consistent with the estimates provided in my final Statement of Probable Cost for the Project; that the Building Improvement contains a footprint based upon a line 5 feet outside the building structure) of _____ square feet, a total of _____ gross square feet, and contains _____ floors (including basements). The building fire protection system is _____ (include type of system). The Certificate of Occupancy was issued on _____. I further certify that the design intent for this project is that the Building and Building Improvements are of Building Construction Class _____ and ISO Occupancy Type(s) _____ and have an expected useful life of _____ years from the date of this Certificate, and that my observations of the construction confirm these expectations. (See Exhibit J of Design Professional Contract.)

Name _____ Design Professional.

Date:

CERTIFICATE OF THE CLIENT AGENCY OR OWNER

I certify that to the best of my knowledge, information, and belief that the cost of the real property covered by this project, to the boundaries on the final Site Plan, was \$ _____ and the cost of additional government-supplied furnishings and equipment acquired for this Project was \$ _____.

Name _____ Title: _____ Date: _____

NON-INFLUENCE AFFIDAVIT – CONSTRUCTION
O.C.G.A. § 36-91-21

Excerpt from Georgia Laws
OCGA Section 36-91-21

(d) Whenever a public works construction contract for any governmental entity subject to the requirements of this chapter is to be let out by competitive sealed bid or proposal, no person, by himself or herself or otherwise, shall prevent or attempt to prevent competition in such bidding or proposals by any means whatever. No person who desires to procure such work for himself or herself or for another shall prevent or endeavor to prevent anyone from making a bid or proposal therefore by any means whatever, nor shall such person so desiring the work cause or induce another to withdraw a bid or proposal for the work.

(e) Before commencing the work, any person who procures such public work by bidding or proposal shall make an oath in writing that he or she has not directly or indirectly violated subsection (d) of this Code section. The oath shall be filed by the officer whose duty it is to make the payment. If the contractor is a partnership, all of the partners and any officer, agent, or other person who may have represented or acted for them in bidding for or procuring the contract shall also make the oath. If the contractor is a corporation, all officers, agents, or other persons who may have acted for or represented the corporation in bidding for or procuring the contract shall make the oath. If such oath is false, the contract shall be void, and all sums paid by the governmental entity on the contract may be recovered by appropriate action.

STATE OF GEORGIA
COUNTY OF _____

I do solemnly swear on my oath that, as to the Contract dated _____, 20_____, between _____ and The Board of Public Education for the City of Savannah and the County of Chatham, Georgia, I have not directly or indirectly influenced or the attempted exertion of any influence on behalf of the firm on behalf of which this affidavit is made, in any way, manner, or form in the purchase of materials, equipment, or other items involved in construction, manufacture, or employment of labor under the aforesaid Contract by or on any employee, officer, or agent of the Board, or any person connected with SCCPSS in any way whatsoever and I have not directly or indirectly violated subsection (d) of OCGA 36-91-21.

This _____ day of _____, 20_____.

_____(L.S.)

Signature

Title

Firm

Sworn to and subscribed before me this _____ day of _____, 2008

Notary Public

My Commission expires _____

This _____ day of _____, 20_____.

Contractor Affidavit Under O.C.G.A. § 13-10-91(b)(I)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of the Savannah Chatham County Public School District (the "District") has registered with and is authorized to use and actually uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established by O.C.G.A. § 13-10-01. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Name of Public Employer

Name of Project

Name of Contractor

Federal Work Authorization User Identification
Number

Date of Authorization

I hereby declare under penalty of perjury that the foregoing is true and correct. Executed on _____,
201__ in _____ (city), _____ (state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 201__.

NOTARY PUBLIC

My Commission Expires: _____

**Georgia Department of Education
Facilities Services Unit
Certificate of the Contractor or His Duly Authorized Representative**

Reimbursement Request Number _____ Project Number(s) _____

Project Name _____

To the best of my knowledge and belief, I certify that all items, units, quantities, and prices of work and material shown on this Reimbursement Request Number _____ are correct and that all work has been performed and materials supplied in full accordance with the terms and conditions of the contract documents between the _____ (Owner) and _____ (Contractor); dated: _____ and all authorized changes thereto; and that the following is a true and correct statement of the contract account up to and including the last day of the period covered by this estimate and that no part of the "amount due this estimate" has been received.

1. Original Contract Sum.....	\$0.00
2. Net change by Change Orders	\$0.00
3. Contract Sum to Date(1 + 2).....	\$0.00
a. Total amount earned for work in place (original contract).....	\$0.00
b. Total amount earned for work in place (change orders).....	\$0.00
c. Value of materials stored at site	\$0.00
d. Total amount earned (a plus b plus.....	\$0.00
e. Amount retained (10%).....	\$0.00
f. Total earned less retained percentage (d minus e)	\$0.00
g. Total previously approved	\$0.00
h. Total due this request for contractor (f minus g).....	\$0.00
i. Amount due this request for architect	\$0.00
j. Total amount requested (h plus i).....	\$0.00

I further certify that all claims outstanding against the undersigned contractor for labor, materials and expendable equipment employed in the performance of said contract have been paid in full in accordance with the requirements of said contract, except such outstanding claims as are listed below or on the attached sheet, which statement contains all claims against the contractor which are not yet paid, including all disputed claims and any claims to which the contractor has or will assert any defense.

I further certify that all the materials indicated on this Reimbursement Request as being stored on the site, but not yet incorporated into the building have been purchased, delivered and are now stored on the site for future incorporation into the building, and until so incorporated the title to same is, upon payment of this statement, vested in the owner. Furthermore, the undersigned contractor assumes full responsibility for the existence, protection, and, if necessary replacement of the above mentioned materials until the completion of this contract.

Contractor/Construction Mgr. _____ Date _____

By _____ (Signature) Title _____

Certificate of the Supervising Architect:

I certify that I have verified this Reimbursement Request and that to the best of my knowledge and belief it is a true and correct statement of work performed and materials supplied by the contractor and that the contractor's certified statement of this account and the amount due him is correct and just and that all work and materials in this Reimbursement Request have been performed in full accordance with the terms and conditions of the contract documents and authorized changes thereto.

Architect _____ Date _____

By _____ (Signature) Title _____

DE Form 0263, Revised June 2010

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SECTION 01 10 00 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Owner-furnished products.
4. Access to site.
5. Coordination with occupants.
6. Work restrictions.
7. Specification and drawing conventions.
8. Miscellaneous provisions.

B. Related Requirements:

1. Section 01 50 00 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

A. Project Identification: Coastal Middle School – Roofing Replacement

1. Project Location: 4595 East Highway 80, Savannah, GA, 31410.

B. Owner: Savannah Chatham County Public School System.

C. Architect: Cogdell & Mendrala Architects, PC.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. Roofing replacement and repairs as defined in the Contract Documents.

B. Type of Contract:

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

1.5 ACCESS TO SITE

- A. General: 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. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
- 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.

1.6 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. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
 - 2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

1.7 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing 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.
- C. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, 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.
- D. Nonsmoking Building: Smoking is not permitted within the building or property.
- E. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.

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

1.8 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. 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.
 - 2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.
 - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 10 00

SECTION 01 22 00 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Sections:
 - 1. Division 01 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
 - 2. Division 01 Section "Quality Requirements" for general testing and inspecting requirements.

1.3 DEFINITIONS

- A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 -

EXECUTION

3.1 SCHEDULE OF UNIT PRICES

Unit Price No. 1: Remove and replace damaged plywood 384 S.F. \$ _____ \$ _____
or OSB roof sheathing with plywood (06 10 53) - per S.F. ("A" x "B")

Unit Price No. 2: Remove and replace deteriorated rigid 384 S.F. \$ _____ \$ _____
insulation with polyisocyanurate rigid insulation (07 54 19) - per S.F. ("A" x "B")

Unit Price No. 3: Coat Isolated Ferrous Fasteners and rust 200 Ea. \$ _____ \$ _____
spots no larger than 2" in diameter at Gymnasium Roof with Fluid Applied Roofing (07 14 16) per Ea. ("A" x "B")

Unit Price No. 4: Remove and replace damaged waste vents. 10 Ea. \$ _____ \$ _____
- per Ea. ("A" x "B")

Unit Price No. 6: Remove existing inactive waste vent and patch deck beyond number indicated on the drawings. 10 Ea. \$ _____ \$ _____
- per Ea. ("A" x "B")

Unit Price No. 7: Replace damaged lumber indicated to remain. 400 B.F. \$ _____ \$ _____
- per B.F. ("A" x "B")

Unit Price No. 8: Install 1/2" epoxy anchor bolts, 3" embedment in masonry. 20Ea. \$ _____ \$ _____
- per S.F. ("A" x "B")

Unit Price No. 9: Remove equipment and cover and patch 30 SF deck at mechanical opening less than 9 S.F. beyond those indicated on the drawings. \$ _____ \$ _____
- per S.F. ("A" x "B")

Unit Price No. 10: Replace missing brick at gables with Owner supplied brick.	10 Ea.	\$ _____ Per Ea.	\$ _____ ("A" x "B")
Unit Price No. 11: Replace missing or damaged aluminum soffit panels with like aluminum soffit panels.	10 Ea.	\$ _____ Per Ea.	\$ _____ ("A" x "B")
TOTAL OF UNIT PRICES			\$ _____

END OF SECTION 01 22 00

SECTION 01 23 00 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

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

1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.

- D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1:

1. Base Bid: At brick walls of gymnasium, at locations above metal roofing to be installed as a part of this contract, provide Penetrating Water Repellant as detailed in the drawings and specifications.
2. Alternate: At brick walls of gymnasium, at locations above metal roofing to be installed as a part of this contract, omit Penetrating Water Repellant, and provide metal walls panels on metal furring as detailed in the drawings and specifications, with related work including but not limited to removal and re-installation of gutters and downspouts at the gymnasium roof as required to install metal panels.

B. Alternate No. 2:

1. Alternate: Provide all indicated work indicated as Alternate No. 2 at Gymnasium Roof.

END OF SECTION 01 23 00

SECTION 01 25 00 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Sections:
 - 1. Division 01 Section "Alternates" for products selected under an alternate.
 - 2. Division 01 Section "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.
 - 3. Divisions 02 through 49 Sections for specific requirements and limitations for substitutions.

1.3 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.

1.4 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 CSI Form 13.1A.

2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or modifications 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 substitution 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 and 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 substitution 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.

1.5 QUALITY ASSURANCE

SUBSTITUTION PROCEDURES

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

1.6 PROCEDURES

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

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately upon 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 3 - EXECUTION (Not Used)

END OF SECTION 01 25 00

SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General project coordination procedures.
 - 2. Administrative and supervisory personnel.
 - 3. Coordination drawings.
 - 4. Requests for Information (RFIs).
 - 5. Project meetings.
- B. Related Sections:
 - 1. Division 01 Section "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
 - 2. Division 01 Section "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
 - 3. Division 01 Section "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

- A. RFI: Request from Owner, Design Professional, or Contractor seeking information from each other during construction.

1.4 COORDINATION

- 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. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
- C. 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.
 9. Project closeout activities.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1.5 KEY PERSONNEL

- A. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
1. Post copies of list in project meeting room, in temporary field office and by each temporary telephone. Keep list current at all times.

1.6 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
1. Design Professional will return RFIs submitted to Design Professional by other entities controlled by Contractor with no response.
 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. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Design Professional.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Design Professional.
- D. Design Professional's Action: Design Professional will review each RFI, determine action required, and respond. Allow seven working days for Design Professional's response for each RFI. RFIs received by Design Professional after 1:00 p.m. will be considered as received the following working day.
1. The following RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for interpretation of Design Professional's actions on submittals.
 - f. Incomplete RFIs or inaccurately prepared RFIs.
 2. Design Professional's action may include a request for additional information, in which case Design Professional's time for response will date from time of receipt of additional information.
 3. Design Professional'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 Division 01 Section "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Design Professional in writing within 10 days of receipt of the RFI response.

- E. On receipt of Design Professional's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Design Professional within seven days if Contractor disagrees with response.
- F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log bi-weekly. Software log with not less than the following:
 - 1. Project name.
 - 2. Name and address of Contractor.
 - 3. Name and address of Design Professional.
 - 4. RFI number including RFIs that were dropped and not submitted.
 - 5. RFI description.
 - 6. Date the RFI was submitted.
 - 7. Date Design Professional's response was received.
 - 8. Identification of related Minor Change in the Work, and Proposal Request, as appropriate.
 - 9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

1.7 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Design Professional of scheduled meeting dates and times.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Design Professional, within three days of the meeting.
- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Design Professional, but no later than 15 days after execution of Notice To Proceed.
 - 1. Conduct the conference to review responsibilities and personnel assignments.
 - 2. Attendees: Authorized representatives of Owner, Design Professional, 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.
 - 3. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Lines of communications.
 - f. Procedures for processing field decisions and Change Orders.
 - g. Procedures for RFIs.
 - h. Procedures for testing and inspecting.

- i. Procedures for processing Applications for Payment.
 - j. Distribution of the Contract Documents.
 - k. Submittal procedures.
 - l. Preparation of record documents.
 - m. Use of the premises.
 - n. Work restrictions.
 - o. Working hours.
 - p. Owner's occupancy requirements.
 - q. Responsibility for temporary facilities and controls.
 - r. Procedures for disruptions and shutdowns.
 - s. Construction waste management.
 - t. Parking availability.
 - u. Office, work, and storage areas.
 - v. Equipment deliveries and priorities.
 - w. First aid.
 - x. Security.
 - y. Progress cleaning.
4. 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 that requires 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 Design Professional 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 problems.
 - k. Time schedules.
 - l. Weather limitations.
 - m. Manufacturer's written recommendations.
 - 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. Project Closeout Conference: Schedule and conduct a Project closeout conference, at a time convenient to Owner and Design Professional, but no later than 30 days prior to the scheduled date of Material Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.
 2. Attendees: Authorized representatives of Owner, Design Professional, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of record documents.
 - b. Procedures required prior to inspection for Material Completion and for final inspection for acceptance.
 - c. Submittal of written warranties.
 - d. Requirements for preparing operations and maintenance data.
 - e. Requirements for demonstration and training.
 - f. Preparation of Contractor's punch list.
 - g. Procedures for processing Applications for Payment at Material Completion and for final payment.
 - h. Submittal procedures.
 - i. Coordination of separate contracts.
 - j. Owner's partial occupancy requirements.
 - k. Installation of Owner's furniture, fixtures, and equipment.
 - l. Responsibility for removing temporary facilities and controls.
 4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- E. Owner/Design Professional/Contractor (OAC) Progress Meetings: Conduct OAC progress meetings at biweekly intervals.
1. Attendees: In addition to representatives of Owner and Design Professional, 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.
2. 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 utilization.
 - 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.
 3. 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 01 31 00

SECTION 01 32 00 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's Overall Project Schedule.
 - 2. Submittals Schedule.
 - 3. Daily construction reports.
 - 4. Material location reports.
 - 5. Field condition reports.
 - 6. Special reports.
 - 7. Construction photographs.
- B. Related Sections include the following:
 - 1. Division 1 Section "Project Management and Coordination" for submitting and distributing meeting and conference minutes.
 - 2. Division 1 Section "Submittal Procedures" for submitting schedules and reports.
 - 3. Division 1 Section "Quality Requirements" for submitting a schedule of tests and inspections.
 - 4. Division 1 Section "Closeout Procedures" for submitting photographic negatives as Project Record Documents at Project closeout.

1.3 SUBMITTALS

- A. Submittals Schedule: Submit three copies of schedule. Arrange the following information in a tabular format.
- B. Contractor's Overall Project Schedule: Refer to the General Condition of the Contract for progress scheduling.
- C. Construction Photographs: Submit two prints of each photographic view within five days of taking photographs.
 - 1. Format: 8-by-10-inch (203-by-254-mm) smooth-surface matte prints on single-weight commercial-grade stock, enclosed back to back in clear plastic sleeves that are punched for standard 3-ring binder. Digital camera images are acceptable.

2. Identification: On back of each print, provide an applied label or rubber-stamped impression with the following information:
 - a. Name of Project.
 - b. Name and address of photographer.
 - c. Name of Design Professional.
 - d. Name of Contractor.
 - e. Date photograph was taken.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 3. Submit a complete set of photographic images in electronic format on compact diskette as part of Project Record Documentation. Identify date photographs were taken.
- D. Daily Construction Reports: Submit two copies at bi-weekly intervals.
- E. Field Condition Reports: Submit two copies at time of discovery of differing conditions.
- F. Special Reports: Submit two copies at time of unusual event.

1.4 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Overall Project Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
 1. Secure time commitments for performing critical elements of the Work from parties involved.
 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
 2. Initial Submittal: Submit concurrently with preliminary network diagram. Include submittals required during the first 60 days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.

3. Schedule Updating: Revise the schedule after each meeting or other activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

2.2 CONTRACTOR'S OVERALL PROJECT SCHEDULE

- A. Refer to General Conditions Sections two and three for scheduling requirements.

2.3 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. High and low temperatures and general weather conditions.
 5. Accidents.
 6. Meetings and significant decisions.
 7. Unusual events (refer to special reports).
 8. Stoppages, delays, shortages, and losses.
 9. Meter readings and similar recordings.
 10. Emergency procedures.
 11. Orders and requests of the Fire Marshal.
 12. Change Orders received and implemented.
 13. Services connected and disconnected.
 14. Equipment or system tests and startups.
- B. Material Location Reports: At monthly intervals, prepare a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.
- C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare a detailed report. Submit with a request for information on CSI Form 13.2A, or similar approved form. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.4 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before the first of each month.
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. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate Actual Completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Design Professional, 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.

3.2 CONSTRUCTION PHOTOGRAPHS

- A. Photography: Digital.
- B. Date Stamp: Unless otherwise indicated, date and time stamp each photograph as it is being taken so stamp is integral to photograph.
- C. Preconstruction Photographs: Before starting construction, take twelve color photographs of Project site, existing Annex and surrounding properties from different vantage points, as directed by Design Professional. Show existing conditions adjacent to property.
- D. Periodic Construction Photographs: Take four color photographs monthly, coinciding with cutoff date associated with each Application for Payment. Photographer shall select vantage points to best show status of construction and progress since last photographs were taken.
1. Field Office Prints: Retain one set of prints of periodic photographs in field office at Project site, available at all times for reference. Identify photographs the same as for those submitted to Design Professional.

END OF SECTION 01 32 00

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.
- B. Related Sections include the following:
 - 1. Division 1 Section "Project Management and Coordination" for submitting Coordination Drawings.
 - 2. Division 1 Section "Construction Progress Documentation" for submitting schedules, reports and construction photographs.
 - 3. Division 1 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.
 - 4. Division 1 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
 - 5. Division 1 Section "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Design Professional's responsive action.
- B. Informational Submittals: Written information that does not require Design Professional's approval. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- A. General: Electronic copies of CAD Drawings of the Contract Drawings will be provided by Design Professional for Contractor's use in preparing submittals.
- 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. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Design Professional reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Design Professional's receipt of submittal.
 1. Initial Review: Allow 14 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Design Professional will advise Contractor when a submittal being processed must be delayed for coordination.
 2. If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Allow 14 days for processing each resubmittal.
 4. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- E. Identification: Place a permanent label or title block on each submittal for identification.
 1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 4 by 5 inches (100 by 125 mm) on label or beside title block to record Contractor's review and approval markings and action taken by Design Professional.
 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Design Professional.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.
 - j. Other necessary identification.
- F. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
- G. Additional Copies: Unless additional copies are required for final submittal, and unless Design Professional observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
 1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Design Professional.
- H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form inserted at the end of this Section or a similar approved form. Design Professional will return submittals, without review, received from sources other than Contractor.

1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Design Professional on previous submittals, and deviations from requirements of the Contract Documents, including minor variations and limitations. Include the same label information as the related submittal.
 2. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
 3. Transmittal Form: Prepare a draft of the transmittal form and send to the Design Professional for review. Provide locations on form for the following information:
 - a. Project name.
 - b. Date.
 - c. Destination (To:).
 - d. Source (From:).
 - e. Names of subcontractor, manufacturer, and supplier.
 - f. Category and type of submittal.
 - g. Submittal purpose and description.
 - h. Submittal and transmittal distribution record.
 - i. Remarks.
 - j. Signature of transmitter.
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Use only final submittals with mark indicating action taken by Design Professional in connection with construction.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
1. Number of Copies: Submit copies of each submittal, as follows, unless otherwise indicated:
 - a. Initial Submittal: Submit a preliminary single copy of each submittal where selection of options, color, pattern, texture, or similar characteristics is required. Design Professional will return submittal with options selected.
 - b. Final Submittal: Submit eight copies. Design Professional will retain one copy; one copy to Owner and one copy to each pertinent consultant; remainder will be returned to contractor. Mark up and retain one returned copy as a Project Record Document, for Owner on site.
 - c. Electronic submittal of items other than physical samples is acceptable.
- B. 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 printed data are not suitable 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 written recommendations.

- b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Standard color charts.
 - e. Manufacturer's catalog cuts.
 - f. Wiring diagrams showing factory-installed wiring.
 - g. Operational range diagrams.
 - h. Standard product operating and maintenance manuals.
 - i. Compliance with recognized trade association standards.
 - j. Compliance with recognized testing agency standards.
 - k. Application of testing agency labels and seals.
 - l. Notation of coordination requirements.
- C. 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: Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Shopwork manufacturing instructions.
 - g. Templates and patterns.
 - h. Schedules.
 - i. Design calculations where applicable.
 - j. Compliance with specified standards.
 - k. Notation of coordination requirements.
 - l. Notation of dimensions established by field measurement.
 - 2. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 - 3. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 30 by 40 inches (750 by 1000 mm).
 - 4. Number of Copies: Submit copies of each submittal, as follows:
 - a. Initial Submittal: Submit one correctable, translucent, reproducible print and one blue- or black-line print. Design Professional will return the reproducible print.
 - b. Final Submittal: Submit six blue- or black-line prints. Design Professional will retain one print; remainder will be returned. Mark up and retain one returned print as a Project Record Drawing, for Owner on site.
- D. Samples: Prepare physical units of materials or products, including the following:
- 1. Comply with requirements in Division 1 Section "Quality Requirements" for mockups.
 - 2. 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 for items not preselected.
 - 3. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from the same material to be used for the Work, cured and finished in manner specified, and

physically identical with the 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.

4. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Design Professional's sample where so indicated. Attach label on unexposed side that includes the following:
 - a. Generic description of Sample.
 - b. Product name or name of manufacturer.
 - c. Sample source.
 5. Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, provide the following:
 - a. Size limitations.
 - b. Compliance with recognized standards.
 - c. Availability.
 - d. Delivery time.
 6. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.
 - a. If variation in color, pattern, texture, or other characteristic is inherent in the product represented by a Sample, submit at least three sets of paired units that show approximate limits of the variations.
 - b. Refer to individual Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
 7. Number of Samples for Initial Selection: Submit one full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Design Professional will return submittal with options selected.
 8. Number of Samples for Verification: Submit three sets of Samples. Design Professional will retain one Sample set; remainder will be returned. Mark up and retain one returned Sample set as a Project Record Sample, for Owner on site.
 - a. Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 9. 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 not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
- E. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation."
- F. 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. Use CSI Form 1.5A inserted at the end of this Section or similar approved form. Include the following information in tabular form:

1. Name, address, and telephone number 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.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Design Professional.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, 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.

3.2 DESIGN PROFESSIONAL'S ACTION

- A. General: Design Professional will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Design Professional will review each submittal, make marks to indicate corrections or modifications required, and return it. Design Professional will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
 1. No exceptions taken.
 2. Exceptions noted. (Resubmissions (is) (is not) required.)
 3. Rejected. (Resubmission required.)
- C. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

END OF SECTION 01 33 00



SUBMITTAL TRANSMITTAL

Project: _____ Date: _____
A/E Project Number: _____

TRANSMITTAL A To (Contractor): _____ Date: _____ Submittal No. _____
From (Subcontractor): _____ By: _____ [] Resubmission

Table with 4 columns: Qty., Reference / Number, Title / Description / Manufacturer, Spec. Section Title and Paragraph / Drawing Detail Reference

- Submitted for review and approval
Resubmitted for review and approval
Complies with contract requirements
Will be available to meet construction schedule
A/E review time included in construction schedule
Substitution involved - Substitution request attached
If substitution involved, submission includes point-by-point comparative data or preliminary details
Items included in submission will be ordered immediately upon receipt of approval
Other remarks on above submission: [] One copy retained by sender

TRANSMITTAL B To (A/E): _____ Attn: _____ Date Rec'd by Contractor: _____
From (Contractor): _____ By: _____ Date Trnsmt'd by Contractor: _____

- Approved
Approved as noted
Revise / Resubmit
Rejected / Resubmit
Other remarks on above submission: [] One copy retained by sender

TRANSMITTAL C To (Contractor): _____ Attn: _____ Date Rec'd by A/E: _____
From (A/E): _____ [] Other By: _____ Date Trnsmt'd by A/E: _____

- Approved
Approved as noted
Not subject to review
No action required
Revise / Resubmit
Rejected / Resubmit
Approved as noted / Resubmit
Provide file copy with corrections identified
Sepia copies only returned
Point-by-point comparative data required to complete approval process
Submission Incomplete / Resubmit
Other remarks on above submission: [] One copy retained by sender

TRANSMITTAL D To (Subcontractor): _____ Attn: _____ Date Rec'd by Contractor: _____
From (Contractor): _____ By: _____ Date Trnsmt'd by Contractor: _____

Copies: [] Owner [] Consultants [] _____ [] _____ [] _____ [] One copy retained by sender

SECTION 01 40 00 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting 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.
- C. Requirements of this section relate to customized fabrication and installation procedures, not production of standard products.
 - 1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-control services required by Design Professional or Owner are not limited by provisions of this Section.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements. Services do not include contract enforcement activities performed by Design Professional.
- C. Mockups: Full-size, physical example assemblies to illustrate finishes and materials. Mockups are used to verify selections made under Sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples.
- D. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency. Mockups establish the standard by which the Work will be judged.

1.4 REGULATORY REQUIREMENTS

- A. Permits, Licenses, and Certificates: For Owner's records, 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.

1.5 QUALITY ASSURANCE

- A. 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.
- B. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- C. Installer Qualifications: A firm or individual experienced in installing, erecting, 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, and has been in business under the same name for more than (10) Ten years, and has been approved by the manufacturer of the product being installed. Installer shall have an office within 50 miles of the jobsite. Firm shall have an Experience Modification Rating of less than 1.0. Firm shall demonstrate five successful projects in the past five years within 100 miles of the job site.
- D. 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.
- 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 to those indicated for this Project in material, design, and extent.

1.6 QUALITY CONTROL

- A. The Owner will employ and pay a qualified independent testing agency to perform inspection and testing services.
- B. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Contractor's responsibility, the Contractor shall employ and pay a qualified independent testing agency to perform quality-control services. Costs for these services are included in the Contract Sum.
- C. Retesting: The Contractor is responsible for retesting where results of inspections, test or other quality-control services prove unsatisfactory and indicate noncompliance with Contract Document requirements, regardless of whether the original test was Contractor's responsibility.

1. The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility where required tests performed on original construction indicated noncompliance with Contract Document requirements.
- D. Associated Services: Cooperate with agencies performing required inspections, test, and similar services, and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to, the following:
 1. Provide access to the Work.
 2. Furnish incidental labor and facilities necessary to facilitate inspections and tests.
 3. Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.
 4. Provide security and protection of sample and test equipment at the Project Site.
- E. Duties of the Testing Agency: The independent agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Sections shall cooperate with the Design Professional and the Contractor in performance of the agency's duties. The testing agency shall provide qualified personnel to perform required inspections and tests.
 1. The agency shall notify the Design Professional and the Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. The agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents, or approve or accept any portion of the Work.
 3. The agency shall not perform any duties of the Contractor.
- F. Coordination: Coordinate the sequence of activities to accommodate required services with a minimum of delay. Coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
 1. The Contractor is responsible for scheduling times for inspections, test, taking samples, and similar activities.

1.7 SUBMITTALS

- A. The independent testing agency shall submit a certified written report, in duplicate, of each inspection, test, or similar service to the Design Professional. If the Contractor is responsible for the service, submit a certified written report, in duplicate, of each inspection, test, or similar service through the Contractor.
 1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
 2. Report Data: Written reports of each inspection, test or similar service include, but are not limited to, the following:
 - a. Date of issue.
 - b. Project title and number.
 - c. Name, address, and telephone number of testing agency.
 - d. Dates and locations of samples and tests or inspections.

- e. Names of individual making the inspections or test.
- f. Designation of the Work and test method.
- g. Identification of product and Specification Section.
- h. Complete inspection or test data.
- i. Test results and interpretation of test results.
- j. Ambient conditions at the time of sample taking and testing.
- k. Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.
- l. Name and signature of laboratory inspector.
- m. Recommendations on retesting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.
 - 2. Comply with the Contract Document requirements for Division 1 Section "Cutting and Patching."
- 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 01 40 00

SECTION 01 42 00 - REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Directed": A command or instruction by Design Professional. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- C. "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."
- D. "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.
- E. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- F. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- G. "Provide": Furnish and install, complete and ready for the intended use.
- H. "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.

1.3 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.

- 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.
- D. Abbreviations and Acronyms for Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

ADAAG	Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities Available from Access Board www.access-board.gov	(800) 872-2253 (202) 272-0080
CFR	Code of Federal Regulations Available from Government Printing Office www.access.gpo.gov/nara/cfr	(888) 293-6498 (202) 512-1530
CRD	Handbook for Concrete and Cement Available from Army Corps of Engineers Waterways Experiment Station www.wes.army.mil	(601) 634-2355
DOD	Department of Defense Military Specifications and Standards Available from Department of Defense Single Stock Point www.dodssp.daps.mil	(215) 697-6257
DSCC	Defense Supply Center Columbus (See FS)	
FED-STD	Federal Standard (See FS)	
FS	Federal Specification Available from Department of Defense Single Stock Point www.dodssp.daps.mil	(215) 697-6257
	Available from General Services Administration www.apps.fss.gsa.gov/pub/fedspecs/index.cfm	(202) 619-8925
	Available from National Institute of Building Sciences www.nibs.org	(202) 289-7800
FTMS	Federal Test Method Standard (See FS)	
MIL	See MILSPEC	

MS MIL	See MILSPEC	
MILSPEC	Military Specification and Standards Available from Department of Defense Single Stock Point www.dodssp.daps.mil	(215) 697-6257
UFAS	Uniform Federal Accessibility Standards Available from Access Board www.access-board.gov	(800) 872-2253 (202) 272-5434

1.4 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 Research's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."
- B. Industry Organizations: 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. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

AA	Aluminum Association, Inc. (The) www.aluminum.org	(202) 862-5100
AAADM	American Association of Automatic Door Manufacturers www.aaadm.com	(216) 241-7333
AABC	Associated Air Balance Council www.aabchq.com	(202) 737-0202
AAMA	American Architectural Manufacturers Association www.aamanet.org	(847) 303-5664
AASHTO	American Association of State Highway and Transportation Officials www.aashto.org	(202) 624-5800
AATCC	American Association of Textile Chemists and Colorists (The) www.aatcc.org	(919) 549-8141
ABMA	American Bearing Manufacturers Association www.abma-dc.org	(202) 367-1155
ACI	American Concrete Institute/ACI International	(248) 848-3700

	www.aci-int.org	
ACPA	American Concrete Pipe Association www.concrete-pipe.org	(972) 506-7216
AEIC	Association of Edison Illuminating Companies, Inc. (The) www.aeic.org	(205) 257-2530
AFPA	American Forest & Paper Association (See AF&PA)	
AF&PA	American Forest & Paper Association www.afandpa.org	(800) 878-8878 (202) 463-2700
AGA	American Gas Association www.aga.org	(202) 824-7000
AGC	Associated General Contractors of America (The) www.agc.org	(703) 548-3118
AHA	American Hardboard Association www.hardboard.org	(847) 934-8800
AHAM	Association of Home Appliance Manufacturers www.aham.org	(202) 872-5955
AI	Asphalt Institute www.asphaltinstitute.org	(859) 288-4960
AIA	American Institute of Architects (The) www.aia.org	(800) 242-3837 (202) 626-7300
AISC	American Institute of Steel Construction www.aisc.org	(800) 644-2400 (312) 670-2400
AISI	American Iron and Steel Institute www.steel.org	(202) 452-7100
AITC	American Institute of Timber Construction www.aitc-glulam.org	(303) 792-9559
ALCA	Associated Landscape Contractors of America www.alca.org	(800) 395-2522 (703) 736-9666
ALSC	American Lumber Standard Committee, Incorporated www.alsc.org	(301) 972-1700
AMCA	Air Movement and Control Association International, Inc. www.amca.org	(847) 394-0150
ANSI	American National Standards Institute	(202) 293-8020

	www.ansi.org	
AOSA	Association of Official Seed Analysts www.aosaseed.com	(505) 522-1437
APA	APA - The Engineered Wood Association www.apawood.org	(253) 565-6600
APA	Architectural Precast Association www.archprecast.org	(239) 454-6989
API	American Petroleum Institute www.api.org	(202) 682-8000
ARI	Air-Conditioning & Refrigeration Institute www.ari.org	(703) 524-8800
ARMA	Asphalt Roofing Manufacturers Association www.asphaltroofing.org	(202) 207-0917
ASCA	Architectural Spray Coaters Association www.ascassoc.com	(856) 848-6120
ASCE	American Society of Civil Engineers www.asce.org	(800) 548-2723 (703) 295-6300
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers www.ashrae.org	(800) 527-4723 (404) 636-8400
ASME	ASME International (The American Society of Mechanical Engineers International) www.asme.org	(800) 843-2763 (212) 591-7722
ASSE	American Society of Sanitary Engineering www.asse-plumbing.org	(440) 835-3040
ASTM	ASTM International (American Society for Testing and Materials International) www.astm.org	(610) 832-9585
AWCI	AWCI International (Association of the Wall and Ceiling Industries International) www.awci.org	(703) 534-8300
AWCMA	American Window Covering Manufacturers Association (See WCSC)	
AWI	Architectural Woodwork Institute www.awinet.org	(800) 449-8811 (703) 733-0600

AWPA	American Wood-Preservers' Association www.awpa.com	(817) 326-6300
AWS	American Welding Society www.aws.org	(800) 443-9353 (305) 443-9353
AWWA	American Water Works Association www.awwa.org	(800) 926-7337 (303) 794-7711
BHMA	Builders Hardware Manufacturers Association www.buildershardware.com	(212) 297-2122
BIA	Brick Industry Association (The) www.bia.org	(703) 620-0010
BIFMA	BIFMA International (Business and Institutional Furniture Manufacturer's Association International) www.bifma.com	(616) 285-3963
CCC	Carpet Cushion Council www.carpetcushion.org	(203) 637-1312
CCFSS	Center for Cold-Formed Steel Structures www.umn.edu/~ccfss	(573) 341-4471
CDA	Copper Development Association Inc. www.copper.org	(800) 232-3282 (212) 251-7200
CEA	Canadian Electricity Association www.canelect.ca	(514) 866-6121
CFFA	Chemical Fabrics & Film Association, Inc. www.chemicalfabricsandfilm.com	(216) 241-7333
CGA	Compressed Gas Association www.cganet.com	(703) 788-2700
CGSB	Canadian General Standards Board www.pwgsc.gc.ca/cgsb	(819) 956-0425
CIMA	Cellulose Insulation Manufacturers Association www.cellulose.org	(888) 881-2462 (937) 222-2462
CISCA	Ceilings & Interior Systems Construction Association www.cisca.org	(630) 584-1919
CISPI	Cast Iron Soil Pipe Institute www.cispi.org	(423) 892-0137
CLFMI	Chain Link Fence Manufacturers Institute	(301) 596-2583

	www.chainlinkinfo.org	
CPPA	Corrugated Polyethylene Pipe Association www.cppa-info.org	(800) 510-2772 (202) 462-9607
CRI	Carpet & Rug Institute (The) www.carpet-rug.com	(800) 882-8846 (706) 278-3176
CRSI	Concrete Reinforcing Steel Institute www.crsi.org	(847) 517-1200
CSA	CSA International (Formerly: IAS - International Approval Services) www.csa-international.org	(800) 463-6727 (416) 747-4000
CSI	Construction Specifications Institute (The) www.csinet.org	(800) 689-2900 (703) 684-0300
CSSB	Cedar Shake & Shingle Bureau www.cedarbureau.org	(604) 820-7700
CTI	Cooling Technology Institute (Formerly: Cooling Tower Institute) www.cti.org	(281) 583-4087
DHI	Door and Hardware Institute www.dhi.org	(703) 222-2010
EIA	Electronic Industries Alliance www.eia.org	(703) 907-7500
EIMA	EIFS Industry Members Association www.eima.com	(800) 294-3462 (770) 968-7945
EJCDC	Engineers Joint Contract Documents Committee www.asce.org	(800) 548-2723 (703) 295-6300
EJMA	Expansion Joint Manufacturers Association, Inc. www.ejma.org	(914) 332-0040
ESD	ESD Association	(315) 339-6937
FCI	Fluid Controls Institute www.fluidcontrolsinstitute.org	(216) 241-7333
FGMA	Flat Glass Marketing Association (See GANA)	
FM	Factory Mutual System (See FMG)	

FMG	FM Global (Formerly: FM - Factory Mutual System) www.fmglobal.com	(401) 275-3000
FRSA	Florida Roofing, Sheet Metal & Air Conditioning Contractors Association, Inc. www.floridarroof.com	(407) 671-3772
FSA	Fluid Sealing Association www.fluidsealing.com	(610) 971-4850
FSC	Forest Stewardship Council www.fscoax.org	(612) 353-4511
GA	Gypsum Association www.gypsum.org	(202) 289-5440
GANNA	Glass Association of North America (Formerly: FGMA - Flat Glass Marketing Association) www.glasswebsite.com	(785) 271-0208
GRI	Geosynthetic Research Institute www.drexel.edu/gri	(215) 895-2343
GTA	Glass Tempering Division of Glass Association of North America (See GANA)	
HI	Hydraulic Institute www.pumps.org	(888) 786-7744 (973) 267-9700
HI	Hydronics Institute www.gamanet.org	(908) 464-8200
HMMA	Hollow Metal Manufacturers Association (See NAAMM)	
HPVA	Hardwood Plywood & Veneer Association www.hpva.org	(703) 435-2900
HPW	H. P. White Laboratory, Inc. www.hpwhite.com	(410) 838-6550
IAS	International Approval Services (See CSA)	
ICEA	Insulated Cable Engineers Association, Inc. www.icea.net	(770) 830-0369
ICRI	International Concrete Repair Institute, Inc. www.icri.org	(847) 827-0830

IEEE	Institute of Electrical and Electronics Engineers, Inc. (The) www.ieee.org	(212) 419-7900
IESNA	Illuminating Engineering Society of North America www.iesna.org	(212) 248-5000
IGCC	Insulating Glass Certification Council www.igcc.org	(315) 646-2234
IGMA	Insulating Glass Manufacturers Alliance (The) www.igmaonline.org	(613) 233-1510
ILI	Indiana Limestone Institute of America, Inc. www.iliai.com	(812) 275-4426
ISSFA	International Solid Surface Fabricators Association www.issfa.net	(702) 567-8150
ITS	Intertek Testing Services www.itsglobal.com	(800) 345-3851 (607) 753-6711
IWS	Insect Screening Weavers Association (Now defunct)	
KCMA	Kitchen Cabinet Manufacturers Association www.kcma.org	(703) 264-1690
LMA	Laminating Materials Association www.lma.org	(201) 664-2700
LPI	Lightning Protection Institute www.lightning.org	(800) 488-6864 (847) 577-7200
LSGA	Laminated Safety Glass Association (See GANA)	
MBMA	Metal Building Manufacturers Association www.mbma.com	(216) 241-7333
MFMA	Maple Flooring Manufacturers Association www.maplefloor.org	(847) 480-9138
MFMA	Metal Framing Manufacturers Association www.metalframingmfg.org	(312) 644-6610
MH	Material Handling Industry of America (See MHIA)	
MHIA	Material Handling Industry of America www.mhia.org	(800) 345-1815 (704) 676-1190

MIA	Marble Institute of America www.marble-institute.com	(440) 250-9222
MPI	Master Painters Institute www.paintinfo.com	(888) 674-8937
MSS	Manufacturers Standardization Society of The Valve and Fittings Industry Inc. www.mss-hq.com	(703) 281-6613
NAAMM	National Association of Architectural Metal Manufacturers www.naamm.org	(312) 332-0405
NAAMM	North American Association of Mirror Manufacturers (See GANA)	
NACE	NACE International (National Association of Corrosion Engineers International) www.nace.org	(281) 228-6200
NADCA	National Air Duct Cleaners Association www.nadca.com	(202) 737-2926
NAIMA	North American Insulation Manufacturers Association (The) www.naima.org	(703) 684-0084
NAMI	National Accreditation and Management Institute, Inc.	(304) 258-5100
NBGQA	National Building Granite Quarries Association, Inc. www.nbgqa.com	(800) 557-2848
NCMA	National Concrete Masonry Association www.ncma.org	(703) 713-1900
NCPI	National Clay Pipe Institute www.ncpi.org	(262) 248-9094
NCTA	National Cable & Telecommunications Association www.ncta.com	(202) 775-3550
NEBB	National Environmental Balancing Bureau www.nebb.org	(301) 977-3698
NECA	National Electrical Contractors Association www.necanet.org	(301) 657-3110
NeLMA	Northeastern Lumber Manufacturers' Association www.nelma.org	(207) 829-6901
NEMA	National Electrical Manufacturers Association	(703) 841-3200

	www.nema.org	
NETA	InterNational Electrical Testing Association www.netaworld.org	(303) 697-8441
NFPA	NFPA International (National Fire Protection Association International) www.nfpa.org	(800) 344-3555 (617) 770-3000
NFRC	National Fenestration Rating Council www.nfrc.org	(301) 589-1776
NGA	National Glass Association www.glass.org	(703) 442-4890
NHLA	National Hardwood Lumber Association www.natlhardwood.org	(800) 933-0318 (901) 377-1818
NLGA	National Lumber Grades Authority www.nlga.org	(604) 524-2393
NOFMA	National Oak Flooring Manufacturers Association www.nofma.org	(901) 526-5016
NRCA	National Roofing Contractors Association www.nrca.net	(800) 323-9545 (847) 299-9070
NRMCA	National Ready Mixed Concrete Association www.nrmca.org	(888) 846-7622 (301) 587-1400
NSF	NSF International (National Sanitation Foundation International) www.nsf.org	(800) 673-6275 (734) 769-8010
NSSGA	National Stone, Sand & Gravel Association www.nssga.org	(800) 342-1415 (703) 525-8788
NTMA	National Terrazzo and Mosaic Association, Inc. www.ntma.com	(800) 323-9736 (703) 779-1022
NTRMA	National Tile Roofing Manufacturers Association (See RTI)	
NWWDA	National Wood Window and Door Association (See WDMA)	
OPL	Omega Point Laboratories, Inc. www.opl.com	(800) 966-5253 (210) 635-8100
PCI	Precast/Prestressed Concrete Institute www.pci.org	(312) 786-0300

PDCA	Painting and Decorating Contractors of America www.pdca.com	(800) 332-7322 (703) 359-0826
PDI	Plumbing & Drainage Institute www.pdionline.org	(800) 589-8956 (508) 230-3516
PGI	PVC Geomembrane Institute www.pgi-tp.ce.uiuc.edu	(217) 333-3929
RCSC	Research Council on Structural Connections www.boltcouncil.org	(800) 644-2400 (312) 670-2400
RFCI	Resilient Floor Covering Institute www.rfci.com	Contact by mail only
RIS	Redwood Inspection Service www.calredwood.org	(888) 225-7339 (415) 382-0662
RTI	Roof Tile Institute (Formerly: NTRMA - National Tile Roofing Manufacturers Association) www.ntrma.org	(541) 689-0366
SAE	SAE International www.sae.org	(724) 776-4841
SDI	Steel Deck Institute www.sdi.org	(847) 462-1930
SDI	Steel Door Institute www.steeldoor.org	(440) 899-0010
SEFA	Scientific Equipment and Furniture Association www.sefalabfurn.com	(516) 294-5424
SGCC	Safety Glazing Certification Council www.sgcc.org	(315) 646-2234
SIA	Security Industry Association www.siaonline.org	(703) 683-2075
SIGMA	Sealed Insulating Glass Manufacturers Association (See IGMA)	
SJI	Steel Joist Institute www.steeljoist.org	(843) 626-1995
SMA	Screen Manufacturers Association	(561) 533-0991

SMACNA	Sheet Metal and Air Conditioning Contractors' National Association www.smacna.org	(703) 803-2980
SMPTE	Society of Motion Picture and Television Engineers www.smpte.org	(914) 761-1100
SPFA	Spray Polyurethane Foam Alliance (Formerly: SPI/SPFD - The Society of the Plastics Industry, Inc.; Spray Polyurethane Foam Division) www.sprayfoam.org	(800) 523-6154
SPIB	Southern Pine Inspection Bureau (The) www.spib.org	(850) 434-2611
SPI/SPFD	Society of the Plastics Industry, Inc. (The) Spray Polyurethane Foam Division (See SPFA)	
SPRI	SPRI (Single Ply Roofing Institute) www.spri.org	(781) 647-7026
SSINA	Specialty Steel Industry of North America www.ssina.com	(800) 982-0355 (202) 342-8630
SSPC	SSPC: The Society for Protective Coatings www.sspc.org	(877) 281-7772 (412) 281-2331
STI	Steel Tank Institute www.steeltank.com	(847) 438-8265
SWI	Steel Window Institute www.steelwindows.com	(216) 241-7333
SWRI	Sealant, Waterproofing, & Restoration Institute www.swrionline.org	(816) 472-7974
TCA	Tile Council of America, Inc. www.tileusa.com	(864) 646-8453
TIA/EIA	Telecommunications Industry Association/Electronic Industries Alliance www.tiaonline.org	(703) 907-7700
TMS	The Masonry Society www.masonrysociety.org	(303) 939-9700
TPI	Truss Plate Institute, Inc. www.tpinst.org	(608) 833-5900

TPI	Turfgrass Producers International www.turfgrassod.org	(800) 405-8873 (847) 705-9898
UL	Underwriters Laboratories Inc. www.ul.com	(800) 704-4050 (847) 272-8800
UNI	Uni-Bell PVC Pipe Association www.uni-bell.org	(972) 243-3902
USITT	United States Institute for Theatre Technology, Inc. www.usitt.org	(800) 938-7488 (315) 463-6463
WASTEC	Waste Equipment Technology Association www.wastec.org	(800) 424-2869 (202) 244-4700
WCLIB	West Coast Lumber Inspection Bureau www.wclib.org	(800) 283-1486 (503) 639-0651
WCMA	Window Covering Manufacturers Association (See WCSC)	
WCSC	Window Covering Safety Council (Formerly: WCMA - Window Covering Manufacturers Association) www.windowcoverings.org	(800) 506-4636 (212) 661-4261
WDMA	Window & Door Manufacturers Association (Formerly: NWWDA - National Wood Window and Door Association) www.wdma.com	(800) 223-2301 (847) 299-5200
WIC	Woodwork Institute of California www.wicnet.org	(916) 372-9943
WMMPA	Wood Moulding & Millwork Producers Association www.wmmpa.com	(800) 550-7889 (530) 661-9591
WSRCA	Western States Roofing Contractors Association www.wsrca.com	(800) 725-0333 (650) 548-0112
WWPA	Western Wood Products Association www.wwpa.org	(503) 224-3930

- C. 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. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

BOCA	BOCA International, Inc. www.bocai.org	(708) 799-2300
CABO	Council of American Building Officials (See ICC)	
IAPMO	International Association of Plumbing and Mechanical Officials (The) www.iapmo.org	(909) 595-8449
ICBO	International Conference of Building Officials www.icbo.org	(800) 284-4406 (562) 699-0541
ICBO ES	ICBO Evaluation Service, Inc. www.icbo.org/ICBO_ES/	(800) 423-6587
ICC	International Code Council, Inc. (Formerly: CABO - Council of American Building Officials) www.intlcode.org	(703) 931-4533
SBCCI	Southern Building Code Congress International, Inc. www.sbcci.org	(205) 591-1853

D. Federal Government 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. Names, telephone numbers, and Web-site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

CE	Army Corps of Engineers www.usace.army.mil	
CPSC	Consumer Product Safety Commission www.cpsc.gov	(800) 638-2772 (301) 504-0990
DOC	Department of Commerce www.doc.gov	(202) 482-2000
EPA	Environmental Protection Agency www.epa.gov	(202) 260-2090
FAA	Federal Aviation Administration www.faa.gov	(202) 366-4000
FDA	Food and Drug Administration www.fda.gov	(888) 463-6332
GSA	General Services Administration www.gsa.gov	(202) 708-5082

HUD	Department of Housing and Urban Development www.hud.gov	(202) 708-1112
LBL	Lawrence Berkeley Laboratory (See LBNL)	
LBNL	Lawrence Berkeley National Laboratory www.lbl.gov	(510) 486-5605
NCHRP	National Cooperative Highway Research Program (See TRB)	
NIST	National Institute of Standards and Technology www.nist.gov	(301) 975-6478
OSHA	Occupational Safety & Health Administration www.osha.gov	(800) 321-6742 (202) 693-1999
PBS	Public Building Service (See GSA)	
RUS	Rural Utilities Service (See USDA)	(202) 720-9540
SD	State Department www.state.gov	(202) 647-4000
TRB	Transportation Research Board www.nas.edu/trb	(202) 334-2934
USDA	Department of Agriculture www.usda.gov	(202) 720-2791
USPS	Postal Service www.usps.com	(202) 268-2000

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 42 00

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

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

1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to Design Professional, testing agencies, and authorities having jurisdiction.
- B. Sewer Service: Pay sewer service use charges for sewer usage by all entities for construction operations.
- C. Water Service: Pay water service use charges for water used by all entities for construction operations.
- D. Electric Power Service: Pay electric power service use charges for electricity used by all entities for construction operations.

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.

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 MATERIALS

- A. Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top rails.
- B. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10 mils (0.25 mm) minimum thickness, with flame-spread rating of 15 or less per ASTM E 84.
- C. Dust Control Adhesive-Surface Walk-off Mats: Provide mats minimum 36 by 60 inches (914 by 1624 mm).

2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

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 and Owner to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
- C. Water Service: Existing Water Service may be used.

- D. Sanitary Facilities: Provide temporary toilets, wash 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.
- E. Electric Power Service: Existing Electric Power service may be used.
- F. Telephone Service: Provide superintendent with cellular telephone.

3.3 SUPPORT FACILITIES INSTALLATION

- A. Use of existing roads and paved parking areas will be permitted. Contractor is responsible for maintaining current conditions of existing pavement and repair all damages.
- B. Traffic Controls: Comply with requirements of authorities having jurisdiction.
- C. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with Division 01 Section "Execution" for progress cleaning requirements.
- D. 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. 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.
- B. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- C. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
- D. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.
 - 1. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 - 2. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

3.5 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. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Material Completion.
- C. 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 Material 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 Material Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 01 Section "Closeout Procedures."

END OF SECTION 01 50 00

SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following administrative and procedural requirements: selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products and special warranties.
- B. Related Sections include the following:
 - 1. Division 1 Section "Alternates" for products selected under an alternate.
 - 2. Division 1 Section "References" for applicable industry standards for products specified.
 - 3. Division 1 Section "Closeout Procedures" for submitting warranties for contract closeout.
 - 4. Divisions 2 through 33 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

- A. Products: Items purchased 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. Products salvaged or recycled from other projects are not considered new products.
- B. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
- C. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

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. Comply with manufacturer's written instructions.

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
5. Store products to allow for inspection and measurement of quantity or counting of units.
6. Store materials in a manner that will not endanger Project structure.
7. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
8. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
9. Protect stored products from damage.

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.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
- C. Submittal Time: Comply with requirements in Division 1 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT OPTIONS

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and 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. Where products are accompanied by the term "match sample," sample to be matched is Design Professional's.
 4. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.

- B. Product Selection Procedures: Procedures for product selection include the following:
1. Manufacturer/Source: Where Specification paragraphs or subparagraphs titled "Manufacturer" or "Source" name single manufacturers or sources, provide a product by the manufacturer or from the source named that complies with requirements.
 2. Products: Where Specification paragraphs or subparagraphs titled "Products" introduce a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
 3. Manufacturers: Where Specification paragraphs or subparagraphs titled "Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 60 00

SECTION 01 73 00 - EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 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. Coordination of Owner-installed products.
 - 4. Progress cleaning.
 - 5. Starting and adjusting.
 - 6. Protection of installed construction.
 - 7. Correction of the Work.

1.3 DEFINITIONS

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

1.4 INFORMATIONAL SUBMITTALS

- A. Cutting and Patching Plan: Submit plan describing procedures at least 10 days prior to the time cutting and patching will be performed. Include the following information:
 - 1. Extent: Describe reason for and extent of each occurrence of cutting and patching.
 - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.
 - 3. Products: List products to be used for patching and firms or entities that will perform patching work.
 - 4. Dates: Indicate when cutting and patching will be performed.

5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate how long services and systems will be disrupted.

B. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

1.5 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, notify Design Professional of locations and details of cutting and await directions from the Design Professional before proceeding. Shore, brace, and support structural element 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 Design Professional's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

B. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

1.6 WARRANTY

A. 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.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. 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 the Design Professional for the visual and functional performance of in-place materials.

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. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a. Description of the Work.
 - b. List of detrimental conditions, including substrates.
 - c. List of unacceptable installation tolerances.
 - d. Recommended corrections.
 - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 3. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation, if applicable.
 - 4. Examine roofs for suitable conditions where products and systems are to be installed.
 - 5. 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. 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 caused by differing field conditions outside the control of the Contractor, submit a request for information to Design Professional according to requirements in Division 01 Section "Project Management and Coordination."

3.3 INSTALLATION

- A. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- B. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Material Completion.
- C. 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.
- D. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- E. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- F. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.4 CUTTING AND PATCHING

- A. Cutting and Patching, 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. Temporary Support: Provide temporary support of work to be cut.
- C. 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.
- D. 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. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.
 5. 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.
 6. Proceed with patching after construction operations requiring cutting are complete.
- E. 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. 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 minimize 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. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 4. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- F. 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. General: 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 (27 deg C).
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

- a. Utilize containers intended for holding waste materials of type to be stored.
 4. Coordinate progress cleaning for joint-use areas where more than one installer has worked.
 - 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 in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Material Completion.
 - G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.
 - 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 Material 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 assure 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 STARTING AND ADJUSTING
- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
 - B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.

- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: Comply with qualification requirements in Division 01 Section "Quality Requirements."

3.7 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Material Completion.

3.8 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. 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. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 01 73 00



REQUEST FOR INTERPRETATION

Project: _____ R.F.I. Number: _____
 _____ From: _____
 To: _____ Date: _____
 _____ A/E Project Number: _____
 Re: _____ Contract For: _____

Specification Section: _____ Paragraph: _____ Drawing Reference: _____ Detail: _____

Request:

Signed by:

Response:

Attachments

Response From: _____ To:Date _____ Rec'd: _____ Date Ret'd: _____

Signed by: _____ Date: _____

Copies: Owner Consultants _____ _____ _____ _____ File

SECTION 01 74 20 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for the following:
 - 1. Recycling non-hazardous demolition and construction waste.
 - 2. Salvaging nonhazardous demolition and construction waste.
 - 3. Disposing of non-hazardous demolition construction waste.

1.2 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- C. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.

1.3 SUBMITTALS

- A. Waste Management Plan: Submit for approval 3 copies of plan within 7 days of date established for the Proceed Order.

1.4 QUALITY ASSURANCE

- A. Waste Management Conference: Conduct conference at Project site.

1.5 WASTE MANAGEMENT PLAN

- A. General: Develop plan consisting of waste identification and waste reduction work plan. Include separate sections in plan for demolition and construction waste. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of demolition and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
 - 1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
 - 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.

3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.

D. Forms: Prepare waste management plan on forms satisfactory to the Design Professional.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement waste management plan as approved by Design Professional. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
 1. Distribute waste management plan to everyone concerned within three days of submittal.
 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- D. 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, recycled, reused, donated, and sold.
 2. Comply with Division 01 Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.2 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Reuse in the Work:
 1. Clean salvaged items.
 2. Pack or crate items after cleaning. Identify contents of containers.
 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.
- B. Salvaged Items for Sale or Donation: Not permitted on Project site.

3.3 RECYCLING CONSTRUCTION WASTE

- A. Packaging:
 - 1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
 - 2. Polystyrene Packaging: Separate and bag materials.
 - 3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
 - 4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

3.4 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, 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.
- C. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION 01 74 20

SECTION 01 77 00 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Material Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
- B. Related Sections:
 - 1. Division 01 Section "Execution" for progress cleaning of Project site.
 - 2. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 3. Division 01 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
 - 4. Division 01 Section "Demonstration and Training" for requirements for instructing Owner's personnel.
 - 5. Divisions 02 through 33 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 MATERIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Material Completion, complete the following. List items below that are incomplete with request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

5. Prepare and submit Project Record Documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 8. Complete startup testing of systems.
 9. Submit test/adjust/balance records.
 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 11. Advise Owner of changeover in heat and other utilities.
 12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
 13. Complete final cleaning requirements, including touchup painting.
 14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for Notice of Readiness for inspection for Material Completion. On receipt of request, Design Professional will either proceed with inspection or notify Contractor of unfulfilled requirements. Design Professional will prepare the Certificate of Material Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Design Professional, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request Notification of Readiness for interim inspection for punch list completion when the Work identified in previous inspections as incomplete is completed or corrected, but not more than 30 days after Material Completion.
 2. Results of completed inspection will form the basis of requirements for final completion.

1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to "Construction Contract Between Owner and Contractor". Submit certified copy of Design Professional's Material Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Design Professional. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 2. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 3. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Design Professional will either proceed with inspection or notify Contractor of unfulfilled requirements. Design Professional 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.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- 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. Use CSI Form 14.1A.
1. Organize items applying to each space by major element, Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Design Professional.
 - d. Name of Contractor.
 - e. Page number.
 2. Submit list of incomplete items in the following format:
 - a. PDF electronic file.

1.6 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Design Professional for designated portions of the Work where commencement of warranties other than date of Material Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
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 (215-by-280-mm) paper.
 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.

4. Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.
- D. 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. General: 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 Material Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. 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.
 - f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - g. Sweep concrete floors broom clean in unoccupied spaces.
 - h. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.

- i. Remove labels that are not permanent.
 - j. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates.
 - k. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - l. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
 - m. Leave Project clean and ready for occupancy.
- C. Construction Waste Disposal: Comply with waste disposal requirements in Division 01 Section "Temporary Facilities and Controls."

END OF SECTION 01 77 00



PUNCH LIST

Project: _____

From (A/E): _____

Site Visit Date: _____

To (Contractor): _____

A/E Project Number: _____

Contract For: _____

The following items require the attention of the Contractor for completion or correction. This list may not be all-inclusive, and the failure to include any items on this list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Item Number	Room Number	Location (Area)	Description	Correction/Completion Date	Verification A/E Check
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Attachments

Signed by: _____ Date: _____

Copies: Owner Consultants _____ _____ _____ _____ _____ _____ _____ File

SECTION 01 78 23 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
 - 1. Operation and maintenance documentation directory.
 - 2. Emergency manuals.
 - 3. Product maintenance manuals.
- B. Related Sections:
 - 1. Division 01 Section "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
 - 2. Divisions 02 through 33 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual specification sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Where applicable, clarify and update reviewed manual content to correspond to modifications and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:
 - 1. PDF electronic file. Assemble each manual into a composite electronically-indexed file. Submit on digital media acceptable to Design Professional.
 - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically-linked operation and maintenance directory.
 - b. Enable inserted reviewer comments on draft submittals.
 - 2. Three paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Design Professional will return two copies.
- C. Initial Manual Submittal: Submit draft copy of each manual at least 30 days before commencing demonstration and training. Design Professional will comment on whether general scope and content of manual are acceptable.
- D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Material Completion and at least 15 days before commencing demonstration and training. Design Professional will return copy with comments.
 - 1. Correct or modify each manual to comply with Design Professional's comments. Submit copies of each corrected manual within 15 days of receipt of Design Professional's comments and prior to commencing demonstration and training.

PART 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Organization: Include a section in the directory for each of the following:
 - 1. List of documents.
 - 2. List of systems.
 - 3. List of equipment.
 - 4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- 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.

2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization: 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 Design Professional.
 - 7. Names and contact information for major consultants to the Design Professional 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.
 - 1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- 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. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
 - 1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 - 2. File Names and Bookmarks: Enable bookmarking of individual documents based upon file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel upon opening file.
- F. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
 - 1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (215-by-280-mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
 - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.
 - 2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
 - 3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
 - 4. Supplementary Text: Prepared on 8-1/2-by-11-inch (215-by-280-mm) white bond paper.
 - 5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.

- a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
- b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.3 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
 1. Type of emergency.
 2. Emergency instructions.
 3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
 1. Water leak.
 2. System, subsystem, or equipment failure.

2.4 PRODUCT MAINTENANCE MANUALS

- A. 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.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- 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.

2.5 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
 - 1. Standard maintenance instructions and bulletins.
 - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3. Identification and nomenclature of parts and components.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
 - 1. Test and inspection instructions.
 - 2. Troubleshooting guide.
 - 3. Precautions against improper maintenance.
 - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
 - 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 - 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.

- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. 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 3 - EXECUTION

3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- C. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
- D. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
 - 1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- E. Comply with Division 01 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 01 78 23

01 78 39 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
 - 4. Miscellaneous record submittals.
- B. Related Sections:
 - 1. Division 01 Section "Execution" for final property survey.
 - 2. Division 01 Section "Closeout Procedures" for general closeout procedures.
 - 3. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
 - 4. Divisions 02 through 33 Sections for specific requirements for project record documents of the Work in those Sections.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit one set of marked-up record prints.
 - 2. Number of Copies: Submit copies of record Drawings as follows:
 - a. Final Submittal: Submit one paper copy set of marked-up record prints. Print each Drawing, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit three paper copies of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit three paper copies of each submittal.
 - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.

- D. Miscellaneous Record Submittals: Refer to other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit three paper copies of each submittal.
- E. Reports: Submit written report indicating items incorporated in Project record documents concurrent with progress of the Work, including modifications, concealed conditions, field changes, product selections, and other notations incorporated.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings.
 - 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 archive 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. Revisions to electrical circuitry.
 - d. Actual equipment locations.
 - e. Changes made by Change Order.
 - f. Changes made following Design Professional's written orders.
 - g. Details not on the original Contract Drawings.
 - h. Field records for variable and concealed conditions.
 - i. Record information on the Work that is shown only schematically.
 - 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Utilize personnel proficient at recording graphic information in production of marked-up record prints.
 - 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 - 6. Note alternate numbers, Change Order numbers, and similar identification, where applicable.

- B. Record Digital Data Files: Immediately before inspection for Certificate of Material Completion, review marked-up record prints with Design Professional.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 - 4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 - 5. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as paper copy.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as paper copy.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as paper copy.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and modifications to project record documents as they occur; do not wait until the end of Project.

- B. Maintenance of Record Documents and Samples: Store record documents and Samples 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 Design Professional's reference during normal working hours.

END OF SECTION 01 78 39

SECTION 05 40 00 - COLD-FORMED METAL FRAMING (ALTERNATE 1)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Wall Furring.
- B. Related Sections include the following:
 - 1. Division 07 Section "Manufactured Roof, Fascia and Soffit Panels" for wall panels.

1.3 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide cold-formed metal framing capable of withstanding design loads within limits and under conditions indicated.
 - 1. Design Loads: See design criteria in structural drawings.
 - 2. Design framing systems to provide for movement of framing members without damage or overstressing, sheathing failure, connection failure, undue strain on fasteners and anchors, or other detrimental effects when subject to a maximum ambient temperature change of 120 deg F (67 deg C).
- B. Cold-Formed Steel Framing, General: Design according to AISI's "Standard for Cold-Formed Steel Framing - General Provisions."

1.4 SUBMITTALS

- A. Product Data: For each type of cold-formed metal framing product and accessory indicated.
- B. Product Test Reports: From a qualified testing agency, unless otherwise stated, indicating that each of the following complies with requirements, based on evaluation of comprehensive tests for current products:
 - 1. Steel sheet.
 - 2. Expansion anchors.

3. Power-actuated anchors.
4. Mechanical fasteners.
5. Vertical deflection clips.
6. Horizontal drift deflection clips
7. Miscellaneous structural clips and accessories.

1.5 QUALITY ASSURANCE

- A. Product Tests: Mill certificates or data from a qualified independent testing agency, or in-house testing with calibrated test equipment indicating steel sheet complies with requirements, including base-metal thickness, yield strength, tensile strength, total elongation, chemical requirements, ductility, and metallic-coating thickness.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect cold-formed metal framing from corrosion, deformation, and other damage during delivery, storage, and handling.
- B. Store cold-formed metal framing, protect with a waterproof covering, and ventilate to avoid condensation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering cold-formed metal framing that may be incorporated into the Work include the following:
 1. AllSteel Products, Inc.
 2. California Expanded Metal Products Company.
 3. ClarkDietrich Building Systems.
 4. Consolidated Fabricators Corp.; Building Products Division.
 5. Craco Metals Manufacturing, LLC.
 6. Custom Stud, Inc.
 7. Formetal Co. Inc. (The).
 8. Innovative Steel Systems.
 9. MarinoWare; a division of Ware Industries.
 10. SCAFCO Corporation.
 11. Southeastern Stud & Components, Inc.
 12. Steel Construction Systems.
 13. Steeler, Inc.
 14. Super Stud Building Products, Inc.
 15. United Metal Products, Inc.

2.2 MATERIALS

- A. Recycled Content of Steel Products: Provide products with an average recycled content of steel products so postconsumer recycled content plus one-half of preconsumer recycled content is not less than 25 percent.
- B. Steel Sheet: ASTM A 1003/A 1003M, Structural Grade, Type H, metallic coated, of grade and coating weight as follows:
 - 1. Grade: As required by structural performance.
 - 2. Coating: G60 (Z180) minimum.

2.3 FURRING

- A. Furring: Manufacturer's standard hat-shaped steel sections, of depths indicated, unpunched.
 - 1. Minimum Base-Metal Thickness: As required by structural performance, 20 gauge minimum.

2.4 FRAMING ACCESSORIES

- A. Fabricate steel-framing accessories from steel sheet, ASTM A 1003/A 1003M, Structural Grade, Type H, metallic coated, of same grade and coating weight used for framing members.
- B. Provide accessories of manufacturer's standard thickness and configuration, unless otherwise indicated, as follows:
 - 1. End clips.

2.5 ANCHORS, CLIPS, AND FASTENERS

- A. Steel Shapes and Clips: ASTM A 36/A 36M, zinc coated by hot-dip process according to ASTM A 123/A 123M.
- B. Power-Actuated Anchors: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with capability to sustain, without failure, a load equal to 10 times design load, as determined by testing per ASTM E 1190 conducted by a qualified independent testing agency.
- C. Mechanical Fasteners: ASTM C 1513, corrosion-resistant-coated, self-drilling, self-tapping steel drill screws designed for use in masonry.
 - 1. Head Type: Manufacturer's standard.

2.6 MISCELLANEOUS MATERIALS

- A. Galvanizing Repair Paint: SSPC-Paint 20 ASTM A 780.

2.7 FABRICATION

- A. Fabricate cold-formed metal framing and accessories plumb, square, and true to line, and with connections securely fastened, according to referenced AISI's specifications and standards, manufacturer's written instructions, and requirements in this Section.
 - 1. Fabricate framing assemblies using jigs or templates.
 - 2. Cut framing members by sawing or shearing; do not torch cut.
 - 3. Fasten other materials to cold-formed metal framing by screw fastening, according to Shop Drawings.
- B. Fabrication Tolerances: Fabricate assemblies level, plumb, and true to line to a maximum allowable tolerance variation of 1/8 inch in 10 feet and as follows:
 - 1. Spacing: Space individual framing members no more than plus or minus 1/8 inch from plan location. Cumulative error shall not exceed minimum fastening requirements of sheathing or other finishing materials.
 - 2. Squareness: Fabricate each cold-formed metal framing assembly to a maximum out-of-square tolerance of 1/8 inch.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine supporting substrates and abutting structural framing for compliance with requirements for installation tolerances and other conditions affecting performance.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Install cold-formed metal framing according to ASTM C 1007 and ASI's "Standard for Cold-Formed Steel Framing - General Provisions" and to manufacturer's written instructions unless more stringent requirements are indicated.
- B. Install shop- or field-fabricated, cold-formed framing and securely anchor to supporting structure.
- C. Install cold-formed metal framing and accessories plumb, square, and true to line, and with connections securely fastened.
 - 1. Cut framing members by sawing or shearing; do not torch cut.
 - 2. Fasten cold-formed metal framing members by screw fastening, or powder actuated fasteners. Wire tying of framing members is not permitted.
 - a. Locate mechanical fasteners and install complying with requirements for spacing, edge distances, and penetration.

- D. Do not bridge building expansion and control joints with cold-formed metal framing. Independently frame both sides of joints.
- E. Install insulation, specified in Division 07 Section "Thermal Insulation," in built-up exterior framing members, such as headers, sills, boxed joists, and multiple studs at openings, that are inaccessible on completion of framing work.
- F. Fasten hole reinforcing plate over web penetrations that exceed size of manufacturer's standard punched openings.
- G. Erection Tolerances: Install cold-formed metal framing level, plumb, and true to line to a maximum allowable tolerance variation of 1/8 inch in 10 feet and as follows:
 - 1. Space individual framing members no more than plus or minus 1/8 inch from plan location. Cumulative error shall not exceed minimum fastening requirements of sheathing or other finishing materials.

3.3 REPAIRS AND PROTECTION

- A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on fabricated and installed cold-formed metal framing with galvanized repair paint according to ASTM A 780 and manufacturer's written instructions.
- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that cold-formed metal framing is without damage or deterioration at time of Material Completion.

END OF SECTION 05 40 00

SECTION 06 10 53 - MISCELLANEOUS ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Wood blocking, cants, and nailers.
 - 2. Plywood sheathing.

1.3 DEFINITIONS

- A. Dimension Lumber: Lumber of 2 inches nominal or greater but less than 5 inches nominal in least dimension.
- B. Lumber grading agencies, and the abbreviations used to reference them, include the following:
 - 1. NeLMA: Northeastern Lumber Manufacturers' Association.
 - 2. NLGA: National Lumber Grades Authority.
 - 3. SPIB: The Southern Pine Inspection Bureau.
 - 4. WCLIB: West Coast Lumber Inspection Bureau.
 - 5. WWPA: Western Wood Products Association.
- C. Research/Evaluation Reports: For the following, showing compliance with building code in effect for Project:
 - 1. Preservative-treated wood.
 - 2. Metal framing anchors.

1.4 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
 - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
 - 2. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
 - 3. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.
- B. Deliver interior wood materials that are to be exposed to view only after building is enclosed and weatherproof, wet work other than painting is dry, and HVAC system is operating and maintaining temperature and humidity at occupancy levels.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
 - 1. Factory mark each piece of lumber with grade stamp of grading agency.
 - 2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
 - 3. Provide dressed lumber, S4S, unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Preservative Treatment by Pressure Process: AWWA U1.
 - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
 - 2. For exposed items indicated to receive a stained or natural finish, use chemical formulations that do not require incising, contain colorants, bleed through, or otherwise adversely affect finishes.
 - 3. Use Categories:
 - a. AWWA U1-UC3A: Exterior, coated not in contact with ground, such as coated millwork, siding, trim.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
- D. Application: Treat items indicated on Drawings, and the following:
 - 1. Wood cants, nailers, blocking, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
 - 2. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.

2.3 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
 - 1. Blocking.
 - 2. Nailers.
 - 3. Cants.
- B. For items of dimension lumber size, provide Construction or No. 2 grade lumber with 19 percent maximum moisture content of any species.
- C. For concealed boards, provide lumber with 19 percent maximum moisture content and any of the following species and grades:
 - 1. Spruce-pine-fir (south) or spruce-pine-fir, Construction or 2 Common grade; NeLMA, NLGA, WCLIB, or WWPA.
 - 2. Eastern softwoods, No. 2 Common grade; NELMA.
- D. For blocking not used for attachment of other construction Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.

- E. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

2.4 PLYWOOD

- A. DOC PS 1, Exposure 1, C-D Plugged, in thickness indicated or, if not indicated, not less than 1/2-inch nominal thickness and fire-retardant treated per AWPA C27.
 - 1. Use treatment that does not promote corrosion of metal fasteners.
 - 2. Use Interior Type A, unless otherwise indicated.
 - 3. Identify fire-retardant-treated wood with appropriate classification marking of testing and inspecting agency acceptable to authorities having jurisdiction

2.5 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.
 - 1. Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 316 stainless steel.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272.
- D. Wood Screws: ASME B18.6.1.
- E. Screws for Fastening to Cold-Formed Metal Framing and existing metal deck: ASTM C 954, except with wafer heads and reamer wings, length as recommended by screw manufacturer for material being fastened.
- F. Lag Bolts: ASME B18.2.1.
- G. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.
- H. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
 - 1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.
 - 2. Material: Stainless steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- B. Framing Standard: Comply with AF&PA's "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- C. Metal Framing Anchors: Install metal framing to comply with manufacturer's written instructions.
- D. Do not splice structural members between supports, unless otherwise indicated.
- E. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

- F. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- G. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
 - 1. Use inorganic boron for items that are continuously protected from liquid water.
 - 2. Use copper naphthenate for items not continuously protected from liquid water.
- H. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.
 - 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
- I. Use common wire nails, unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood; do not countersink nail heads, unless otherwise indicated.

3.2 WOOD BLOCKING, AND NAILER INSTALLATION

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
 - 1. Do not use wood blocking in fire-resistance-rated assemblies.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated.

3.3 PROTECTION

- A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 06 10 53

SECTION 07 01 50 - PREPARATION FOR REROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Full tear-off of areas covered with asphalt shingles.
2. Re-cover preparation of roof areas indicated.
3. Removal of base flashings.
4. Temporary roofing.

- B. Related Requirements:

1. Section 01 10 00 "Summary" for use of the premises and phasing requirements.
2. Section 01 50 00 "Temporary Facilities and Controls" for temporary construction and environmental-protection measures for reroofing preparation.
3. Section 01 220 00 "Unit Prices" for utilization of Unit Cost items in the work.

1.3 UNIT PRICES

- A. Work of this Section is affected by insulation removal and replacement unit price and roof sheathing removal and replacement unit price.

1.4 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.
- B. Full Roof Tear-Off: Removal of existing roofing system from existing plywood deck.

1.5 ACTION SUBMITTALS

- A. Temporary Roofing Submittal: Product data and description of temporary roofing system. If temporary roof remains in place, include surface preparation requirements needed to receive permanent roof, and submit a letter from roofing manufacturer, stating acceptance of the temporary roof and that its inclusion does not adversely affect the roofing system's resistance to fire and wind.

1.6 INFORMATIONAL SUBMITTALS

- A. Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces, that might be misconstrued as having been damaged by reroofing operations. Submit before Work begins.
- B. Landfill Records: Indicate receipt and acceptance of demolished roofing materials by a landfill facility licensed to accept them.

1.7 QUALITY ASSURANCE

- A. Reroofing Conference: Conduct conference at Project site.
 - 1. Meet with Owner; Architect; Owner's insurer if applicable; testing and inspecting agency representative; roofing system manufacturer's representative; roofing Installer, including project manager, superintendent, and foreman; and installers whose work interfaces with or affects reroofing, including installers of roof deck, roof accessories, and roof-mounted equipment.
 - 2. Review methods and procedures related to roofing system tear-off and replacement, including, but not limited to, the following:
 - a. Reroofing preparation, including roofing system manufacturer's written instructions.
 - b. Temporary protection requirements for existing roofing system components that are to remain.
 - c. Existing roof drainage during each stage of reroofing, and roof-drain plugging and plug removal.
 - d. Construction schedule and availability of materials, Installer's personnel, equipment, and facilities needed to avoid delays.
 - e. Existing roof deck conditions requiring notification of Architect.
 - f. Condition and acceptance of existing roof deck and base flashing substrate for reuse.
 - g. Structural loading limitations of roof deck during reroofing.
 - h. Base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that affect reroofing.
 - i. HVAC shutdown and sealing of air intakes.
 - j. Shutdown of fire-suppression, -protection, and -alarm and -detection systems.
 - k. Governing regulations and requirements for insurance and certificates if applicable.
 - l. Existing conditions that may require notification of Architect before proceeding.

1.8 FIELD CONDITIONS

- A. Existing Roofing System: Asphalt shingle roofing.
- B. Owner will occupy portions of building immediately below reroofing area. Conduct reroofing so Owner's operations are not disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.
 - 1. Coordinate work activities daily with Owner so Owner can place protective dust and water-leakage covers over sensitive equipment and furnishings, shut down HVAC and

- fire-alarm or -detection equipment if needed, and evacuate occupants from below work area.
2. Before working over structurally impaired areas of deck, notify Owner to evacuate occupants from below affected area. Verify that occupants below work area have been evacuated before proceeding with work over impaired deck area.
- C. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
 - D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
 - E. Conditions existing at time of inspection for bidding are maintained by Owner as far as practical.
 - F. Limit construction loads on roof to 100 pounds for rooftop equipment wheel loads and 50 pounds per square foot for uniformly distributed loads.
 - G. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.
 1. Remove only as much roofing in one day as can be made watertight in the same day.
 - H. Hazardous Materials: It is not expected that hazardous materials, such as asbestos-containing materials, will be encountered in the Work.
 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.

PART 2 - PRODUCTS

2.1 TEMPORARY PROTECTION MATERIALS

- A. Plywood: DOC PS1, Grade CD Exposure 1.
- B. OSB: DOC PS2, Exposure 1.

2.2 TEMPORARY ROOFING MATERIALS

- A. Design and selection of materials for temporary roofing are Contractor's responsibilities.

2.3 INFILL AND REPLACEMENT MATERIALS

- A. Use infill materials matching existing roofing system materials unless otherwise indicated.
- B. Wood blocking, curbs, and nailers are specified in Section 061053 "Miscellaneous Rough Carpentry".

- C. Plywood roof sheathing is specified in Section 061053 "Miscellaneous Rough Carpentry".

PART 3 - EXECUTION

3.1 PREPARATION

- A. Shut off rooftop utilities and service piping before beginning the Work.
- B. Test existing roof drains (downspouts) to verify that they are not blocked or restricted. Immediately notify Architect of any blockages or restrictions.
- C. Protect existing roofing system that is not to be reroofed.
- D. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.
- E. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
- F. Maintain roof drainage in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking gutters and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.
 - 1. If gutters and conductors are temporarily blocked or unserviceable due to roofing system removal or partial installation of new roofing system, provide alternative drainage method to remove water and eliminate ponding. Do not permit water to enter into or under existing roofing system components that are to remain.

3.2 ROOF TEAR-OFF

- A. General: Notify Owner each day of extent of roof tear-off proposed for that day and obtain authorization to proceed.
 - 1. Store ballast for reuse.
- B. Full Roof Tear-Off: Where indicated, remove existing roofing and other roofing system components down to the plywood deck. Plywood deck is to remain. Gymnasium roof to remain.
 - 1. Remove fasteners from deck or cut fasteners off slightly above deck surface and drive flush.
 - 2. With an electrical capacitance moisture-detection meter, spot check substrate that is to remain. If wet material is found, notify Architect.

3.3 DECK PREPARATION

- A. Inspect deck after tear-off of roofing system.

- B. Replace plywood roof sheathing as directed by Architect. Roof sheathing replacement will be paid for by adjusting the Contract Sum according to unit prices included in the Contract Documents.

3.4 TEMPORARY ROOFING

- A. Install approved temporary roofing over area to be reroofed.
- B. Prepare temporary roof to receive new roofing. Restore temporary roofing to watertight condition. Obtain approval for temporary roof substrate from roofing manufacturer and Architect before installing new roof.

3.5 BASE FLASHING REMOVAL

- A. Remove existing base flashings. Clean substrates of contaminants, such as asphalt, sheet materials, dirt, and debris.
- B. Do not damage metal counterflashings that are to remain. Replace metal counterflashings damaged during removal with counterflashings of same metal, weight or thickness, and finish.
- C. Inspect parapet sheathing, wood blocking, curbs, and nailers for deterioration and damage. If parapet sheathing, wood blocking, curbs, or nailers have deteriorated, immediately notify Architect.
- D. When directed by Architect, replace parapet framing, wood blocking, curbs, and nailers to comply with Section "061053 Miscellaneous Rough Carpentry".

3.6 FASTENER PULL-OUT TESTING

- A. Retain independent testing and inspecting agency to conduct fastener pull-out tests according to SPRI FX-1, and submit test report to Architect and roofing manufacturer before installing new roofing system.
 - 1. Obtain Architect's and roofing manufacturer's approval to proceed with specified fastening pattern. Architect or Roofing manufacturer may furnish revised fastening pattern commensurate with pull-out test results.

3.7 DISPOSAL

- A. Collect demolished materials and place in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
 - 1. Storage or sale of demolished items or materials on-site is not permitted.
- B. Transport and legally dispose of demolished materials off Owner's property.

END OF SECTION 070150.19

SECTION 07 14 16 – COLD FLUID APPLIED ROOFING (ALTERNATE 2)

PART 1 – GENERAL

1.01 DESCRIPTION

- A. General: Provide all labor, materials, equipment and tools as required to repair and coat existing metal roof area with new materials as specified.
- B. The installation is understood to include sealing of roof joints, including but not limited to fasteners, seams, curbs, and penetrations. All preparatory work will then be encapsulated with two coats of rubber roof coating.

1.02 QUALITY ASSURANCE

- A. Qualifications of Manufacturer
 - 1. Provide primary roof coating products from a single manufacturer which has successfully marketed and supplied the products for not less than ten years. Provide secondary accessory materials only as recommended and approved by manufacturer of primary materials.
 - 2. Primary products shall include spray, brush, and trowel grade coatings, polyester membrane, and rust conditioning materials.
- B. Qualifications of Contractor
 - 1. The Contractor shall use adequate numbers of qualified workers who are thoroughly trained in the crafts and techniques required to properly install the type of roof coating proposed for use and other work required to complete the work specified.
 - 2. A single installer (roofing contractor or industrial painter) will perform the work. The installer must be trained and certified by product manufacturer, and show written evidence of his authorized status.
 - 3. The installer will own or have access to the equipment necessary, and shall meet all safety, insurance, and technical requirements of the building owner.
- C. Warranty
 - 1. The Contractor shall coordinate all necessary inspections, corrections, re-inspections (if any), and certifications with the coating manufacturer as required.
 - 2. Warranty requirements apply only to roof coating to be applied to metal roof areas as described in base bid of this section.
 - 3. Warranty period is for 10 years, and shall start at date of substantial completion.

1.03 PRELIMINARY ROOF INSPECTION

- A. Upon award of bid proposal, the roofing installer and manufacturer's representative shall tour the roof area. Manufacturer's representative will record and submit any disputes or concerns governing the installation of the roof system. The installer will complete and submit the manufacturers "Pre-Application Report" with photos depicting the overall roof area and details representative of the installation.

1.04 PRELIMINARY PROJECT REVIEW

- A. Provide and review the following documentation to all parties directly concerned with the work, including the building owner, property manager, architect or roofing consultant:
 - B. Specification, including product data, warranty terms, and installation guidelines.
 - C. Material Safety Data Sheets,
 - D. Product Liability Insurance, and
 - E. Safety requirements.
- F. Evaluation of the roofing material's physical properties and performance characteristics as verified by an independent, accredited testing agency.
- G. Installer's Certificate of Authorization, signed by manufacturer.
- H. Roof Inspection Report, including details of special interest and any remedies proposed by manufacturer, its representative, or installer to address unusual requirements beyond the purview of this specification.
- I. Review Project Contract, including installer's logistical requirements such as water and electrical access, material storage area, designated work areas for ground to roof delivery of materials, personnel, etc. Determine work parameters required for a timely, efficient installation with minimal effect on the facilities normal operations.
- J. Provide a schedule estimating the project's expected completion date. Consider the possibility of a delay due to poor weather conditions or other external factors. Establish provisions for addressing primary waterproofing concerns in lieu of a completed installation when nearing the winter season.

1.06 INSTALLATION PARAMETERS:

- A. Environmental Conditions:
 - 1. Surface must be clean and dry prior to application of coatings.
 - 2. Do not begin work if surface temperature is above 140 degrees Fahrenheit or below 40 degrees Fahrenheit, or when the dew point is less than 5 degrees Fahrenheit above the surface temperature.
 - 3. Do not apply over silicone or PVC coatings. For questionable substrates, contact manufacturer's technical department.

4. Do not begin spray work if wind velocity is above 15 m.p.h.

1.07 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Deliver only approved materials to the job site. Deliver materials in original sealed containers with seals unbroken and labels legible and intact.
- B. Materials shall be delivered in sufficient quantities so as not to cause delays in work.
- C. Store and handle materials in a manner which will ensure that there is no possibility of contamination. Store in a dry, well-ventilated, weather-tight place, at temperatures between 50 degrees and 80 degrees F. Do not stack pallets more than two (2) high. Do not subject existing roofing to excessive loading. In all cases, the storage and handling of materials shall conform to the requirements of the manufacturer and all applicable safety regulatory agencies.
- D. Material containers shall not be removed from the job site until final completion and/or until so authorized by the owner. All waste materials and debris shall be cleaned up daily.
- E. Any damaged materials or materials not conforming to the specified requirements shall be rejected by the owner. Rejected materials shall be immediately removed from the job site and replaced at no additional cost to the owner.

1.08 EQUIPMENT:

- A. Roof coatings are most effectively applied using airless spray systems. Conventional air atomized spray systems can be used, but over-spray and drift are more pronounced. Recommended Airless Spray Equipment, gasoline driven:

Graco GH 733	-	4050 psi and 3 gal/m capacity
Graco GH 533	-	3000 psi and 2 gal/m capacity
Magnum 4000	-	4000 psi and 3 gal/m capacity
Hydra Pro IV	-	3000 psi and 2 gal/m capacity
or equivalent.		

- B. Use only approved, high pressure, static grounded, solvent- resistant spray hose with the following minimum inside diameters:

Maximum material hose length:
1. 50 ft. - 3/8" ID
2. 150 ft. - 1/2" ID

- C. Spray tips - Reversible, self-cleaning tip with an orifice diameter of .025 to .031 with 10" fan pattern; a .035 tip is used when spraying the Brush Grade Seam Sealer.
- D. Spray pressure - 3000 psi at pump and 1700 psi min. at spray gun.

PART TWO - PRODUCTS

2.01 RUBBER ROOF COATING

A. Basis-of-Design Product: Subject to compliance with requirements, Truco, Inc. Eterna-Seal 7140 or a comparable product by one of the following:

1. Thermo Materials "Thermolene"
2. Karnak 502 Elasto-kote

A. Rubber roof coating products physical specifications and minimum performance criteria shall be in accordance with the following schedules:

1. NEOPRENE FLASHING CEMENT #7174

<u>TEST</u>	<u>ASTM</u>	<u>RESULT</u>
Elongation at 77 deg. F.	ASTM D412	400%
Recovery from 100% Elongation		100%
Tensile Strength	ASTM D412	600 psi Min.
ADHESIVE BOND Aluminum Q-Panels		
Method A	D3359-90	5-highest rating
Method B	D3359-90	5-highest rating
PLIABILITY @ 0 deg.F.-180 deg. bend	D2823-90	
1 inch mandrel		no cracking or separation
1/4 inch mandrel		no cracking or separation
WATER VAPOR PERMEABILITY	E96-80	0.15 perms

2. BRUSH GRADE SEAM SEALER #7141

<u>TEST</u>	<u>ASTM</u>	<u>RESULT</u>
Elongation @ 77 deg. F.	ASTM D412	600%
Elongation @ 32 deg. F.	ASTM D412	300%
Recovery from 100% Elongation		100%
Tensile Strength	ASTM D412	1500 psi
Viscosity	ASTM D562	135-143 K.U.

3. RUBBER COATING #7140

<u>TEST</u>	<u>ASTM</u>	<u>RESULT</u>
Water Absorption	ASTM D471-79	.356%
Dry film thickness @ 1 gal/100 sq.ft.		6 mils
Elongation @ 77 deg. F.	ASTM D412	600%
Elongation @ 32 deg. F.	ASTM D412	300%
Recovery from 100% Elongation		100%
Tensile Strength	ASTM D412	1600 psi
Shore A Hardness	ASTM D2240	65
Viscosity	ASTM D562	105-110 K.U.
Low Temp. Brittleness	ASTM D 746-79	-22.6° C
Moisture Permeability	ASTM E96-80	0.2 per sq. ft.
UV Reflectance-initial	Energy Star req.	83%
-aged 7 years		72%
Adhesion-metal (aluminum Q panel)	ASTMD 3359-80	5-highest rating, method A&B

PART 2 -

2.02 RUST REMOVER AND CONDITIONER

A. Rust remover compound shall be a safe, non-toxic, non-flammable formulation which effectively conditions rust. In addition to treating rust and corrosion, product shall remove oil and dirt and prepares the surface for coating.

TYPICAL PROPERTIES

Flash Point	None
Specific Gravity	1.10
Weight/Gallon	9.3 lbs.
pH, undiluted	1.8
Odor	Mild, not offensive
Freeze/Thaw Stability	Thaw at room temp. and shake or stir
Spills	Flush to sewer
Coverage	300-400 sq.ft./gal.

2.03 POLYESTER MEMBRANE

A. Reinforcing membrane shall be composed of warp knit, 100% polyester yarn fibers offering an excellent combination of high strength and elongation to accommodate unusual stress forces from thermal shock or building movement.

TYPICAL PROPERTIES

Tensile Strength	ASTM D1682	90 lbs. (41 kg.)
Elongation	ASTM D1682	45%
Trapezoid Tear Strength	ASTM D1117	22 lbs. (10 kg.)
Ball Burst Strength	ASTM D3787	180 lbs. (82 kg.)

PART THREE - EXECUTION

3.01 PREPARATION OF SUBSTRATE

A. Inspect Metal Roofing to receive coatings. Determine if any panels, skylights, stacks, or other roof accessories are beyond restoration, or pose a safety concern for traffic on the roof during or after the installation. Remove and replace as necessary.

B. Treatment of Loose Seams, Flashings & Assorted Details: All large or excessive gaps between end laps, vertical seams, curb units, etc. must be closed or made flush with self-tapping screws. (Backer rod, foam strips or urethane foam may be used to pre-fill voids larger than 1/4 inch)

C. Fasteners: Re-tighten existing fasteners. Remove defective fasteners and replace with over-sized fasteners.

D. Apply rust remover & conditioner to all areas exhibiting corrosion using a hand pump/garden sprayer to the affected areas. Apply liberally to areas with severe rust. Allow a minimum of 6 hours to elapse before power washing the roof. Roof areas with severe or systemic rust should be provided additional time for the rust remover to react. In such cases, the rust remover should remain overnight for maximum effect.

E. Pressure Washing: Once the rust remover has reacted with the rusted area (A pronounced change in color can normally be detected), the roof should be power-washed with water to remove rust residue, dirt, and other debris. Recommended units will provide 3,000 psi capacity. Aged coatings should be tested for adhesive integrity by fitting an oscillating tip on to the gun assembly. (Simpson WaterBlaster or equivalent) This will increase the working pressure to remove caulks, asphaltic repairs, etc. that may otherwise be subject to future delamination under the roofing system.

F. Remaining asphalt patches should be scraped-off with spud bars or otherwise removed during the power washing process

3.02 APPLICATION

A. Waterproofing Details: All flashings, including curbs, horizontal & vertical seams, stacks and penetrations and shall be flashed with brush grade seam sealer. Subsequent to re-fastening efforts, openings in excess of 1/8 of an inch shall be reinforced with polyester membrane. Trowel grade flashing cement may be substituted as a base for the fabric on any miscellaneous areas requiring a heavy, viscous material.

1. Vents, Stacks, & Assorted Penetrations: Apply trowel grade flashing cement as an adhesive coat, imbed polyester membrane, and topcoat using brush grade seam sealer. Be sure the repair extends for several inches on the horizontal and vertical portions of the repair.

3. Curb Units: All curb flashings shall be flashed with Super Seam Sealer and polyester membrane. Rough areas with residual asphalt should use trowel grade rubber as the adhesive coat. Embed polyester membrane on center and topcoat with brush grade seam sealer.

4. Ridge Caps: All voids in the ridge cap must be sealed using backer rod, foam blocks, or urethane foam, prior to application of brush grade seam sealer. Urethane foam which extends beyond the ridge cap can be shaved flush with a utility knife. However, open cells must be filled with trowel grade flashing cement. While still wet, embed polyester membrane into the trowel grade rubber and topcoat with brush grade seam sealer.

5. Fasteners: Encapsulate with a heavy circular bead of brush grade seam sealer. Dry mill thickness should be sufficient to obscure the fastener head's outline upon inspection of the prep work.

6. Vertical Seams: All vertical seams must be sealed with brush grade seam sealer at minimum rate of 1 gallon per 70 linear feet. Back brush with a soft nylon bristle to prevent sagging and assure materials are directed in to the seam.

7. End Laps: All horizontal seams must be sealed using brush grade seam sealer at the rate of 1 gallon per 50 linear feet. Reinforce with 6" polyester membrane on center. Avoid "tenting" of fabric over fastener heads by use of a "V" cut as necessary to provide a fully adhered application. Fabric may be custom cut to fit flat portion of the panel if the vertical seam configuration does not allow for a continuous treatment to the end lap.

8. Review Prep Work for insufficient mil thickness, fishmouths in the membrane, and other irregularities. Repair deficiencies and install additional materials wherever dry film thickness is below required levels.

Note: A minimum usage of 1/2 gallon brush grade seam sealer per roofing square is required.

B. Contact manufacturer's representative when prep work is nearing completion and schedule inspection so as to mitigate or eliminate any delays. Photos depicting prep work are required prior to proceeding with the field coating's installation.

C. Install First Coat of spray grade rubber coating at a rate of 1.5 (#7145) gallons per 100 square feet. Spray the coating perpendicularly onto the substrate with spray-gun held 18" to 24" from the surface. Overlap the spray pattern a minimum of 25%.

D. After a minimum of 24 hours has elapsed apply a second coat of spray grade rubber finish (#7140) coating at a rate of 1.5 gallons per 100 square feet.

E. Repair any defects and inspect the roof for insufficient dry mil thickness (less than 21 dry mils field, 45 dry mils on seams and flashing details)

F. Inform all parties directly concerned with the roof installation upon completion of the work and schedule final inspection with manufacturer's representative.

END OF SECTION

SECTION 071900 - WATER REPELLENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes penetrating water-repellent treatments for the following vertical surfaces:
 - 1. Clay brick masonry.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include manufacturer's printed statement of VOC content.
 - 2. Include manufacturer's recommended number of coats for each type of substrate and spreading rate for each separate coat.
- B. Samples: For each type of water repellent and substrate indicated, 12 by 12 inches in size, with specified water-repellent treatment applied to half of each Sample.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Applicator.
- B. Product Certificates: For each type of water repellent.
- C. Preconstruction Test Reports: For water-repellent-treated substrates.
- D. Field quality-control reports.
- E. Sample Warranty: For special warranty.

1.6 QUALITY ASSURANCE

- A. Applicator Qualifications: An employer of workers trained and approved by manufacturer.

- B. Mockups: Prepare mockup of required water repellent on each type of substrate required to demonstrate aesthetic effects and to set quality standards for materials and execution.
 - 1. Locate mockups on existing surfaces where directed by Architect.
 - a. Size: 10 sq. ft.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 FIELD CONDITIONS

- A. Limitations: Proceed with application only when the following existing and forecasted weather and substrate conditions permit water repellents to be applied according to manufacturers' written instructions and warranty requirements:
 - 1. Substrate is not frozen and substrate-surface temperature is above 40 deg F and below 100 deg F.
 - 2. Rain or snow is not predicted within 24 hours.
 - 3. Not less than seven days have passed since surfaces were last wet.
 - 4. Windy conditions do not exist that might cause water repellent to be blown onto vegetation or surfaces not intended to be treated.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer and Applicator agree(s) to repair or replace materials that fail to maintain water repellency specified in "Performance Requirements" Article within specified warranty period.
 - 1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Performance: Water repellents shall meet the following performance requirements as determined by testing on manufacturer's standard substrates representing those indicated for this Project.
- B. Water Absorption: Minimum 90 percent reduction of water absorption after 24 hours for treated compared to untreated specimens when tested according to the following:
 - 1. Clay Brick: ASTM C 67.
- C. Water-Vapor Transmission: Comply with one or both of the following:

1. Maximum 10 percent reduction water-vapor transmission of treated compared to untreated specimens, according to ASTM E 96/E 96M.
- D. Water Penetration and Leakage through Masonry: Minimum 90 percent reduction in leakage rate of treated compared to untreated specimens, according to ASTM E 514/E 514M.
- E. Durability: Maximum 5 percent loss of water-repellent performance after 2500 hours of weathering according to ASTM G 154 compared to water-repellent-treated specimens before weathering.

2.2 PENETRATING WATER REPELLENTS

- A. Silane/Siloxane-Blend, Penetrating Water Repellent: Clear, silane and siloxane blend with 400 g/L or less of VOCs.
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. BASF Corporation-Construction Systems.
 - b. Euclid Chemical Company (The); an RPM company.
 - c. Karnak Corporation.
 - d. PROSOCO, Inc.
 - e. Sika Corporation.
 - f. Tamms; a brand of Euclid Chemical Company; an RPM Company.
 - g. Wacker Chemical Corporation.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements and conditions affecting performance of the Work.
 1. Verify that surfaces are clean and dry according to water-repellent manufacturer's requirements. Check moisture content in three representative locations by method recommended by manufacturer.
 2. Verify that there is no efflorescence or other removable residues that would be trapped beneath the application of water repellent.
 3. Verify that required repairs are complete, cured, and dry before applying water repellent.
- B. Test pH level according to water-repellent manufacturer's written instructions to ensure chemical bond to silica-containing or siliceous minerals.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Cleaning: Before application of water repellent, clean substrate of substances that could impair penetration or performance of product according to water-repellent manufacturer's written instructions and as follows:
 - 1. Prior to cleaning, remove caulk and other deleterious materials to clean substrate
- B. Protect adjoining work, including mortar and sealant bond surfaces, from spillage or blow-over of water repellent. Cover adjoining and nearby surfaces of aluminum and glass if there is the possibility of water repellent being deposited on surfaces. Cover live vegetation.
- C. Coordination with Mortar Joints: Do not apply water repellent until pointing mortar for joints adjacent to surfaces receiving water-repellent treatment has been installed and cured.
- D. Coordination with Sealant Joints: Do not apply water repellent until sealants for joints adjacent to surfaces receiving water-repellent treatment have been installed and cured.
 - 1. Water-repellent work may precede sealant application only if sealant adhesion and compatibility have been tested and verified using substrate, water repellent, and sealant materials identical to those required.

3.3 APPLICATION

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect the substrate before application of water repellent and to instruct Applicator on the product and application method to be used.
- B. Apply coating of water repellent on surfaces to be treated using 15 psi- pressure spray with a fan-type spray nozzle, roller, or brush to the point of saturation. Apply coating in dual passes of uniform, overlapping strokes. Remove excess material; do not allow material to puddle beyond saturation. Comply with manufacturer's written instructions for application procedure unless otherwise indicated.
- C. Apply a second saturation coating, repeating first application. Comply with manufacturer's written instructions for limitations on drying time between coats and after rainstorm wetting of surfaces between coats. Consult manufacturer's technical representative if written instructions are not applicable to Project conditions.

3.4 FIELD QUALITY CONTROL

- A. Testing of Water-Repellent Material: Owner reserves the right to invoke the following procedure at any time and as often as Owner deems necessary during the period when water repellent is being applied:
 - 1. Owner will engage the services of a qualified testing agency to sample water-repellent material being used. Samples of material delivered to Project site will be taken, identified, sealed, and certified in presence of Contractor.
 - 2. Testing agency will perform tests for compliance of water-repellent material with product requirements.

3. Owner may direct Contractor to stop applying water repellents if test results show material being used does not comply with product requirements. Contractor shall remove noncomplying material from Project site, pay for testing, and correct deficiency of surfaces treated with rejected materials, as approved by Architect.
- B. Coverage Test: In the presence of Architect, hose down a dry, repellent-treated surface to verify complete and uniform product application. A change in surface color will indicate incomplete application.
 1. Notify Architect three business days in advance of the dates and times when surfaces will be tested.
 2. Reapply water repellent until coverage test indicates complete coverage.

3.5 CLEANING

- A. Immediately clean water repellent from adjoining surfaces and surfaces soiled or damaged by water-repellent application as work progresses. Correct damage to work of other trades caused by water-repellent application, as approved by Architect.
- B. Comply with manufacturer's written cleaning instructions.

END OF SECTION 071900

SECTION 07 41 13 - MANUFACTURED ROOF, FASCIA AND SOFFIT PANELS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General, Supplementary and Special Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section includes the following:
 - 1. Metal roofing, fascia, wall and soffit panels.
 - 2. Thermal Insulation (Unit Cost Item)
 - 3. Gutters and downspouts and metal roof systems.
 - 4. Manufactured Roof Curbs.
 - 5. Sheet metal flashing and trim related to work under this section.
- B. Related Sections include the following:
 - 1. Division 5 Section "Cold Formed Metal Framing" for Z-furring to be installed at indicated wall panel locations.
 - 2. Division 5 Section "Cold Formed Metal Framing" for miscellaneous framing to be installed as a part of this section
 - 3. Division 6 Section "Miscellaneous Carpentry" for wood blocking.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Provide manufactured assemblies complying with performance requirements indicated and capable of withstanding structural movement, thermally induced movement, and exposure to weather without failure or infiltration of water into the building interior.
- B. Air Infiltration: Provide manufactured roof panel assemblies with permanent resistance to air leakage through assembly of not more than 0.09 cfm/sq.ft. (0.45L/s/sq. m) of fixed roof area when tested according to ASTM E 1680.
- C. Water Penetration: Provide manufactured roof panel assemblies with no water penetration as defined in the test method when tested according to ASTM E 1646.
- D. Wind-Uplift Resistance: Provide roof panel assemblies that meet requirements of UL 580 for Class 90 wind-uplift resistance and is required to comply with IBC 2012, whichever is most stringent.
- E. Seismic Performance: Provide metal roof panel assemblies capable of withstanding the effects of earthquake motions determined according to ASCE 7, "Minimum Design Loads for Buildings and Other Structures": Section 9, "Earthquake Loads."
- F. Structural Performance: Provide manufactured roof panel assemblies capable of safely supporting design loads indicated under in-service conditions with vertical deflection no greater than the following, based on testing manufacturer's standard units according to ASTM E 1592 by a qualified

independent testing and inspecting agency.

1. Maximum Deflection 1/180 of the span.

G. Thermal Movements: Provide metal roof panel assemblies 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 (Range): 120 deg F, ambient; 180 deg F, material surfaces.

H. Solar Reflectance Index: Not less than 29 when calculated ASTM E1980.

I. Energy Performance: Provide roof panels that are listed on the EPA/DOE's ENERGY STAR "Roof Product List" for steep-slope roof products.

1.4 SUBMITTALS

A. Product Data: Include manufacturer's product specifications, standard details, certified product test results, and general recommendations, as applicable to materials and finishes for each component and for total assemblies.

B. Shop Drawings: Show layouts of panels on roofs, fascia and soffits, details of edge conditions, joints, panel profiles, supports, anchorages, trim, flashings, underlayment, closures, and special details. Distinguish between factory and field-assembled work.

1. For installed products indicated to comply with certain design loadings, include structural analysis data signed and sealed by the qualified Georgia licensed professional engineer responsible for their preparation.

C. Samples for Initial Selection: Manufacturer's color charts or chips showing color, texture, and pattern available for roof panels with factory-applied finishes to match existing.

D. Samples for Verification: Provide sample panels 12 inches (300 mm) long by actual panel width, in the profile, style, color, and texture indicated. Include clips, fasteners, closures, and other exposed panel accessories.

E. Qualification Data: For firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

F. Maintenance Data: Submit manufacturer's published maintenance data at closeout.

G. Product Test Reports: Indicate compliance of manufactured roof panel assemblies and materials with performance and other requirements based on comprehensive testing of current products.

H. Warranties: Provide samples warranties for warranties required in this section. Sample warranties shall be copies of actual previously issued warranties with identifying information redacted.

1.5 QUALITY ASSURANCE

- A. **Installer Qualifications:** A firm or individual experienced in installing, erecting, 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, and has been in business under the same name for more than (5) Five years, and is a Top Tier manufacturer authorized installer of the panel system provided. Installer shall have an office within 150 miles of the jobsite. Firm shall have an Experience Modification Rating of less than 1.
- B. **Testing Agency Qualifications:** An independent testing agency with the experience and capability to conduct the testing indicated without delaying the Work, as documented according to ASTM E 699.
- C. **Manufacturers Technical Representative Qualifications:** Provide evidence of Representative's employment with roof panel manufacturer for a minimum of 5 years and applicable installation inspection certification.
- D. **Preinstallation Conference:** Before installing roofing system, conduct conference at Project site to comply with requirements of Division 1 Section "Project Meetings". Notify participants at least 5 working days before conference.
 - 1. Meet with Owner; Architect; Owner's Insurer, if applicable; testing and inspecting agency representative; roofing Installer; roofing system manufacturer's representative; deck Installer; and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
 - 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
 - 3. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and attachment to structural members.
 - 4. Review loading limitations of deck during and after roofing.
 - 5. Review flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing.
 - 6. Review governing regulations and requirements for warranty and inspection.
 - 7. Review temporary protection requirements for roofing system during and after installation.
 - 8. Review roof observation and repair procedures after roofing installation.
 - 9. Document proceedings, including corrective measures or actions required, and furnish copy of record to each participant.
- E. Obtain metal roofing, metal soffit and metal downspouts and gutters from a single manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver panels and other components so they will not be damaged or deformed. Package panels for protection against damage during transportation or handling.
- B. **Handling:** Exercise care in unloading, storing, and erecting roof panels to prevent bending, warping, twisting, and surface damage.
- C. Stack materials on platforms or pallets, covered with tarpaulins or other suitable weathertight and ventilated covering. Store panels to ensure dryness. Do not store panels in contact with other materials that might cause staining, denting, or other surface damage.

1.7 PROJECT CONDITIONS

- A. Field Measurements: Verify location of structural members and opening in substrates by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal roof panel assemblies and flashings that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures, including rupturing, cracking, or puncturing.
 - b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 2. Warranty Period: Five [5] years from Material Completion.
- B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal roof panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 20 years from date of Material Completion.
- C. Special Weathertightness Warranty for Standing-Seam Metal Roof Panels, all System Components, flashings and insulation: Manufacturer's No Dollar Limit non-prorated standard form in which manufacturer agrees to repair or replace standing-seam metal roof panel assemblies, flashings and insulation that fail to remain weathertight, including leaks and detachment from the building, within specified warranty period.
 - 1. Warranty Period: 20 years from date of Material Completion.
- D. Special Project Warranty: Submit roofing Installer's warranty from this section, covering the Work of this Section, including all components of membrane roofing system such as membrane roofing, base flashing, roof insulation, fasteners and walkway products, for the following warranty period. Contractor shall respond with correcting action within 24 hours of Owner's call.
 - 1. Period of Installer's Warranty: 5 years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer: Subject to compliance with requirements, provide one of the following roof, fascia panels, soffit panels, gutters and downspouts by one of the following:
 - 1. Architectural Metal Systems, 16" 360 Loc-Seam Panels with 2" standing seams.
 - 2. Metal Building Components, Inc. - SuperLok 16" System, 24 Ga. 360 seam.
 - 3. McElroy Metal, Inc. - Maxima 16" System, 2";16 Series 24 Ga. Triple Lock seam.

2.2 METALS AND FINISHES

- A. Steel for Painting/Coating: 50 KSI Galvalume.
 - 1. Type: 2" vertical rib lock seam with 360° lock.
 - 2. Panel coverage: 16"
 - 3. Thickness: 24 gauge.
 - 4. Texture: Smooth, with standard intermediate stiffness striations.
 - 5. Finish: Apply the following organic coating in thickness indicated. Furnish appropriate air-drying spray finish in matching color for touchup. Touchup paint will be provided by the metal roofing manufacturer to match the color of the metal roofing system.
 - a. Fluoropolymer 2-Coat Coating System.
 - b. Sides of Panels:
 - 1) Durability: Provide coating field tested under normal range of weather conditions for a minimum of 20 years without significant peel, blister, flake, chip, crack, or check in finish; without chalking in excess of 8 according to ASTM D 4214; and without fading in excess of 5 Hunter units.
 - 6. Colors: To be selected by Architect from manufacturers standard range. No premium colors.
 - 7. Finish to comply with U.S. Department of Energy's current "Energy Star" requirements for reflectivity and emmissivity.

2.3 ROOF PANEL ASSEMBLIES

- A. Standing-Seam Roof Panels: Manufacturer's standard factory-formed, standing-seam roof panel assembly designed for concealed mechanical attachment of panels to roof deck.
 - 1. Clips: Provide minimum 0.0625-inch- (1.6-mm-) thick, metal panel clips as per Manufacturer's specifications and warranty designed to meet negative-load requirements.
 - 2. Bearing Plates: As required, provide minimum 20 gauge galvanized metal bearing plates under the metal roof panel clips in a pattern to meet the wind uplift design requirements. Bearing Plate will be a sized in accordance with UL 580 construction test data as submitted to the Architect.

2.4 THERMAL INSULATION (UNIT COST ITEM)

- A. Polyisocyanurate Board Insulation: Felt faced, preformed, rigid, cellular, polyisocyanurate thermal insulation complying with ASTM C1289-98, Type II glass fiber reinforced core foam, with aged thermal-resistance values for 1-inch thickness of 5.6 deg F x h x sq. ft./Btu at 75 deg F (1.1 K x sq. m/W at 24 deg. C). Meet minimum R-value of 20 with a minimum thickness of 3". Maximum board sizes are to be no larger than 4' by 8' in size. Roof insulation will be kept dry prior to installation in the roofing system. Polyshrink wraps that come with the roof insulation is not an acceptable measure of covering the material on the job site.

2.5 UNDERLAYMENT MATERIALS

- A. Self-Adhering, Polyethylene-Faced Sheet: ASTM D 1970, 40 mils (1.0 mm) thick minimum, consisting of slip-resisting polyethylene-film reinforcing and top surface laminated to SBS-modified asphalt adhesive, with release-paper backing; cold applied, formulated for use under metal roofing.
 - 1. Available Products:
 - a. Grace, W.R. & Co.; Grace Ice and Water Shield HT.
 - b. Firestone Building Products; Clad-Guard SA
 - c. NEI Advanced Composite Technology; AC Poly Ice and StormSeal.

2.6 MISCELLANEOUS MATERIALS

- A. General: Provide materials and accessories required for a complete roof panel assembly and as recommended by panel manufacturer, unless otherwise indicated.
- B. Fasteners: Self-tapping screws, bolts, nuts, self-locking rivets and bolts, end-welded studs, and other suitable fasteners designed to withstand design loads. Metal roof system to be installed with no exposed fasteners. If exposed fasteners are required they must be approved on the shop drawings by the Architect.
 - 1. Use stainless steel fasteners for exterior applications.
 - 2. Provide exposed fasteners with heads matching color of roof panel by means of plastic caps or factory-applied coating.
 - 3. Provide metal-backed neoprene washers under heads of exposed fasteners bearing on weather side of panels.
 - 4. Locate and space exposed fasteners in true vertical and horizontal alignment. Use proper tools to obtain controlled uniform compression for positive seal without rupture of neoprene washer.
- C. Accessories: Provide components required for a complete roof panel assembly including trim, copings, fascia, ridge closures, clips, flashings, gutters, downspouts, sealants, gaskets, fillers, closure strips, and similar items. Match materials and finishes of panels.
 - 1. Sealing Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealing tape with release paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape.
 - 2. Elastomeric Joint Sealant: ASTM C 920, of base polymer, type, grade, class, and use classifications required to seal joints in panel roofing and remain weathertight. Provide sealant recommended by panel manufacturer.
 - 3. Joint Sealant: Joint sealant for sealing to existing substrates only:
 - a. Single-component Neutral Curing Polyurethane Sealant
 - 1. Products:
 - i. Sonneborn; NP1.
 - ii. Pecora Corporation; DynaTrol I-XL
 - iii. Tremco; Vulkem 116.
 - b. Type and Grade: S (single component) and NS (nonsag)
 - c. Class: 50
 - d. Use Related to Exposure: NT (nontraffic)
 - e. Uses related to Joint Substrates: M, G, A, and, as applicable, to joint substrates indicated, O.
- D. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil (0.4-mm) dry film thickness per coat, unless otherwise indicated. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.
- E. Expansion-Joint Sealant: For hooked-type expansion joints that must be free to move, provide nonsetting, nonhardening, nonmigrating, heavy-bodied polyisobutylene sealant.
- F. Primer: Rust-inhibitive primer recommended by panel manufacturer for finish coat.

2.7 PREFABRICATED CURBS AND EQUIPMENT SUPPORTS

- A. Manufacturer: Subject to compliance with requirements, provide roof curbs by one of the following:
 - 1. Pate Curbs Model pc-2 mb-1s1
 - 2. KCC Curbs Model MBC-3

3. R&S Manufacturing and Sales Model MB7-SC

- B. General: Comply with loading and strength requirements as indicated where units support other work. Coordinate dimensions and types of curbs with existing equipment. All roof curbs are required to meet the roofing manufacturer's requirements to be included in the metal roofing manufacturer's twenty year weather-tight warranty.
- C. Roof Curbs: Fabricated from same material and color as roof panels, with mitered and welded joints as well as integral full-length cricket and base plates. Fabricate curb subframing of minimum 0.0598-inch- (1.5-mm-) thick, angle-, C-, or Z-shaped steel sheet. Fabricate curb and subframing to withstand indicated loads, of size and height indicated. Front base plate shall be a minimum of 18" from beginning of water diverter. Curbs shall be designed to install under metal roof system on the high side and over metal roof system on the low side.
 - 1. Insulate roof curb with 1-inch- (25-mm-) thick, rigid insulation.
- C. Minimum height of curb shall be 8" above finished metal roof system.
- D. Curbs shall be constructed to match slope of roof and provide a level top surface for mounting of equipment.
- E. Curbs shall be designed to seam into the metal roof system.
- F. Submit roof curb manufacturer's shop drawings to metal roof system manufacturer for approval before fabrication of curbs.

2.8 PREFABRICATED ROOF JACKS

- A. Pipe flashings shall be a one piece EPDM (ethylene propylen diene monomer) molded rubber boot, with stainless steel clamps, having a serviceable temperature range of 60 deg F to 270 deg F and shall be resistant to ozone and ultraviolet rays. Units shall have an aluminum flanged base ring. Do not install pipe flashings through any panel seams- install ONLY in the flat portion of the panel. Paint to match roof panels.

2.9 METAL FASCIA AND WALL PANELS

- A. Concealed fastener wall panel.
 - 1. Panel Coverage: As indicated.
 - 2. Style: 12-inch wide (nominal) flat panels.
 - 3. Gauge: 24 Gauge.
- B. Steel for Painting/Coating: Hot-dipped zinc coated steel sheet, ASTM A 446, Grade A, except where higher strength required for performance, G90 zinc coating, surface treated for maximum coating performance.
 - 1. Exterior Finish: 2 Coat Fluoropolymer.
 - 2. Color: As selected by Architect from manufacturer's standard range. No premium colors.

2.10 METAL SOFFIT PANELS

- A. V-Groove-Profile Metal Soffit Panels: Perforated and solid panels as indicated formed with vertical panel edges and intermediate stiffening ribs symmetrically spaced between panel edges; with V-groove joint between panels.
 - 1. Steel for Painting/Coating: Hot-dipped zinc coated steel sheet, ASTM A 446, Grade A, except where higher strength required for performance, G90 zinc coating, surface treated for maximum coating performance.
 - a. Exterior Finish: 2 Coat Fluoropolymer.
 - b. Color: Match roof color.
 - 2. Panel Coverage: 12 inches (305mm) with beads @ 4" o.c., with center section non-vented.
 - 3. Panel Height: 1".
 - 4. Panel Gauge: 24 gauge.

2.11 METAL GUTTERS AND DOWNSPOUTS

- A. Gutters: Formed from same material as the metal roofing system in gauge, material and color, except where higher strength required for performance, Galvalume or G90 zinc coating, surface treated for maximum coating performance. Complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch- (2400-mm-) long sections, sized according to SMACNA's "Architectural Sheet Metal Manual." Furnish gutter supports as indicated, fabricated from same metal as gutters. Provide aluminum wire ball strainers at outlets. Finish gutters to match metal roof panels.
- B. Downspouts: Formed from same material as the metal roofing system in gauge, material and color, except where higher strength required for performance, Galvalume or G90 zinc coating, surface treated for maximum coating performance, 10-foot- (3-m-) long sections, complete with formed elbows and offsets. Finish downspouts to match metal roof panels.

2.13 STEEP-SLOPE ROOF SHEET METAL FABRICATIONS

- A. Apron, Step, Cricket, and Backer Flashing: Fabricate from same material as roof panels.
- B. Drip Edges: Fabricate from same material as roof panels.
- C. Eave, Rake Flashing: Fabricate from same material as roof panels.
- D. Counterflashing: Fabricate from same material as roof panels.
- E. Flashing Receivers: Fabricate from same material as roof panels.
- F. Roof-Penetration Flashing: Fabricate from same material as roof panels except .028 thick.

2.14 FABRICATION

- A. General: Fabricate and finish panels and accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes, as required to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and dimensional requirements and with structural requirements.

- B. Roof panels may not be spliced. Panels must be one continuous piece from start point to end point with the only interruption being at roof penetrations.
- C. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.
 - 1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
 - 2. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
 - 3. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
 - 4. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Coordinate metal panel roofing, fascia and soffit with other adjoining work to provide a leakproof, secure, and noncorrosive installation.
- B. Promptly remove protective film, if any, from exposed surfaces of metal panels and sheet metal flashings. Strip with care to avoid damage to finish.

3.2 METAL PANEL INSTALLATION

- A. General: Comply with panel manufacturers' written instructions and recommendations for installation of the complete roofing assembly, as applicable to project conditions and supporting substrates and approved shop drawings. Anchor roof insulation and metal panels and other components of the work securely in place, with provisions for thermal and structural movement.
 - 1. Install one (1) layer of membrane underlayment over the entire roof area per manufacturer's recommendations with at least 3" (75mm) side laps and 4" (100mm) end laps.
 - 2. Field cutting of exterior panels by torch or saw is not permitted.
 - 3. Install panels with concealed fasteners. No exposed fasteners acceptable.
- 4. Install panels over solid substrate to slope indicated.
 - B. Accessories: Install components required for a complete roof panel assembly including trim, copings, fascia, ridge closures, clips, seam covers, flashings, gutters, downspouts, sealants, gaskets, fillers, closure strips, and similar items.
 - C. Separate dissimilar metals by painting each metal surface in area of contact with a bituminous coating, by applying rubberized-asphalt underlayment to each metal surface, or by other permanent separation as recommended by manufacturers of dissimilar metals.
 - D. Coat back side of metal panels with bituminous coating where it will contact wood, ferrous metal, or cementitious construction.

- E. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weatherproof performance of panel assemblies. Provide types of gaskets, fillers, and sealants indicated or, if not otherwise indicated, types recommended by panel manufacturer.
 - 1. Install weatherseal under ridge cap. Flash and seal roof panels at eave and rake with rubber, neoprene, or other closures to exclude weather.
 - 2. Seal panel end laps with double beads of tape or sealant, full width of panel. Seal side joints where recommended by panel manufacturer.
 - 3. Prepare joints and apply sealants to comply with requirements of Division 7 Section "Joint Sealants".
 - 4. Exposed sealant is not acceptable.
- F. Standing Seam Roof Panel System: Fasten roof panels to supports with concealed clip according to panel manufacturer's written instructions.
 - 1. Install clips with self-drilling/self-tapping fasteners. Clips are to be placed on the bearing plates and attached through the bearing plate, through the roof insulation and attach into the metal decking below the roof system. All clips require two (2) fasteners per clip. Spacing of clips and bearing plates will be as required to meet the design wind loads as provided on engineered approved shop drawings.
 - 2. End Laps are not acceptable.
 - 3. Install factory-calked cleats at standing-seam joints.
- 4. Seaming: Complete seaming of panel joints by operating portable power-driven equipment of type recommended by panel manufacturer to provide a weathertight joint.
- G. Installation Tolerances: Ship and align panel units within installed tolerance of 1/4 inch (6 mm in 6 m) on slope and location lines as indicated and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.
- H. Manufacturer shall send a qualified Technical Inspector to visit the roof installation at beginning (roof pre-construction meeting), mid-term and at completion. Representative shall prepare a written report of each visit addressing compliance of installation with manufacturers product data.

3.3 METAL WALL PANEL INSTALLATION

- A. General: Install wall panels according to manufacturer's written instructions in orientation, sizes, and locations indicated on Drawings. Anchor panels and other components of the Work securely in place, with provisions for thermal and structural movement.
 - 1. Commence wall panel installation and install minimum of 300 sq. ft. in presence of factory-authorized representative.
 - 2. Shim or otherwise plumb substrates receiving metal wall panels.
 - 3. Flash and seal metal-faced composite wall panels at perimeter of all openings. Do not begin installation until weather barrier and flashings that will be concealed by panels are installed.
 - 4. Install flashing and trim as metal-faced composite wall panel work proceeds.
 - 5. Provide weathertight escutcheons for pipe and conduit penetrating exterior walls.
 - 6. Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action as recommended by metal-faced composite wall panel manufacturer.
- B. Self-Adhering Sheet Underlayment: At areas of installation over sheathing, install, wrinkle free, on sheathing. Comply with low-temperature installation restrictions of underlayment manufacturer if applicable. Install lapped in direction that sheds water. Lap sides not less than

3-1/2 inches (89 mm)). Lap ends not less than 6 inches (150 mm)) staggered 24 inches (600 mm)) between courses. Roll laps with roller. Extend minimum 3" over Bituminous Dampproofing at junctures with masonry construction. Cover underlayment within seven days

C. Z-Furring Members:

1. Where indicated, provide Z-furring members.
2. Except at exterior corners, securely attach narrow flanges of furring members to wall with concrete stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches o.c.
3. At exterior corners, attach wide flange of furring members to wall with short flange extending beyond corner; on adjacent wall surface, screw-attach short flange of furring channel to web of attached channel. At interior corners, space second member no more than 12 inches from corner and cut insulation to fit.

3.4 GUTTER AND DOWNSPOUT INSTALLATION

- A. Gutters: Join sections with riveted and soldered or lapped and sealed joints. Attach gutters to eave with gutter hangers spaced not more than 2 feet (0.9m) o.c. using manufacturer's standard fasteners as shown on approved shop drawings. Provide end closers and seal watertight with sealant. Provide for thermal expansion and contraction per SMACNA details.
- B. Downspouts: Join sections with 1-1.2-inch (38-mm) telescoping joints. Provide fasteners designed to hold downspouts securely 1 inch (25 mm) away from walls; locate fasteners at top and bottom and approximately 60 inches (1500 mm) o.c. in between.
 1. Tie downspouts to underground drainage system indicated.

3.5 CLEANING AND PROTECTION

- A. Damaged Units: Replace panels and other components of the work that have been damaged or have deteriorated beyond successful repair by means of finish touch-up or similar minor repair procedures.
- B. Cleaning: Remove temporary protective coverings and strippable films (if any) as soon as each panel is installed. Upon completion of panel installation, clean finished surfaces as recommended by panel manufacturer, and maintain in a clean condition during construction.

3.5 ROOFING INSTALLER'S WARRANTY

- C. WHEREAS **<Insert name>** of **<Insert address>**, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
- 1.Owner: **<Insert name of Owner>**.
 - 2.Address: **<Insert address>**.
 - 3.Building Name/Type: **<Insert information>**.
 - 4.Address: **<Insert address>**.
 - 5.Area of Work: **<Insert information>**.
 - 6.Acceptance Date: **<Insert date>**.
 - 7.Warranty Period: **<Insert time>**.
 - 8.Expiration Date: **<Insert date>**.

- D. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- E. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- F. This Warranty is made subject to the following terms and conditions:
1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a. lightning;
 - b. peak gust wind speed of 130 mph.
 - c. fire;
 - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f. vapor condensation on bottom of roofing; and
 - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
 2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
 3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
 4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
 5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
 6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
 7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work

- according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.
- G. IN WITNESS THEREOF, this instrument has been duly executed this **<Insert day>** day of **<Insert month>**, **<Insert year>**.

1. Authorized Signature: **<Insert signature>**.
2. Name: **<Insert name>**.
3. Title: **<Insert title>**.

END OF SECTION 07 41 13

