

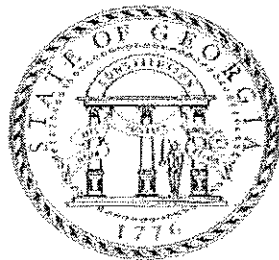
INVITATION TO BID
#462-492-88010

CABIN RENOVATION

AT
RED TOP MOUNTAIN STATE PARK
CARTERSVILLE, GEORGIA

PROJECT MANUAL

APRIL 13, 2010



GEORGIA STATE FINANCING AND INVESTMENT COMMISSION

ATLANTA, GEORGIA

CABIN RENOVATION
RED TOP MOUNTAIN STATE PARK
CARTERSVILLE, GEORGIA
INVITATION TO BID #462-492-88010
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SECTION A
INVITATION TO BID
No. 462-492-88010

- A-01.** Notice is hereby given that the Georgia State Finance and Investment Commission (GSFIC) will accept sealed bids on behalf of the Georgia Department of Natural Resources for Cabin Renovation at Red Top Mountain State Park, Rising Fawn, Georgia, in strict conformity with the bidding and Contract Documents.
- A-02.** Each bid must be submitted on the prescribed Form of Proposal. All blank spaces for bid prices must be filled in, in ink or typewritten, in both words and figures, and the certification (reference Form of Proposal paragraph B-09) must be fully completed and executed when submitted.
- A-03.** Such sealed bids as received will be opened and read aloud at 2:00 P.M. on November 23, 2010 in the GSFIC Bid Room located on the Second Floor, 270 Washington Street, Atlanta, Georgia. All mailed or hand delivered bids must be received by the Georgia State Finance and Investment Commission, Second Floor, 270 Washington Street, Atlanta, Georgia 30334, on or before that date and time. Bidder retains full responsibility for assuring that bids are received in the Procurement Division by the time stated for bid opening.
- A-04. COPIES OF BIDDING DOCUMENTS MAY BE OBTAINED FROM:**
The Georgia Procurement Register at: <http://ssl.doas.state.ga.us/PRSapp/index.jsp> under "State Government" and "Georgia State Financing and Investment Commission". Information concerning the pre-bid conference may be obtained from: Tom Hooks, Contracts Administrator, Department of Natural Resources, 2 Martin Luther King, Jr. Drive, Suite 1352, Atlanta, Georgia 30334, 404-656-2770 tomh@dnr.state.ga.us

IMPORTANT

A MANDATORY PRE-BID CONFERENCE will be held at Red Top Mountain State Park , 50 Lodge Road, Cartersville, Georgia 30121 on November 10, 2010 at 10:00 AM. The GSFIC reserves the right to disqualify a potential bidder due to a failure by the bidder to arrive for the site visit by the scheduled time. Failure to attend a mandatory site visit will automatically result in disqualification from the bid process.

- A-05.** Except for the purposes of obtaining bidding documents, from the date that this Invitation To Bid (ITB) is issued until a bidder is selected and the selection is announced, there will be no communication for any reason between a bidder and any State employee other than the contracting officer listed below regarding this ITB. The GSFIC reserves the right to reject any proposal for violation of this provision. No questions other than written will be accepted, and no response other than written will be binding upon the GSFIC.

Contracting Officer: Cassandra Zuber
270 Washington Street, Second Floor
Atlanta, Georgia 30334
404-463-5733
404-463-5699 (Fax)
czuber@gsfic.ga.gov

- A-06.** Each bid must be accompanied with a BID BOND (Bond only; certified checks or other forms are not acceptable) in an amount equal to 5% of the base bid, payable to the Georgia State Finance and Investment Commission and issued by a Corporate Surety authorized to do business in the State of Georgia, in order to guarantee that the bidder will enter into a contract to construct the project strictly within the terms and conditions stated in this bid and in the bidding and Contract Documents, should the construction contract be awarded to him.
- A-07.** All bids submitted shall remain open for a period of thirty-five (35) days after the date of the bid opening.
- A-08.** The owner reserves the right to reject any or all bids and to waive technicalities and irregularities.
- A-09.** All expenses for preparing and submitting responses are the sole cost of the party submitting the response. The GSFIC is not obligated to any party to reimburse such expenses. All submittals upon receipt become the

property of the GSFIC. Labeling information provided in submittals "proprietary" or "confidential", or any other designation of restricted use will not protect the information from public view. Subject to the provisions of the Open Records Act, the details of the proposal documents will remain confidential until final award.

**SECTION B
PROPOSAL FORM**

BID CLOSING DATE AND TIME: November 23, 2010 @ 2:00 P.M.

TO: Procurement Division
Georgia State Finance and Investment Commission
270 Washington Street, Second Floor
Atlanta, Georgia 30334

FOR: GEORGIA DEPARTMENT OF NATURAL RESOURCES
AN AGENCY FOR THE STATE OF GEORGIA

Gentlemen:

- B-01.** Having carefully examined the Bidding Documents entitled: Cabin Renovation at Red Top Mountain State Park, Cartersville, Georgia, dated April 13, 2010, and Addendum(a) No.(s) _____ as well as the premises and conditions affecting the Work, *[the state reserves the right to disqualify any bid submitted which fails to acknowledge receipt of all issued addendum (a)]* the undersigned proposes to furnish all services, labor, and materials called for by them for the entire Work, in accordance with said documents, for the sum of:

_____ Dollars (\$ _____), which sum is hereinafter called the Base Bid.

- B-02.** **ALTERNATE/UNIT PRICES:** The following alternate prices/unit prices are hereby established and subject to owner approval: (1) may form the basis of a change order or (2) may be incorporated into the contract price at the time of the award. Said prices shall remain firm and in effect for 30 days after the notice to proceed is issued by the owner. The owner reserves the right to exercise/accept any combination of independent alternates and adjust the contract price accordingly:

ALTERNATE NO. 1: Eliminate all work on cottages 1 and 2. DEDUCT the sum of:

_____ Dollars (\$ _____)
from the Base Bid.

ALTERNATE NO. 2: Eliminate all work on cottage 3. DEDUCT the sum of:

_____ Dollars (\$ _____)
from the Base Bid.

ALTERNATE NO. 3: Eliminate all work on cottages 7 and 8. DEDUCT the sum of:

_____ Dollars (\$ _____)
from the Base Bid.

ALTERNATE NO. 4: Eliminate all work on cottage 9. DEDUCT the sum of:

_____ Dollars (\$ _____)
from the Base Bid.

- B-03.** The undersigned hereby agrees that this proposal may not be revoked or withdrawn after the time set for the opening of bids, but shall remain open for acceptance for a period of 35 days following such time.

- B-04.** In the event that the undersigned is notified in writing by mail, telegraph, or delivery of the acceptance of this proposal within 35 days after the time set for the opening of bids, the undersigned agrees to execute, within fifteen (15) days, a contract (on a form supplied by the Georgia State Finance and Investment Commission, when a stipulated sum forms the basis of payment) for the Work for the above stated compensation and at the same time to furnish and deliver to the Owner a Performance Bond and Payment Bond in accordance with the forms shown in Exhibit C & D and the General Conditions of the Contract, both in an amount equal to 100% of the Contract sum. The surety must be one which is licensed to do business in the State of Georgia.
- B-05.** Prior to the bid opening date and hour, errors may be stricken or revisions may be made and corrections entered on this proposal form, provided that any such strike-over or revision is signed in ink by the person signing the bid or his agent. **Any revisions made on the outside of the envelope will not be accepted.**
- B-06.** **The undersigned agrees to commence actual physical work on the site with an adequate work force and equipment on January 1, 2011 and to complete fully all work not later than March 31, 2011.**
- B-07.** Enclosed herewith is a bid bond (Bid Bond only, Bonding Company Form is Acceptable; certified checks or other forms of bid security are not acceptable) in the amount of

DOLLARS (\$ _____)

(being not less than 5% of the base bid). The undersigned agrees that the above stated amount is the proper measure of liquidated damages which the Owner will sustain by the failure of the undersigned to execute the Contract and to furnish performance and payment bonds in case this proposal is accepted.

B-08. The bidder submits the following statement of bidder's qualifications for consideration by the Owner.

STATEMENT OF BIDDER'S QUALIFICATIONS
(To be subscribed and sworn to before a notary public)

Firm Name: _____
LEGAL NAME OF BUSINESS (As registered with Secretary of State)

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

_____ CITY STATE ZIP

_____ MAILING ADDRESS IF DIFFERENT FROM ABOVE

Telephone Number: _____
AREA CODE NUMBER

Contact Person Name and Email Address: _____

Georgia Resident: YES ___ NO ___

When Organized: _____ Where Incorporated: _____

Federal I.D. No.: _____ or Social Security No.: _____

Number of years engaged in the contracting business under the present firm name: _____

Credit Available for This Contract: _____

Contracts Now in Hand, Gross Amount:: _____

Plan of Organization: Proprietorship Corporation Partnership

The bidder has refused to sign a contract at the original bid. YES or NO (Please circle one)

The bidder has been declared in default on a contract. YES or NO (Please circle one)

If answer is Yes to either statement above, please explain:

The foregoing statement of qualifications is submitted under oath.

B-09. Under oath I certify that I am a principal or other representative of the firm of _____ and that I am authorized by it to execute the foregoing offer on its behalf. I am a principal person of the foregoing with management responsibility for the foregoing subject matter and as such I am personally knowledgeable of all its pertinent matters. The foregoing statement of facts in the foregoing proposal is true.

B-10. I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a bid for the same materials, supplies, or equipment, and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of State and Federal law and can result in fines, prison sentences and civil damage awards. I agree to abide by all conditions of this bid and certify that provisions of Georgia O.C.G.A. Section 45-10-20, *et. sec.*, have not and shall not be violated in any respect.

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

(1) _____

Check One: President () Partner () Owner ()

(2) _____

Check One: Vice President () Secretary () Partner ()

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

The legal name of the bidder as registered with the Secretary of State is:

DATE: _____

BY: _____
Authorized Signature (BLUE INK PLEASE)

Typed/Printed Name Title

Sworn to and subscribed before me this ____ day of _____, 20 ____.

Notary Public

My commission expires: _____

NOTICE TO BIDDERS

- 1) **MAKE SURE YOU HAVE SIGNED THIS PROPOSAL IN THE SPACE PROVIDED ABOVE.**
- 2) **SUBMIT ORIGINAL OF THE FORM OF PROPOSAL.**
- 3) **MAKE SURE YOU AND YOUR SURETY HAVE PROPERLY EXECUTED THE BID BOND.**

B-12. Please check the box if the definition below applies to your company:

- MINORITY BUSINESS ENTERPRISE (MBE).** The business is either: a) owner by a member of a minority race or b) a partnership of which a majority of interest is owned by one or more members of a minority race or c) a public corporation of which a majority of the common stock is owned by one or more members of a minority race. A member of a minority race is defined as an individual who is a member of a race which comprises less than 50 percent of the total population of the state of Georgia. This request is made for statistical purposes only.

SECTION C
INSTRUCTION TO BIDDERS

C-01. Basis of Contract. See Invitation to Bid and Proposal Form. (See also D-45)

C-02. Bid Security. See Invitation to Bid and Proposal Form.

C-03. 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 Architect and/or the Owner's Representative not later than five (5) days prior to the date set for receipt of the proposals, and failure on the part of the successful bidder to do so shall not relieve him as Contractor of the obligation to execute such work in accordance with a later interpretation by the Architect and/or the Owner's Representative. All interpretations made to bidders will be issued in the form of addenda to the plans and specifications and will be posted on the Georgia Procurement Registry. Such addenda are to be listed in the proposals, and in closing the contract they will become a part thereof. (See also D-45)

C-04. Proposals

- a. Bids will be opened and read as stated in the Invitation to Bid.
- b. All bidders must deliver two (2) complete sets (one original clearly marked or stamped "original", and one (1) copy of the Proposal Form (Section B) and the copy must be signed. All blanks on the Proposal Form must be filled in. Numbers and shall be written in English words and in Arabic numerals. The completed form shall be without interlineation, alteration or erasure. Failure to submit a proposal in the form required or the inclusion of any condition, alternate, limitation or provision not called for will render the proposal irregular and shall be considered sufficient cause for rejection of a proposal. Failure to complete entries in all blanks in the Proposal Form shall be considered sufficient cause for rejection of a proposal.
- c. Proposals are to be addressed to the Georgia State Finance and Investment Commission, at the address shown in the Invitation to Bid and must be enclosed in an opaque, sealed envelope and marked on the lower left corner with the Bid Date, Bid Time, Bid Number and the Name of Project. Proposals are to reach the address designated in the invitation to bid not later than the hour and date named in the Invitation To Bid. After that time no proposals may be received.
- d. A bid must be submitted for all alternates. (See D-47)
- e. Bids together with the full bid security accompanying same may be withdrawn by bidders prior to the time set for official opening. After time has been called, no proposal may be withdrawn for a period of thirty five days after the TIME AND DATE of opening. Negligence or error on the part of any bidder in preparing his proposal confers no right of withdrawal or modification of his proposal after time has been called.
- f. Bid responses containing provisions for late or interest charges will not be considered for an award. Bidders are instructed to remove or strike through any reference to this provision and to initial changes prior to submitting a bid response to the Georgia State Finance and Investment Commission.

C-05. Examination of Site. The bidder's attention is directed to D-15(d).

C-06. Contract Form and Bonds. The bidder's attention is directed to B-04.

C-07. Award. The Contract will be awarded, if at all, to the lowest responsible, responsive bidder. The lowest bid will be the bid whose price, after incorporating all accepted alternates, is the lowest and most responsive bid which was received.

C-08. Surety and Insurance Companies. The contract provides that the surety and insurance companies must be acceptable to the Owner. To avoid inconvenience, any bidder should get in touch with the Owner to determine whether the surety or insurance companies expected to be used on the work are acceptable to the Owner. (See also D-27 and D-30)

C-09. Employment of Georgia Citizens and Use of Georgia Products. Since the work provided for in this contract is to be performed in Georgia, it is the wish of the Owner that materials and equipment manufactured or produced in Georgia shall be used in the work and that Georgia citizens shall be employed in the work at wages consistent with those being paid in the general area in which the work is to be performed. This desire on the part of the Owner is not intended to restrict or limit competitive bidding or to increase the cost of the work; nor shall the fulfillment of this desire be asserted by the Contractor as an excuse for any noncompliance or omission to fulfill any obligation under the contract.

IMPORTANT

C-10. Trade Names. The attention of bidders and all other parties is called to the procedure under D-03 of the general conditions for the submission of trade names, brand names, or names of manufacturers for approval which aforesaid procedure is used in place of what is commonly known as an "or equal" provision. The successful bidder may furnish no products of any trade names, brand names, or manufacturers' names except those designated in the contract documents including published addenda.

C-11. Georgia State Finance and Investment Commission Policy Statement. It is the policy of the GSFIC that minority business enterprises shall have the maximum opportunity to participate in the GSFIC purchasing process. Therefore, the GSFIC encourages all minority business enterprises to compete for, win, and receive contracts for goods, services and construction. Also, the State encourages all companies to sub-contract portions on any State contract to minority business enterprises. Any questions regarding statements contained hereunder should be directed to the State Small and Minority Business Coordinator referenced below.

C-12. Georgia Income Tax Incentive. Bidders interested in taking advantage of the Georgia income tax incentives provided for by the Official Code of Georgia Annotated 48-7-38 relative to the use of minority subcontractors in the performance of contracts awarded by the State of Georgia should contact the State Small and Minority Business Coordinator at the following address:

Governor's Small Business and Entrepreneurial Office
Georgia Department of Economic Development
75 Fifth Street, NW, Suite 825
Atlanta, Georgia 30308
Telephone: (404) 962-4824
Fax: (404) 962-4829

C-13. Reciprocal Preference Law. For the purposes of bid evaluation only, Vendors resident in the State of Georgia will be granted the same preference over Vendors resident in another State in the same manner, on the same basis, and to the same extent that preference is granted in awarding bids for the same goods or services by such other State to Vendors resident therein over Vendors resident in the State of Georgia. NOTE: For the purpose of this law, the definition of a resident vendor is one who maintains a place of business with at least one employee inside the State of Georgia. A post office box address will not satisfy this requirement.

SECTION D
GENERAL CONDITIONS

D-01. General Conditions. The General Conditions of the Contract, D-01 thru D-71, inclusive, bound herein and hereafter referred to as the "General Conditions," shall govern in the event of any conflict with any other provisions of the contract documents unless notice to the contrary shall have been issued by the Owner bearing the imprimatur of the Owner as follows:

"By order of the Owner"

In the event of conflict, the Supplementary General Conditions control is over the General Conditions, and the Contract control is over the Supplementary and General Conditions. [See E-01 and D-49] The Architect has no authority to amend the General Conditions orally or in writing either expressly or by implication.

D-02. Legal Compliance. 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 his subcontractors. Without limiting the generality of the foregoing, the following laws are specifically referenced:

- a) The Drug-Free Workplace Act, O.C.G.A. Section 50-24-1, *et. seq.*
- b) Preference for Georgia Supplies, materials, equipment, and agricultural products, O.C.G.A. Sections 50-5-60 through 61.
- c) Preference for Georgia forest products, O.C.G.A. Section 50-5-63.
- d) Preference to local sellers of Georgia products, O.C.G.A. Section 50-5-62.
- e) Standards and Requirements for Construction, Alterations, *etc.*, O.C.G.A. Section 8-2-1 *et. seq.*
- f) Control of Soil Erosion and Sedimentation, O.C.G.A. Section 25-2-1, *et. seq.*
- g) Regulation of Fire and other Hazards, O.C.G.A. Section 25-2-1 *et. seq.* [See Article 12(a)]
- h) Regulation of Blasting Operations, O.C.G.A. Section 25-2-1 *et. seq.* and 25-9-1 *et. seq.*
- i) Providing Safe workplace, O.C.G.A. Sections 34-2-10 and 34-7-20. [See Article D-12(b)]
- j) Underground Gas Pipes, O.C.G.A. Section 25-9-1 *et. seq.* [See Article D-12(f)]
- k) High Voltage Safety Act, O.C.G.A. Section 46-3-30 *et. seq.* [See Article D-12(g)]
- l) Access and Use by Physically Handicapped Persons, O.C.G.A. Section 30-3-1 *et. seq.*
- m) Small and Minority Business Enterprises, O.C.G.A. Sections 50-5-120 *et. seq.* and 50-5-130 *et. seq.*
- n) Trading with the State or State Officials, O.C.G.A. Sections 45-10-20 to 45-10-71.
- o) Title VII of the Civil Rights Act
- p) Age Discrimination in Employment Act
- q) Americans with Disabilities Act
- r) Federal Occupational Safety and Health Act, 29 U. S. C. Section 651 *et. seq.* [See Article D-12(j)]
- s) Federal Emergency Planning and Community Right-to-Know Act, 42 U. S. C. Section 11001 *et. seq.* [See Article D-12(k)]

D-03. Trade Names

- 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 is desired to use products of trade or brand names or of manufacturers' names which 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 Architect and/or the Owner's Representative (hereinafter the "Architect") at least ten days prior to the date set for the opening of bids. The latter provision is a restriction that applies only to the party making a submittal. Therefore, the aforesaid restriction does not inhibit the Owner from adding trade names, brand names or names of manufacturers by addendum.
- b. *Burden of Proof.* The burden of proving acceptability of a proposed product must be accompanied by technical data that the party requesting approval desires to submit in support of his application. The Architect will give consideration to 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 application to the Architect for approval of a proposed 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. 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.

- c. *Issuance of Addenda.* If the submittal is approved by the Architect, an addendum will be issued to all prospective bidders. Issuance of an addendum is a representation to all bidders that the Architect in the exercise of his professional discretion established that the product submitted for approval is acceptable and meets or exceeds all express requirements. In the event a submittal shall have been rejected by the Architect and there shall have been a request for a conference as provided in this article pursuant to which conference the said submittal shall have been found to comply with the requirements of this article, a separate addendum covering the said submittal will be issued prior to the opening of bids. In order for the Architect to prepare an addendum intelligently, an application for approval of a 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, which 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. (See D-43, which requires the Contractor to do all cutting and fitting that may be required to make the several parts of his work come together properly and fit) Unless requests for approvals of other products have been received and approvals have been published by addendum in accordance with the above procedure, the successful bidder may furnish no products of any trade names, brand names, or manufacturers' names except those designated in the contract documents.
- d. *Conference with the Owner.* Any party who alleges that rejection of a submittal is the result of bias, prejudice, caprice, or error on the part of the Architect may request a conference with a representative of the Owner, PROVIDED: That the request for said conference, submitted in writing, shall have reached the Owner at least five days prior to the date set for the opening of bids, time being of the essence.

D-1. Definitions

- a. *Contract Documents.* The contract documents are as described in the Form of Agreement, D-71 of the general conditions. [See Exhibit E for specimen of form of agreement]
- b. *Parties.* The Owner, the Contractor and the Architect are those mentioned as such in the form of agreement. They are treated throughout the contract documents as if each were of the singular number and masculine gender.
- c. *Subcontractor.* The term subcontractor as employed herein includes only those having direct contract with the Contractor. It includes one who furnishes materials worked to a special design according to the plans and specifications of this work but does not include one who merely furnished materials not so worked.
- d. *Notices.* Written notice shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered mail to the last business address known to him who gives the notice.
- e. *Work.* The term "work" of the Contractor or subcontractor includes labor or materials or both.
- f. *Time Limits.* All time limits stated in the contract documents or shown on the construction progress schedule are of the essence of the contract. (See also D-46)
- g. *Applicable Law.* This contract shall be governed by the law of Georgia.
- h. *Specifications.* The term "Specifications" shall include all written matter in the bound volume or on the drawings and any addenda or modifications thereto. (See D-49)

- i. *Order of Condemnation.* An order of condemnation shall be in writing, shall be dated, shall be signed by the Architect, shall be addressed to the Contractor with a copy to the Owner, and shall contain three elements as follows:

FIRST ELEMENT: Description of work:

1. which has been omitted; or
2. which is unexecuted as of the date of the order of condemnation, the time for its incorporation into the work under the construction progress schedule having expired (See also D-46); or
3. which has not been executed in accordance with the methods and materials designated in the contract documents.

SECOND ELEMENT: Citation of the provision or provisions of the contract documents that has or have been violated.

THIRD ELEMENT: 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 Final Inspection pursuant to D-41 nor shall it be deemed to be authorization for amendment to the construction progress schedule. (See also D-19, D-20, and D-50)

An order of condemnation may be issued for failure of the Contractor to supply enough workmen or enough materials or proper materials. The order of condemnation in such event being based on D-46, q.v. and upon the definition of work as set forth under D-1(e), q.v. (See also D-26)

- j. *Proceed Order.* The proceed order is a written notice from the Owner pursuant to which the Contractor shall commence physical work on the site. (See D-46) A proceed order is a condition precedent to the execution of any work on the site by the Contractor.
- k. *Work Order.* A work order is a written notice from the Owner issued separately to the Contractor for each subcontractor. A work order is a condition precedent to the execution of any work on the site by a subcontractor.
- l. *Change Order Form.* The change order form is the instrument by which adjustments in the contract sum are effected pursuant to changes made in accordance with D-15. The change order form shall be accompanied by a breakdown in the form prescribed in a specimen which the Owner will supply to any bidder upon request. The Architect shall certify to the amount of the adjustment. The change order form shall be signed by the Contractor and the Owner. The breakdown is only for the purpose of enabling the Architect and the Owner to make a judgment on the dollar amount of the adjustment in the contract sum. No condition, term, qualification, limitation, exception, exemption, modification, or proviso shall appear in the breakdown. The breakdown shall be in the exact form and language of the above-mentioned specimen. In the event any condition, term, qualification, limitation, exception, exemption, modification, or proviso shall appear in a breakdown it shall be invalid unless expressly recited in the change order form under Paragraph 3, "Description of Change". Only such conditions, terms, qualifications, limitations, exceptions, exemptions, modifications and provisos as are recited under Paragraph 3, "Description of Change," are valid. (See also D-15)
- m. *Install, Deliver, Furnish, Supply, Provide and Other Such Words.* Such words mean the work in question shall be put in place by the Contractor ready for use unless expressly provided to the contrary.
- n. *Article Not Plenary.* This article is not entire, plenary, or exhaustive of all terms used in the general conditions which require definition. There are definitions of other terms under articles to which the terms are related.
- o. *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. 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 ipso facto ground 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

an order of condemnation within thirty (30) days after the Owner shall have given written notice of said breach to the Contractor and the surety on the performance bond with written demand of the Owner for curing of the delinquency. The Architect does not have authority to declare the Contractor in default.

- p. *Cross-reference and Citations of Articles and Paragraphs of the General Condition.* Cross-references and citations of articles and paragraphs of the general conditions are for the convenience of the Contractor, Architect 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.
- q. *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 and words having technical or trade meanings shall be given their customary meaning in the subject business, trade or profession.
- r. *Shop Drawings.* Shop drawings are drawings, schedules, data, catalogue cuts, manufacturers' published recommendations, charts, bulletins, brochures, illustrations, circulars, roughing drawings or formulae distributed by Contractors, subcontractors, manufacturers, material men, or suppliers for use in installing work. (See also D-53)
- s. *Owner.* See Supplementary General Conditions, Section E.
- t. *Architect.* See Supplementary General Conditions, Section E.
- u. *Contractor.* The successful bidder who provides the lowest responsive bid and to whom a contract is awarded. The Contractor will execute a contract based on the specimen found at Exhibit E.

D-2. Identification, Correlation, and Intent of Documents. The contract documents are complementary, and what is called for by one shall be as binding as if called for by all. The Contract Documents consist of the Form of Agreement between Owner and Contractor with these General Conditions, Supplementary and other Conditions, the Drawings, the Specifications, all Addenda issued prior to the execution of this Agreement, and all Modifications issued by the Owner after execution of the Contract such as Change Orders, and written interpretations. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. Work not covered in the Contract Documents will not be required unless it is necessary to produce the intended results. [See also D-1(m), D-36, D-37, and D-45]

D-3. Complete, Definite, and Clear Instructions and Schedules of Drawings.

- a. *Refinement of Documents.* The Contractor shall do no work without complete, definite, and clear drawings and specifications. In the event the contract documents are not complete, definite, and clear the Contractor shall make demand upon the Architect in writing for additional instructions and shall furnish the Owner a copy of the aforesaid demand. With reasonable promptness the Architect shall furnish complete, definite, and clear instructions in writing, or by means of drawings, or in writing and by means of drawings. [See also D-2, D-14, D-18 and D-39] Such additional instructions if given orally shall be confirmed in writing or by drawings or both within a reasonable space of time. Any such additional instructions shall be consistent with the contract documents, true developments thereof, and reasonably inferable therefrom. The work shall be executed in conformity with the aforesaid instructions. The Architect shall furnish the Owner a copy of all additional instructions issued to the Contractor. [See also D-16 and D-39]
- b. *Schedules.* The Contractor and the Architect shall jointly prepare a schedule, subject to change from time to time in accordance with the progress of the work, fixing the dates at which the various detail drawings will be required, and the Contractor shall furnish them in accordance with that schedule. [See also D-5(b)]

D-4. OMITTED

D-5. Shop Drawings. The Contractor shall review, approve and submit to the Architect all Shop Drawings, Product Data and Samples required by the Contract Documents for approval. The Work shall be in accordance with approved submittals.

D-6. Drawings and Specifications at the Site. The Contractor shall keep at the site one copy of all drawings and specifications in good order with all addenda and change orders noted thereon and available to the Architect and to his representative(s).

D-7. Ownership of Drawings and Models. All drawings, specifications, and copies thereof furnished by the Architect are the property of the Owner. They are not to be used on other work, and with the exception of one set, are to be returned to the Architect on his request at the completion of the work. All models are the property of the Owner.

D-8. Samples. The Contractor shall furnish for approval all samples as directed. The work shall be in accordance with approved samples.

D-9. Materials, Appliances, and Employees

- a. *Payment for.* Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary for the proper execution and completion of the work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. (See also D-70)
- b. *Quality of Materials and Workmanship.* Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of the quality required by the specifications. 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. (See also D-13)
- c. *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. (See also D-14)

D-10. 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 hold the Owner harmless from loss on account thereof.

D-11. Surveys, Permits and Regulations

- a. *General.* 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 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 therewith, 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. (See also D-42)
- b. *Codes*
 - 1) International Building Code, with Georgia State Amendments
 - 2) International Mechanical Code, with Georgia State Amendments
 - 3) International Fuel Gas Code, with Georgia State Amendments
 - 4) International Plumbing Code, with Georgia State Amendments
 - 5) International Electrical Code, with Georgia State Amendments
 - 6) International Energy Conservation Code, with Georgia State Amendments

The latest edition of the above listed codes with all amendments as of the date of the opening of bids shall govern the installation of all work and is adopted and incorporated into the contract documents and made a part thereof by reference, Provided, however: That 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 state codes and Provided also: That 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 which are at variance to the above stated codes, all changes in the work necessary to eliminate 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.

D-12. Protection of Work and Property

- a. *Duty to Protect Property.* The Contractor shall continuously maintain adequate protection of all his work from damage (see also D-24) and shall protect all other property from damage, injury, or loss arising in connection with the work regardless of who may be the Owner of said property. He shall make good any such damage, injury, or loss except such as may be directly the result of errors in the contract documents or such as shall be caused directly by agents or employees of the Owner. (See also D-27)
- b. *Safety Precautions.* The Contractor shall comply with the rules and regulations of OSHA and/or 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 workmen and the public and shall post danger warnings against any hazards created by the construction operations. He shall designate a responsible member of his organization on the work whose duty shall be the prevention of accidents. In the absence of notice to the contrary, filed with the Architect in writing with copy to the Owner, this person shall be the superintendent of the Contractor. (See also D-14)
- c. *Emergencies.* In an emergency affecting the safety of life or the work or of adjoining property, the Contractor, without special instruction or authorization from the Architect or Owner, shall act, at his discretion, to prevent such threatened loss or injury. Any remuneration claimed by the Contractor on account of emergency work shall be determined in accordance with allowances permitted on force account under Case (c) of D-15 of the general conditions.
- d. *Blasting.* In the absence of an express provision in the contract permitting blasting, there shall be no blasting. If blasting is permitted under the contract and under the law which is applicable to the premises [including but not limited to O. C. G. A. Sections 25-8-1 *et. seq.* and 25-9-1 *et. seq.*], such blasting shall in all events be done in such manner as to prevent all scattering. [See also Article D-27]
- e. *Rain Water, Surface Water, and Back-up.* The Contractor shall protect all work, including but not limited to excavations and trenches, from rain water, 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. [See D-02(f)]
- f. *Underground Gas Pipe Law.* The Contractor by signing the contract acknowledges that he is fully aware of the contents and requirements of O.C.G.A. Section 25-9-1 *et. seq.*, and any amendments and regulations pursuant thereto, (the preceding requirements being hereinafter referred to as the "underground gas pipe law"), and the Contractor shall comply therewith. The Contractor acknowledges that the Contractor is the "person" defined in the above-mentioned underground gas pipe law (a) who will engage in the activities which are regulated thereby, (b) who is required to examine maps filed pursuant thereto, (c) who is required to give written notices to gas companies in accordance therewith, (d) who is required to receive written statements from gas companies as prescribed thereby, and (e) who is to perform and do certain things referred to therein only after observing the precautions with respect to underground gas pipes and facilities which are prescribed therein. These provisions of the contract do not repeal the restrictions under Subparagraph (d) of D-12 of the general conditions nor do they limit or reduce the duty of the Contractor otherwise owed to the Owner, to other parties, or to both. The Contractor agrees that the foregoing provisions supplement D-12 and D-27 of the general conditions. The Contractor agrees and acknowledges that any failure on his part to adhere to the underground gas pipe law shall not only be a violation of law

but shall also be a breach of contract and a specific violation of the provision under D-12 of the general conditions which pertains to safety precautions.

- g. *High Voltage Act.* The Contractor by signing the contract acknowledges that he is fully aware of the contents and requirements of O.C.G.A. Section 46-3-30 *et. seq.* and any amendments thereto, and Rules and Regulations of the Commissioner of Labor pursuant thereto (the preceding requirements being hereafter referred to as the "high voltage act"), and the Contractor shall comply therewith. The signing of the contract shall also confirm on behalf of the Contractor that he:
1. has visited the premises pursuant to D-15(d) of the general conditions and has taken into consideration the location of all electric power lines on and adjacent to all areas onto which the contract documents require or permit the Contractor either to work, to store materials, or to stage operations; and
 2. has obtained from the Owner of the aforesaid electric power lines advice in writing as to the amount of voltage carried by the aforesaid lines.

The Contractor agrees that he is the "person or persons responsible for the work to be done" as referred to in the high voltage act and that accordingly the Contractor is solely "responsible for the completion of the safety measures which are required by Section 3 of the high voltage act before proceeding with any work." The Contractor agrees that prior to the completion of precautionary measures required by the high voltage act he will neither bring nor permit the bringing of any equipment onto the site (or onto any area or areas onto which the contract documents require or permit the Contractor to work, to store materials, or to stage operations) with which it is possible to come within eight feet of any high voltage line as defined in the high voltage act, and the Contractor assumes complete and sole responsibility for any accident or accidents which may occur as a result of contact with a high voltage line or lines pursuant to operations arising out of performance of the contract. The foregoing provisions apply to power lines located (a) on the site and (b) on any area or areas onto which the contract documents require or permit the Contractor either to work, to store materials, or to stage operations, or (c) within working distance for equipment or materials being used on (a) and (b) above. These provisions of the contract do not limit or reduce the duty of the Contractor otherwise owed to the Owner, to other parties, or to both. The Contractor agrees that the foregoing provisions supplement D-12 and D-27 of the general conditions. The Contractor agrees and acknowledges that any failure on his part to adhere to the high voltage act shall not only be a violation of law but shall also be a breach of contract and a specific violation of the provision under D-12 of the general conditions which pertains to safety precautions. The Contractor is notified that the Rules and Regulations promulgated by the Commissioner of Labor under date of January 11, 1967, contain a statement under Section 12 that...

"The Division of Inspection of the Department of Labor will act in an advisory capacity to any person, firm, or corporation contemplating any operations near high voltage lines as defined in the Act..."

- h. *Building Construction Safeguards.* The Contractor acknowledges and agrees that he is the person responsible under the law and that he is the person EMPLOYING or directing others to perform labor within the meaning of O.C.G.A. Section 34-1-1 *et. seq.* He acknowledges and agrees likewise that he will comply with the aforesaid law.
- i. *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.
- j. *Occupational Safety and Health Act.* Contractor, by signing the contract, acknowledges that he is aware of and familiar with the contents and requirements of the Federal Occupational Safety and Health Act of 1970, 29 U. S. C. Section 651 *et. seq.*, as amended.
- k. *Emergency Planning and Community Right-to-Know Act.* Contractor, by signing the contract, acknowledges that he is aware of and familiar with the contents and requirements of the Federal Emergency Planning and Community Right-to-Know Act, 42 U.S.C. Section 11001 *et. seq.*, as amended.

D-13. Inspection of Work

- a. *Access to Work.* The Architect and his representatives shall at all times have access to the work wherever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and for inspection. [See also D-9]
- b. *Notice to Architect from Contractor Prior to Covering Work.* If the specifications, the Architect'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 Architect timely notice in writing of its readiness for inspection, and if the inspection is by any authority other than the Architect, of the date fixed for such inspection. (See also D-58) Inspections by the Architect shall be made promptly and where practicable at the source of supply. If any work should be covered without approval or consent of the Architect, it must, if required by the Architect, be uncovered for examination at the Contractor's expense. (See also D-58)
- c. *Re-examination or Re-testing of Work Covered pursuant to Consent of Architect.* Re-examination or re-testing of questioned work covered pursuant to consent of the Architect may be ordered by the Architect, and if so ordered the work must be uncovered by the Contractor. If such work be found in accordance with the contract documents the Owner shall pay the cost of re-examination and replacement or of re-testing. If such work be found not in accordance with the contract documents the Contractor shall pay such cost unless he shall show that the defect in the work was caused by another Contractor, and in that event the Owner shall pay such cost. Re-examination or re-testing under the terms of D-13(c) applies only to work which has been covered with consent of the Architect. Work covered without consent of the Architect must be uncovered for examination as provided under D-13(b).
- d. *Inspection Does Not Relieve Contractor.* Under the contract documents the Contractor has assumed the responsibility of furnishing all services, labor 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, resident engineer inspector, clerk-of-the-works, engineers employed by the Architect, representatives of the Architect, or the Architect shall in any way diminish, relieve, or alter said responsibility and undertaking of the Contractor; nor 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 resident engineer inspector has no power to make decisions, to accept or reject work, or to consent to the covering of work. The resident engineer inspector owes no duty to the Contractor. (See also D-38, D-41, and D-60)
- e. *False Start.* In the event notice of readiness pursuant to D-13(b), above, shall have been issued prematurely by the Contractor, his action shall be deemed to be a "false start", and 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. [See also D-41 for further example of "false start"]

D-14. Superintendence and Supervision by Contractor

- a. *Superintendent of Contractor.* The Contractor shall keep on his work during its progress and until the final certificate has been executed by the Architect a competent superintendent and any necessary assistants, all satisfactory to the Architect. The superintendent shall not be changed except with the consent of the Architect unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ. The superintendent shall represent the Contractor in his absence, and all directions given to the superintendent shall be as binding as if given to the Contractor. [See also D-9, D-12, D-15(c) and D-60]
- b. *Supervision by Contractor.* The Contractor shall supervise and direct the Work, using his best skill and attention and he shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract. [See also D-40 and D-41]

D-15. Changes in the Work

- a. *Owner's Right to Make Changes.* The Owner, without invalidating the Contract, may order Changes in the Work consisting of additions, deletions, or modifications, the Contract Sum and the Contract Time being adjusted accordingly. The Contractor hereby expressly agrees that the Contractor shall have no right to a claim for damages or extended overhead because of changes made by the Owner. Such work is hereinafter designated "change" or "changes". All such changes shall be performed under the conditions of the original contract except that any claim for extension of time caused thereby shall be adjusted at the time of signing of the change order form. All such changes in the Work shall be authorized only by written Change Order signed by the Owner.
- b. *Cost to Owner for Change.* The cost or credit to the Owner from a change in the Work shall be determined in one or more of the following ways:
 - Case 1. By estimate and acceptance of a lump sum.
 - Case 2. By Unit Prices named in the Contract or subsequently agreed upon. Unit Prices are NET and include all compensation due the Contractor.
 - Case 3. By force account, which is defined as expenditures allowed under D-15 plus a percentage of percentages as stated hereinafter. [see paragraph (e)]
- c. *Changes Forbidden without Consent of Owner.* Neither the Architect nor the Contractor shall make any change whatsoever in the work without authorization or order of the Owner in writing except in emergency. The Contract Sum and the Contract Time may be changed only by written Change Order.
- d. *Existing Conditions.* By executing the Contract, the Contractor represents that it has visited the site and familiarized itself with the local conditions under which the Work is to be performed. The Owner does not undertake to represent or warrant site or local conditions.
- e. *Cost to Owner, Allowances for Contractor and Allowable Expenditures.* In cases (1) and (3) above, the "allowance for overhead and profit" combined, included in the total cost to the Owner, shall be based upon the following schedule:
 1. For the Contractor an allowance for work which he performs with his own forces, not to exceed 20% of his "net additional allowable expenditures", if any, for changes.
 2. For a subcontractor an allowance for work which he performs with his own forces, not to exceed 20% of his "net additional allowable expenditures", if any, for changes. A subcontractor shall receive no allowance for overhead and profit on work not performed by his own forces. Under this Contract, the forces of a subcontractor are deemed to be and are the forces of the subcontractor. (See also D-36 and D-37)
 3. For the Contractor an allowance for work performed by his subcontractors, not to exceed 7 1/2% of the amount, if any, due the subcontractor for changes.

The above percentages shall be applied to the "net allowable expenditures" if any, as limited and defined herein. If the net difference between "allowable expenditures" and savings results in a decrease in expenditures, the amount of credit allowed the owner shall be the net decrease without and credit for profit and overhead. "Net additional allowable expenditures" as used herein shall mean the difference between all "allowable expenditures" and savings. The term "allowable expenditures" is limited to and defined as items of labor or materials, the use of heavy construction equipment and all such items of cost as insurance premiums, social security and old age and unemployment insurance, and (in cases where there is an extension of time) pro rata expenditures for time of foreman employed in the direct superintendence of productive labor in execution of changes. All expenditures not included in the term "allowable expenditures" as limited and defined in this article shall be considered as overhead, including but not limited to insurance other than that which is mentioned in this article, bond premiums, supervision, travel (meals, transportation and lodging), superintendence (except pro rate time of foremen as referred to herein), timekeepers, clerks, watchmen, hand tools, small tools, incidental job burdens and office expense. Any other provisions in the Contract Documents to the contrary notwithstanding, only demonstratable, direct, out-of-pocket expenditures for the changes plus percentages as set forth hereinabove shall be allowable for

changes. The Contractor shall provide to the Owner, upon request, any and all necessary information the Owner may require in order to verify any and all costs associated with "Changes in the Work."

- f. *Breakdown of Expenditures, Cases (a) and (c).* To accompany all change orders, the Contractor shall furnish a breakdown of expenditures for labor and materials by units and quantities in the form prescribed by the Owner, and the breakdown shall be accompanied by the following declaration. "I do solemnly swear, under criminal penalty of a felony for false statement subject to punishment by not less than one year nor more than twenty years of penal servitude, that the costs shown hereinabove do not exceed current costs for like services or materials and do not exceed the actual costs to the Contractor therefore; and that the quantities shown do not exceed actual requirements." For all force account changes the Contractor shall promptly and in no event later than thirty (30) days after receipt of written demand therefore pursuant to D-15(g) submit to the Architect a complete, accurate, and final breakdown and account together with vouchers, showing all expenditures and percentages allowable under Case (c). For all unit price changes the Contractor shall promptly and in no event later than thirty (30) days after receipt of written demand therefore pursuant to D-15(g) submit to the Architect an accurate account of the quantity of work performed under Case (b). In any case, the Architect shall certify to the amount [including under Case (a) and Case (c) the allowance prescribed in the contract for overhead and profit] due the Contractor. [See also D-1(1) and D-50] The Contractor shall obtain and furnish as backup 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.
- g. *Time of Submission of Claims ["Statement of Claim"].* Budgeting and cash flow being of material importance to the Owner, no claim of the Contractor on account of any change or on account of any alleged negligence of the Architect or Owner whether said claim shall be accrued or prospective, shall be valid unless a "statement of claim" in full accompanied by vouchers and other supporting data shall have been filed with the Owner by the Contractor not later than thirty (30) days after receipt of written request thereof by the Contractor from the Owner, time being of the essence. The "statement of claim" shall contain a concise and clear recital of the ground or grounds on the basis of which the claim is asserted, including a designation of the provision or provisions of the contract documents on which the claim is based. The statement of claim shall indicate the dollar amount of the claim.

D-16. Claims

- a. *Extra Cost.* If the Contractor maintains that any instructions by drawings or otherwise involve extra cost to the Owner under this Contract, he shall give the Owner and the Architect written notice thereof within a reasonable time after the receipt of such instructions, and in any event before proceeding to execute any change except in emergency endangering life of property. The allowances to the Contractor shall then be as provided under D-15. No claim for extra cost shall be valid unless so made.
- b. *Damages.* If either party to this Contract should suffer damage in any manner because of any wrongful act of neglect of the other party or of anyone employed by the other party, then he shall be reimbursed by the other party for such damage. No claim of the Contractor for damages shall be valid unless written notice thereof shall have been received by the owner by registered mail within fifteen (15) days after occurrence of the event on which the claim is based. (See also D-15, D-39 and D-41)
- c. *Protests.* All reference to arbitration are deleted from the Contract Documents. Decisions of the Architect shall be rendered in all cases where provided for under the General Conditions of the Contract, but no decision of the Architect shall deprive the Owner or the Contractor of any form of redress which may be available under the laws of the State of Georgia to contracting parties. Any decision of the Architect shall be final and binding on the Contractor unless the Contractor shall have given written notice of protest to the Owner by registered mail within ten days of the receipt of the decision.

- D-17. Deductions for Uncorrected Work.** If the Architect 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; but there is no duty on the part of the Owner 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.

D-18. Delays and Extensions of Time

- a. *Grounds.* If the Contractor is delayed at any time in the progress of the Work by changes ordered in the Work, by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any causes beyond the Contractor's control, then the contract time shall be extended by Change Order for such reasonable time as the Architect may determine. The Contractor expressly agrees that the Contractor's sole remedy for such delay shall be an extension of contract time and that the Contractor shall make no demand for damages or extended overhead.
- b. *Filing of Claim.* No such extension shall be made for delay occurring more than ten (10) days before claim thereof is made in writing to the architect with copy to the Owner. In the case of a continuing cause of delay, only one claim is necessary, but no claim for a continuing delay shall be valid unless the contractor, within ten days from the cessation of the delay, shall have given notice in writing to the architect, with copy to the Owner, as to the amount of additional time claimed.
- c. *Delay in Furnishing Drawings (See also D-5).* If no schedule or agreement stating the dates upon which drawings or approval of shop drawings shall be furnished is made, then no claim for delay shall be allowed on account of failure of the architect to furnish drawings or approval of shop drawings until two weeks after demand thereof and not then unless such claim be reasonable.
- d. *No Damages for Delay.* In the event of any delay, not the fault of the Contractor, the Contractor shall be entitled to an extension of time for completion only, and shall not be entitled to any additional payment on account of such delay. Without limiting the foregoing, except as otherwise specifically provided under D-15 or D-22, the Contractor shall not be entitled to payment or compensation of any kind from the Owner for direct, indirect or impact damages, including but not limited to costs of acceleration arising because of hindrance or delay from any cause whatsoever, whether such hindrances or delays be reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable; provided, however, that this provision shall not preclude recovery by the contractor of damages for hindrances or delays due solely to fraud or bad faith on the part of the Owner or his agents.

D-19. Correction of Work

- a. The Contractor shall promptly correct any Work rejected by the Architect as defective or as failing to conform to the Contract Documents whether observed before or after Completion and whether or not fabricated, installed or completed, and shall correct any Work found to be defective or nonconforming within a period of one year from the Date of Completion of the Contract or within such longer period of time as may be prescribed by law or the terms of any applicable special warranty required by the Contract Documents. The provisions of this Article apply to Work done by Subcontractors as well as to Work done by direct employees of the Contractor. [See D-1(i)]
- b. *Remedy of the Owner for Breach of Order of Condemnation.* If the contractor does not make good a deficiency within a reasonable space of time fixed in an order of condemnation, the Owner may:
 1. Remove the condemned 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; and
 2. Supply omitted work, perform unexecuted work, 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, Provided: That the architect shall approve the amount charged to the contractor. (See also D-21)

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 orders of condemnation are of the essence of the contract.

- D-20. Correction of Work after Final Payment.** Neither (1) the final certificate, (2) nor any decision of the architect, (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 there from and pay for any damage to other work resulting there from. The Owner shall give notice of observed defects or omissions with reasonable promptness. The Contractor shall within the space of time designated in orders of condemnation and without expense to the Owner, correct, remedy, replace, re-execute, supply omitted work, or remove from the premises all work condemned by the architect. The Contractor shall give prompt notice in writing to the architect, with copy to the Owner, upon completion of the supplying of any omitted work or the correction of any work condemned by the architect. In the absence of said notice, it shall be and is presumed under this contract that there has been no correction of the condemned 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 orders of condemnation without expense to the Owner, the Owner, after ten 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. 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 material men, remains the primary, direct responsibility of the Contractor. The foregoing obligation of the Contractor shall remain in effect until the same shall have been extinguished by operation of the statute of limitations. 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 final certificate of the architect, and (2) that for not less than one year from the date of the final certificate of the architect, 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, material men, or manufacturer whose guaranty or warranty is called for, and the Contractor agrees that:

- a. The Contractor is jointly and severally liable with such subcontractors, material men, or manufacturers.
- b. The said subcontractors, material men, or manufacturers are agents of the Contractor for purposes of performance under this article, 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.
- c. 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, Provided: That the Owner shall have furnished the Contractor with a copy of notice served on the subcontractor, material men, or manufacturer.
- d. The Contractor will bind his subcontractor, material men, and manufacturers to the terms of this article.

The calling for or the furnishing of written warranties shall in no way limit the contractual obligation of the Contractor as set forth hereinabove. 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. [See also D-1(i), D-25, and D-60]

- D-21. The Owner's Right to Do Work.** If the Contractor should neglect to prosecute the work properly 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, provided, however, that the Architect shall approve the amount charged to the Contractor. (See also D-19 and D-22)
- D-22. Right of the Owner to Terminate Contract.** If the Contractor defaults or persistently fails or neglects to carry out the Work in accordance with Contract Documents or fails to perform any provisions of the Contract, the Owner may, after seven (7) days written notice to the Contractor and without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor or, at its option that sufficient cause exists to justify such action, may terminate the Contract and take possession of the site and of all materials, equipment, tools and construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method it may deem expedient, and if

the unpaid balance of the Contract Sum exceeds the expense of finishing the Work, such excess shall be paid to the Contractor, but if such expense exceeds such unpaid balance, the Contractor shall pay the difference to the Owner.

D-23. Contractor's Right to Stop Work or Terminate Contract. If the Owner fails to make payment for a period of fifteen (15) days after receipt of proper pay request, the Contractor may, upon seven (7) additional days written notice to the Owner, terminate the Contract and recover from the Owner payment for all Work executed.

D-24. Application for Payments

- a. *Periodical Estimates and Receipts.* The Contractor shall submit to the Architect in accordance with a form to be supplied by the Owner [specimen of which will be supplied to any bidder on request] an application [sometimes herein designated "periodical estimate"] for each payment, and, if requested by the Owner or Architect, receipts or other vouchers, showing his payments for materials and labor, including payments to subcontractors as required by D-37. (See also D-32 and D-50)
- b. *Initial Breakdown and Periodical Payments.* If payments are made on valuation of work done, such application shall be submitted at least ten days before each payment falls due, and the Contractor shall, before the first application, submit to the Architect a schedule of values of the various parts of the work, including quantities, aggregating the total sum of the contract, divided in such manner as to facilitate payments to subcontractors in accordance with D-37, on a form to be furnished by the Owner with a complete breakdown of the contract price so arranged and so itemized as to meet the approval of the Architect and, if requested, supported by such evidence as to its correctness as the Architect may direct. The schedule designated herein the "initial breakdown" [specimen of which will be supplied to any bidder on request], when approved by the Architect shall be used as a basis for certificates of payment, unless it be found to be in error. In applying for payments, the Contractor shall submit a statement based upon this schedule on a periodical estimate form to be supplied by the Owner [specimen of which will be supplied to any bidder], and, if requested by the Architect or Owner, itemized in such form and supported by such evidence as the Architect or Owner may direct showing the Contractor's right to the payment claimed on the periodical estimate.
- c. *Materials Storage.* If payments are made on account of materials delivered and suitably stored at the site but not incorporated in the work, they shall, if required by the Owner or the Architect, 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. (See also D-28 and D-32) The Contractor is responsible for the existence, protection, and, if necessary, replacement of materials until execution of the final certificate of the Architect. (See also D-12, D-25, and D-41) The Owner shall not pay for any materials stored off site.

D-25. Certificate of Payments

- a. *Issuance.* If the Contractor has made application for payment as provided under D-24, the Architect shall not later than the date when each payment falls due issue to the Contractor a certificate for such amount as he decides to be properly due or state in writing his reasons for withholding a certificate.
- b. *Effect.* No certificate issued, nor payment made to the Contractor, nor 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. (See also D-20) The making of the final payment shall constitute a waiver of all claims by the Owner other than those arising from unsettled liens, from faulty work appearing after final payment, or from requirements of the specifications or drawings. Acceptance of the final payment shall operate as and shall be a release to the Owner from all claims of any kind or character under the contract except for such specific amount or amounts as may have been withheld to cover the fair value of any incomplete work which has been certified by the Architect under the provision of Paragraph (d) of Article 5 of the form of agreement as incomplete through no fault on the part of the Contractor.
- c. *Date and Rate of Payment.* Progress payments will be made by the Owner to the Contractor in accordance with Article 4 of the form of agreement. Final payment will be made in accordance with Article 5 of the form of agreement. The date and rate of payment are subject to D-26. Sums retained pursuant to the present article are and remain the property of the Owner until such time as the Contractor shall have

become entitled to receive payment of such retainage by (a) furnishing the remainder of the *quid pro quo* under the contract and (b) complying in full with the terms of the contract.

D-26. Payments Withheld. The Architect 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 on account of:

- a. Defective work not remedied. (See also D-19)
- b. Claims filed or reasonable evidence indicating probable filing of claims.
- c. Failure of the Contractor to make payments properly to subcontractor or for materials or labor. (See also D-9 and D-37)
- d. A reasonable doubt that the contract can be completed for the balance then unpaid.
- e. Damage to another contractor or to some third party. (See also D-12)
- f. Failure to maintain a rate of progress in accordance with the construction progress schedule. [See also D-1(i), D-25(c), and D-46]
- g. Failure to supply enough skilled workmen or proper materials. (See also D-1 and D-19)

When the above grounds are removed, payment shall be made for amounts withheld because of them. At the option of the Owner adherence to the construction progress schedule shall be a condition precedent to the right of the Contractor to demand payment of a periodical estimate. No omission on the part of the Owner to exercise the aforesaid option shall be construed to be a waiver of breach of the construction progress schedule or acquiescence therein, and the Owner may exercise its option from time to time and as often as may be expedient.

D-27. Indemnification, Insurance and Hazards

- a. *Responsibility.* The Contractor shall be responsible to the Owner from the time of the signing the agreement or from 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. (See also D-12)
- b. *Indemnification Agreement.* Contractor hereby agrees to indemnify and hold harmless the Owner, the State of Georgia and its departments, agencies and instrumentalities and all of their respective officers, members, employees and directors (hereinafter collectively referred to as the "Indemnitees") from and against any and all claims, demands, liabilities, losses, costs or expenses, including attorneys' fees, due to liability to 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. If and to the extent such damage or loss (including costs and expenses) as covered by this indemnification is paid by the State Tort Claims Trust Fund, the State Authority Liability Trust Fund, the State Employee Broad Form Liability Fund, the State Insurance and Hazard Reserve Fund, and other self-insured funds (all such funds hereinafter collectively referred to as the "Funds") established and maintained by the State of Georgia Department of Administrative Services Risk Management Division (hereinafter "DOAS") the Contractor agrees to reimburse the Funds for such monies paid out by the Funds.
 1. This indemnification applies where the Indemnitees are partially responsible for the situation giving rise to the claim, provided however, that this indemnification does not apply to the extent of the sole negligence of the Indemnitees.
 2. This indemnification does not extend beyond the scope of this contract and the work undertaken there under. Nor does this indemnification extend to claims for loses or injuries or damages incurred directly by the Indemnitees due to breach or default by the Indemnitees under the terms and conditions of this contract.

3. DOAS, Risk Management will endeavor to notify affected insurers of claims made against the State which fall within this indemnity. In the event of litigation, the Attorney General will endeavor to keep the Contractor and its general liability insurer as named on the insurance certificate informed regarding the claims and settlement. [See D-27.2.2(c) below]

c. Insurance Requirements

1. *Insurance Certificates.* The Contractor shall, prior to the commencement of work, procure the insurance coverage identified below at the Contractor's own expense and shall furnish the Owner an insurance certificate listing the Owner as the certificate holder. The insurance certificate must provide the following:
 - a) Name and address of authorized agent
 - b) Name and address of insured
 - c) Name of insurance companies
 - 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 forty-five day notice of cancellation / non-renewal (See D-27.2(a) below)
 - m) Evidence of Insurance Coverage shall be provided on a form acceptable to the Owner
2. *Policy Provisions.* Each of the insurance coverage 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-insured or group self insured, 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:
 - a) The insurance company agrees that the policy shall not be canceled, changed, allowed to lapse or allowed to expire until forty-five (45) days after the Owner has received written notice thereof as evidenced by return receipt of registered letter 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.
 - b) 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 Insured").
 - c) 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. In the event of litigation, any settlement on behalf of the indemnities must be expressly approved by the Attorney General. The contractor and its insurance carrier may retain, but are not obligated to retain, counsel to assist with the defense of the Indemnitees, in which case there will be mutual cooperation between the Attorney general and such counsel.
 - d) Self-insured retention, except for qualified self-insurers or group self-insurers, in any policy shall not exceed \$100,000.00.
3. *Insurance Coverage.* The Contractor also agrees to purchase and have the authorized agent state on the insurance certificate that the following types of insurance coverage, not inconsistent with the policies and requirements of O.C.G.A. § 50-21-37, have been purchased by the Contractor. The minimum required coverage and liability limits are as follows:

- a) *Workers' Compensation Insurance.* The Contractor agrees to provide 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 Worker's Compensation stating the Contractor qualifies to pay its own worker's 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 prior to the commencement of work:

"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 worker's compensation insurance."

- b) *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 prior to the commencement of work:

"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."

- c) *Commercial General Liability Insurance.* The Contractor shall provide Commercial General Liability Insurance (1993 ISO Occurrence Form or equivalent) which 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 Commercial General Liability Insurance shall provide at 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:

- i. The policy shall name as additional Insured the officers, members, and employees of the Owner and the State of Georgia, but only with respect to claims that arise out of contractor's negligence in performing the work or the additional insured's general supervision of such operations, including completed operations under this contract, but only for such claims for which the Georgia Tort Claims Act, O.C.G.A. 50-21-20 *et seq.* is not the exclusive remedy.
- ii. The coverage extended to the additional insured for any claims not covered by the Georgia Tort Claims Act shall be no broader than the coverage extended to the Contractor and is not expanded to cover claims and losses that are not insurable under the contractor's policy.
- iii. The policy or policies must be on an "occurrence" basis.

iv. The policy must include separate aggregate limits per project.

- d) *Commercial Business Automobile Liability Insurance.* The Contractor shall provide Commercial Business Automobile Liability Insurance which 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:

- i. The policy shall name as additional Insured the officers, members, and employees of the Owner and the State of Georgia, but only with respect to claims that arise out of contractor's negligence in performing the work or the additional insured's general supervision of such operations under this contract, but only for such claims for which the Georgia Tort Claims Act, O.C.G.A. 50-21-20 *et seq.* is not the exclusive remedy.
- ii. The coverage extended to the additional insured for any claims not covered by the Georgia Tort Claims Act shall be no broader than the coverage extended to the Contractor and is not expanded to cover claims and losses that are not insurable under the contractor's policy.

- e) *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 minimum amount of Umbrella limits required above the coverage and minimum limits state in D-27.2.3(a), (b), (c) and (d) shall be:

Minimum Combined Primary Liability and Excess Umbrella Limits of:
\$2,000,000 per Occurrence
\$2,000,000 Aggregate

Additional Requirements for Commercial Umbrella Liability Insurance:

- i. The policy shall name as additional Insured the officers, members, and employees of the Owner and the State of Georgia, but only with respect to claims that arise out of contractor's negligence in performing the work or the additional insured's general supervision of such operations under this contract, but only for such claims for which the Georgia Tort Claims Act, O.C.G.A. 50-21-20 *et seq.* is not the exclusive remedy.
- ii. The coverage extended to the additional insured for any claims not covered by the Georgia Tort Claims Act shall be no broader than the coverage extended to the Contractor and is not expanded to cover claims and losses that are not insurable under the contractor's policy.
- iii. The policy must be on an "occurrence" basis.

Builders Risk Insurance. Contractor shall provide a builder's risk policy to be made payable to the Owner and the Contractor, as their interest may appear. The policy shall be equal to 100% of the contract sum and written on a 1991 Cause of Loss—Special Form, or revised equivalent. All deductibles shall be the sole responsibility of the Contractor and in no event shall the amount of any deductible exceed \$1,000.

- g) *Disposition of Insurance Documents.* Prior to commencing work, one certificate of insurance with all endorsements attached must be deposited with Owner for each insurance policy required.

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 Architect shall have executed the final certificate. (See D-20, D-24, D-29, and D-71 and Article 5, Form of Contract)
 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.
- D-28. Affidavits.** Before receiving any portion of the retainage (see also D-24 and D-32), the Contractor will be required to furnish a non-influence affidavit as shown in Exhibit A and a statutory affidavit in the exact form as shown in Exhibit B.
- D-29. Bonds on Roofs and Walls.** *Not applicable.*
- D-30. Performance Bond and Payment Bond.** The Bid Documents require the Contractor to furnish both a performance bond and a payment bond, said bonds shall be provided on the forms as set forth in Exhibit C and Exhibit D. The surety must be one which is licensed to do business in the State of Georgia, and the surety must in addition be acceptable to the Owner. [NOTE: To avoid inconvenience, the Contractor should get in touch with the Owner to determine whether the surety he expects to use is acceptable to the Owner.]
- D-31 Employment of Georgia Citizens and Use of Georgia Products.** Since the work provided for in this contract is to be performed in Georgia, it is the wish of the Owner that materials and equipment manufactured or produced in Georgia shall be used in the work and that Georgia citizens shall be employed in the work at wages consistent with those being paid in the general area in which the work is to be performed. This desire on the part of the Owner is not intended to restrict or limit competitive bidding or to increase the cost of the work; nor shall the fulfillment of this desire be asserted by the Contractor as an excuse for any noncompliance or omission to fulfill any obligation under the contract.
- D-32. Liens.** Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the Owner a complete release of all liens or claims arising out of this contract, 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 furnish a release or receipt in full, 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 moneys that the latter may be compelled to pay in discharging such lien or claim, including all costs and a reasonable attorney's fee. (See also D-24, D-25, and D-28)
- D-33. Assignment.** Neither party to the contract shall assign the contract or sublet it as a whole nor shall the Contractor assign any moneys due or to become due to him hereunder.
- D-34. Mutual Responsibility of Contractors.** Should the Contractor cause damage to any separate Contractor on the work the Contractor agrees, upon due notice, to settle with such Contractor by agreement if he will so settle. If such separate Contractor sues the Owner on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor who shall defend such proceedings at his own expense, and if any judgment against the Owner shall arise there from, the Contractor shall pay or satisfy it and pay all costs incurred by the Owner.
- D-35. Separate Contracts.** The Owner reserves the right to perform work related to the Project with its own forces, and to award separate contracts in connection with other portions of the Project or other work on the site under these or similar Conditions of the Contract. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly regulate, schedule, connect, and coordinate his work with theirs.
- D-36. Subcontractors, Materialmen, Suppliers and Employees**
- a. *Subcontractor.* A Subcontractor is a person or entity who has a direct contract with the Contractor to perform any of the Work at the site.

- b. *Submission of List.* Unless otherwise required by the Contract Documents, the Contractor, as soon as practicable after the award of the Contract, shall furnish to the Owner in writing the names of Subcontractors for each of the principal portions of the Work. The Contractor shall not employ any Subcontractor to whom the Owner may have a reasonable objection. The Contractor shall not be required to contract with anyone to whom he has a reasonable objection. The contract requires each Subcontractor, to the extent of the Work to be performed by the Subcontractor, (1) to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor, all the obligations and responsibilities which the Contractor, by these Documents, assumes toward the Owner, and (2) allow to the Subcontractor the benefit of all rights, remedies and redress afforded to the Contractor by these Contract Documents.
- c. *Warranty of Contractor.* The Contractor warrants that the subcontractors selected by him are reputable, skilled, reliable, competent, qualified in the trade or field in which they are to perform on the project, and thoroughly familiar with applicable codes.
- d. *Certification On Account Of.* The Architect shall, on request furnish to any subcontractor, wherever practicable, evidence of the amounts certified on his account.
- e. *Contractor Responsible for Acts and Omissions of Subcontractors, Materialmen, Suppliers and Employees.* The Contractor agrees that he is as fully responsible for the acts and omissions of his subcontractors, materialmen, suppliers, and employees and of persons either directly or indirectly employed by them as he is for the acts and omissions of persons directly employed by him.
- f. *No Contract Between Owner and Any Subcontractor, Materialman, Supplier or Employee.* Nothing contained in the contract documents shall create any contractual relation between the Owner and any subcontractor or between the Owner and any materialman, supplier, or employee of the Contractor or his subcontractors. [See also Article D-02, D-37, D-45, and D-60]

D-37. Relationship of Contractor and Subcontractors

- a. *Obligations of Each.* The Contractor agrees to bind every subcontractor and every subcontractor agrees to be bound by the terms of the contract documents insofar as they are applicable to his work.
- b. *Owner Not Obligated to Any Subcontractor.* There is no obligation on the part of the Owner to pay to or to see to the payment of any sums to any (1) subcontractor, (2) materialman, (3) supplier, (4) laborer, (5) employee, or (6) claimant as defined in the payment bond. [See also D-36(d)]
- c. *Incorporation of Terms in Subcontracts.* The Contractor agrees that failure on his part to incorporate in all subcontracts an express provision in accordance with D-37(a) above, shall be deemed to be and is a breach of an essential covenant.

D-38. Architect

- a. *Supervision.* The Architect shall have general supervision and direction of the work except in respect to safety as stated under D-12 and except as qualified by D-13 and D-60 of the general conditions. 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 ensure the proper execution of the contract.
- b. *Interpreter and Impartial Judge.* As the Architect is, in the first instance, the interpreter of the conditions of the contract and the judge of its performance, he shall side neither with the Owner nor with the Contractor but shall use his powers under the contract to enforce its faithful performance by both.

D-39. Architect's Decisions

- a. *Promptness.* The Architect shall make decisions with reasonable promptness after presentation of evidence on (1) any claim of the Owner or Contractor, (2) a demand of the Owner or Contractor for a decision on any

matter relating to the execution or progress of the work, or (3) a demand of the Contractor or Owner for interpretation of or additional instructions with respect to the contract documents.

- b. *On Artistic Effect.* The Architect's decisions in matters relating to artistic effect shall be final if within the terms of the contract documents.

D-40. Measurements and Dimensions. Before ordering material or doing work which 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. No consideration will be given to any claim based on differences between the actual dimensions and those indicated on the drawings. Any discrepancies between the drawings and/or the specifications and the existing conditions shall be referred to the Architect for additional instructions before any work affected thereby is given.

D-41. Notice of Readiness for Final Inspection. When the Contractor is ready for a final inspection, he shall give notice to the Architect and a copy to the Owner in the following words:

"The work on the contract for the [show name of improvement or project as it appears in the form of agreement] having been fully completed except as stipulated hereinbelow, it is requested that a final inspection be made promptly by the Architect in accordance with Article 5 of the form of agreement. The following work is incomplete through no fault of the Contractor [list any work which the Contractor regards as a proper exception under Subparagraph (d) of Article 5 of the form of agreement] "

No final inspection shall be made until such time as the Architect has received a letter in the exact form indicated above and a copy thereof has been received by the Owner. In the event the Contractor shall have issued the "Notice of Readiness for Final Inspection" prematurely [hereinafter referred to as "false start"] he shall be liable for the damage resulting from the aforesaid false start including but not limited to the salaries, professional fees, and travel and living expenses of the persons or parties inconvenienced by the aforesaid false start. The Contractor agrees that he may not defend or excuse any deviation from the contract documents on the ground (a) that the deviation was not brought to his attention by another person or party or other persons or parties or (b) that a subcontractor is or subcontractors are at fault.

D-42. Use of Premises. The Contractor shall confine 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 the Architect's instructions regarding signs, advertisements, fires and smoking. (See also D-11)

D-43. Cutting, Patching and Fitting. The Contractor shall do all cutting, fitting, or patching of his work that may be required to make its several parts come together properly and fit. (See also D-03, D-40, and D-53)

D-44. Cleaning Up. The Contractor shall at all time keep the premises free from accumulations of waste material or rubbish caused by his employees or work. 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 the Owner may remove the rubbish and charge the cost to the Contractor as the Architect shall determine to be just. (See also D-12 and D-27)

D-45. Specification Arrangement. The specifications are separated into numbered and titled divisions for convenience of reference. Neither the Owner nor the Architect assumes 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 Architect. (See also C-03, D-02, D-36, and D-37)

D-46. Commencement, Prosecution and Completion. The Contractor will be required (a) to commence work under this contract within ten days after date of written notice from the Owner to proceed [See D-1(j)], (b) to prosecute the work with faithfulness and energy (c) to install the various parts of the work with equal steps shown on the construction progress schedule and at the same rate shown on the construction progress schedule

to be furnished pursuant to D-50 and (d) to complete the work within the time stipulated in the proposal form as adjusted by any extensions of time provided for under D-15 and D-18. Commencement of work shall mean actual physical work on the site. [See Also D-1(f) and D-1(i)] In the event the Contractor shall be delinquent in respect to compliance with the time limits established in the construction progress schedule, he shall, within seven days after receipt of written demand of the Owner, commence working not less than a twelve hour day and no less than six days a week until such time as he shall have brought the amount of work in place into compliance with the construction progress schedule. Fulfillment of this requirement as to overtime work (hereinafter referred to as "recovery of lost time required of the Contractor for his breach of covenant as to time") shall not relieve the Contractor from liability for breach of the covenant as to time [Article D-1(f) of general conditions]. For account of recovery of lost time required of the Contractor for his 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. (See also D-25 and D-26)

- D-47. Alternates.** Unless otherwise stipulated all alternates are deductive. If a price is not provided for all alternates the Contractor's bid may be determined non-responsive and not considered for award.
- D-48. Drug-Free Work Place Act.-** The Contractor acknowledges that he is fully aware of the contents and requirements of O.C.G.A. 50-24-1 *et. seq.* The Contractor, upon submission of a bid in connection with this contract, does thereby certify that he and his subcontractors are and will remain in compliance with the aforesaid act.
- D-49. Conflicts.** The following principles shall govern the settlement of disputes which 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 drawings and specifications, the requirements of the specifications shall govern; and (d) as between the form of agreement and the specifications, the requirements of the form of agreement shall govern. Conflicts noted shall be reported to the Architect. The principles set forth herein shall not alter provisions of D-2 of the general conditions.
- D-50. Progress Reports.** Within such reasonable space of time as the Owner shall designate in writing, the Contractor shall submit to the Owner such schedule of quantities and costs, construction progress schedules, 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 which have any relevance to the work, estimates, records, and other data as the Owner may request concerning work performed or to be performed under this contract. When requested by the Owner, the Contractor shall give the Owner access to accounts relating to the foregoing. 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 condemned work shall have been made good, (c) written notice that condemned work has been made good, (d) written notice as to the date or dates by which work which has not been performed with equal steps and at the same rate required by the construction progress schedule shall have been brought into conformity with the construction progress schedule, (e) date by which any undisputed claim of a subcontractor, materialman, or laborer shall have been paid, (f) written advice regarding the nature and amount of any disputed claim of a subcontractor, materialman, or laborer, and (g) information regarding work performed upon demand of the Owner pursuant to D-15. Prior to submitting the first periodical estimate (see D-24), the Contractor shall have furnished to the Owner and the Architect a construction progress schedule (based on work in place only) in accordance with the style and format of a specimen to be furnished by the Owner [copies of which specimen will be furnished to any bidder on request]. (See also D-1(i), D-19, D-20, D-26, and D-46)
- D-51. OMITTED**
- D-52. Trading with the State Statute.-**In submitting a bid, the bidder certifies that the provisions of law contained in O. C. G. A. Sections 45-10-20 to 45-10-71 prohibiting officials and employees of the state from engaging in certain transactions with the state and state agencies, have not and will not be violated in any respect in regard to this contract.
- D-53. Manufacturer's Recommendations.** In the event the contract shall require that given work or materials shall be installed in accordance with the manufacturer's recommendations or requirements, the Contractor shall

obtain for his use at the site in executing the work copies of the bulletin, circular, catalogue, or other publication of the manufacturer bearing the title, number, edition, date, etc., [hereinafter referred to as the "doctrine"] designated in the contract.

- D-54. Keys.** Keys with tags 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.
- D-55. Operation and Maintenance Data and Instructions.** The Contractor shall furnish proper instructions to the lessee of the Owner in the presence of the Architect concerning operation and maintenance of all mechanical and electrical equipment. The Contractor shall give notice in writing to the Architect with copy to the Owner at least fifteen days prior to the date on which it is proposed to give instructions to the lessee.
- D-56. 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. The Contractor shall locate all equipment that must be serviced, operated, or maintained in fully accessible positions.
- D-57. Cash Allowances.** The Contractor shall include in the contract sum all allowances named in the contract documents.
- D-58. Testing Services.** Laboratories for testing services shall be selected by, engaged by, and responsible to the Architect. This article does not apply to verification of design mix on concrete. (See also D-13 and D-65)
- D-59. Drilling Samples and Log of Drilling Wells.** Not used.
- D-60. 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 plant to execute the work promptly and efficiently in compliance with the requirements of the contract documents. The Contractor having the obligation to keep a competent superintendent on the work during its progress, to employ only skilled mechanics, and to enforce strict discipline and good order among his employees, the Contractor, himself, is responsible for seeing that the work is installed in accordance with the contract documents. The Contractor warrants to the Owner that all materials and equipment incorporated in the Work will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not conforming to these requirements may be considered defective. (See also D-09, D-13, D-14, D-15, D-20, D-36, D-38, and D-39)
- D-61. Employment of Georgia Citizens and Use of Georgia Products and Georgia Forest Products.** Not used.
- D-62. Mechanical Systems, Retainage Pending Balancing of.** Not used.
- D-63. Water Heaters.** Not used.
- D-64. Effect of Addenda, Amendments, Bulletins, Deletions, Omissions, 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) amendment, (3) bulletin, (4) notice of deletion, (5) notice of omission, or (6) 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 subsequently to the (1) addendum, (2) amendment, (3) bulletin, (4) notice of deletion, (5) notice of omission, or (6) change order by which it was created.
- D-65. Concrete Specifications.** "Standard Minimum Concrete Specifications," October 1963, revised May 1976, revisions approved jointly by the Georgia Branch, The Associated General Contractors of America, and Georgia Concrete and Products Association, Inc., successors to Georgia Ready-Mix Concrete Association are adopted as a minimum requirement.
- D-66. Omitted.**

- D-67. Certificates of Manufacturers for Major Components.** Not used.
- D-68. Forms and Specimens.** - The forms and specimens attached as exhibits are incorporated by reference herein and shall be executed in substantial conformance as required or convenient in describing obligations under the contract documents.
- D-69. Copies of Notices to Owner.** Wherever the general conditions provide that a copy of any notice, request, or demand filed with the Architect by the Contractor shall be furnished to the Owner, such notice, request or demand shall not become effective until the Owner's copy shall have been received by the Owner. No notice in writing or orally to the Architect or to the resident engineer inspector 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 Article E-01 of the Supplementary General Conditions. [See also D-01(d), D-15, D-18, and D-39]
- D-70. Utilities.** Except for the cost of connection, the Owner shall furnish without cost to the Contractor all water and electricity as presently available at the site required to do the work. The Contractor shall make connection to utilities at locations agreeable to the Owner. The Contractor shall pay all costs for connections and extending these to the area where it proposes to use them. (See also D-09)
- D-71. Form of Agreement.** The form of agreement shall be executed on the form of agreement supplied by the Owner. Specimen of which is shown in Exhibit E. [See also Article D-1]
- D-72. Contractor Performance Evaluation Questionnaire.** (See Exhibit G)
- a. The Contractor Performance Evaluation Questionnaire is a method the State of Georgia intends to use to encourage contractors to perform their contractual responsibilities to complete contracts in a timely manner and at the quality level specified in the Contract Documents.
 - b. The Contractor's retainage on the current contract could be affected by the performance rating the contractor is issued. A performance evaluation of unsatisfactory may result in the contractor's retainage remaining at 10% or being reinstated to 10% from the lump sum. Upon correction of the deficiencies which led to the unsatisfactory rating, the Contractor's retention may be reduced to a lump sum or reinstated back to a lump sum.
 - c. Performance evaluations will be issued, depending upon project duration, when 50% completion has been attained, at the time of final acceptance of the project or at any time that the Owner determines that the Contractor's performance is deemed to be unsatisfactory.
 - d. Performance evaluation ratings of outstanding, satisfactory and unsatisfactory can be issued.
 - e. The issuance or failure to issue a performance evaluation questionnaire does not affect the State's right to seek redress from the Contractor for work not in compliance with the Contract Documents or for latent defects.

SECTION E
SUPPLEMENTARY GENERAL CONDITIONS

E-01. Section D, General Conditions are amended / clarified as follows:

a. *Article D-1. Definitions.*

1. Sub-paragraph (s), Owner, is defined as follows:

- a) The Owner as referred to herein is "Department of Natural Resources" an Agency of the State of Georgia.
- b) The address of the Owner to which all correspondence regarding this Project should be addressed is:

Department of Natural Resources
2 Martin Luther King, Jr. Drive, Suite 1352 East
Atlanta, Georgia 30334

- c) The address of the Owner to which all deliveries regarding this Project should be addressed is:

Red Top Mountain State Park
50 Lodge Road
Cartersville, Georgia 30121
(770) 975-4226

2. Sub-paragraph (t), Architect is defined as follows:

Whenever the terms architect, engineer, or owner's authorized representative appear in the plans or specifications, it shall mean:

James T. Evans
Department of Natural Resources
P. O. Box 1029
Helen, Georgia 30545
(706) 878-4750

E-02. Sales Tax. Unless otherwise provided in the Contract Documents, the Contractor shall pay all sales, consumer, use and other similar taxes, which are legally enacted at the time bids are received.

E-03. Hazardous Material. A Hazardous Material is any substance or material identified as of the date of the Agreement as hazardous under any governmental law, rule, or regulation, or otherwise subject to governmental requirements concerning handling, disposal, and/or cleanup. Unless provided by Change Order, the Contractor shall not be required to perform any work related to hazardous materials encountered at the Site. The Contractor is fully responsible for any Hazardous Materials brought on the Site by any party, other than the Owner, who has a contractual relationship with the Contractor to perform Work under the Contract Documents. If the Contractor knows of the presence of hazardous materials in any form existing on or delivered to the Site, the Contractor shall immediately notify the Architect and the Owner as to the quantity and nature of the hazardous material.

E-04. Article D-5, Shop Drawings, is amended to add the following:

- 1. For all submissions, a minimum of four prints of each drawing shall be submitted. Two prints of each drawings of the various submissions will be retained by the architect.
- 2. One print of each drawing bearing the architect's final approval stamp shall be kept at the project office and shall be maintained in good condition. Only prints bearing the architect's final approval stamp will be recognized.

3. In checking shop drawings, the architect shall not be required to check dimensions and/or quantities, these being the responsibility of the contractor.

E-05. Article D-28, Affidavits, is amended to add the following:

Before final acceptance of the work, the contractor will be required to furnish the owner one original of both a completed Consent of Surety to Final Payment and a one-year warranty and guaranty, copies of which are included herein as Exhibits H and J.

E-06. Article D-46 Commencement, Prosecution, and Completion, is amended to add the following:

1. Substantial Completion. For the purposes of this contract, the term substantial completion shall be defined as acceptance by the Architect on the Owner's behalf for the Owner to occupy said facility in the normal uninterrupted use for which the facility was designed and constructed and without interference from the Contractor.
2. Liquidating Damages. For each calendar day in excess of the established completion date that the work remains incomplete, the Contractor shall pay to the Owner the sum of \$100.00 as liquidating damages, which are reasonably estimated in advance to cover losses to be incurred by the Owner by reason of failure of the Contractor to complete the work on time, time being of the essence of the contract and a material consideration thereof; provided, however, no such liquidating damages shall be payable if, in the sole discretion of the owner, no losses have occurred.

E-07. Article D-55 Operation and Maintenance Data and Information, is substituted by the following:

Contractor shall, at completion of the work, deliver to the Architect two (2) copies of a manual, assembled and bound, with full details for care and maintenance of all equipment included in the contract.

Where the above-described manuals and data are called for under separate sections of the specifications, they are to be included in the bound manual described in this Article.

E-08. Article D-57 Cash Allowances, is amended to add the following:

Any overhead and profit associated with a cash allowance must be included elsewhere in the base bid. The entire amount of the allowance must be available for the use for which it is intended. If actual costs are over or under this amount, it will be adjusted by change order.

E-09. Overhead and Profit on Sub-Contract Work.

The general contractor's overhead and profit on all sub-contract work that forms part of any change order must not exceed 7.5% of the sub-contractor's total cost. The Owner may negotiate a lower overhead and profit based on the particular circumstances of the change order.

E-10. Contractor Licensing.

All General Contractors, Residential-Light Commercial Contractors or Sub-Contractors performing general construction, plumbing, electrical, conditioned air or low voltage work as defined in OCGA 43-14 and 43-41 must possess a valid license from the State of Georgia for the type of work they are performing.

E-11. Article D-58 Testing Services, is amended to add the following:

All testing except re-tests as included in Article D-58 shall be paid for by the Owner. Where testing services are included under a cash allowance, the fees shall be paid directly by the Contractor, after approval by the Architect. The Contractor shall give notice to the Architect when he is ready for testing to be done.

- E-12. Pre-bid Meeting.** A mandatory pre-bid meeting will be held at the time and place listed in Section A - Invitation to Bid. **All bidders are required to attend the mandatory pre-bid meeting.** A time for access to the project site will be scheduled at the mandatory pre-bid meeting and a general discussion of the project will take place. The GSFIC reserves the right to disqualify bidders arriving late to the pre-bid conference.

E-13. Immigration Reform Compliance. Pursuant to the Georgia Security and Immigration Compliance Act of 2006, the Contractor understands and agrees that compliance with the requirements of O.C.G.A. § 13-10-91 and Georgia Department of Labor Rule 300-10-1-.02 are conditions of this Agreement. The Contractor hereby warrants that Contractor has complied with the Immigration Reform and Control Act of 1986 (IRCA), D.L. 99-603 and the Georgia Security and Immigration Compliance Act, O.C.G.A. § 13-10-90 *et. seq.*, by registering at <https://www.vis-dhs.com/EmployerRegistration> and verifying information of all new employees; and by executing any affidavits required by the rules and regulations issued by the Georgia Department of Labor set forth at Rule 300-10-1-.01 *et. seq.*

The Contractor warrants that, in the event the Contractor employs or contracts with any subcontractor(s) in connection with this Agreement, the Contractor shall include a similar provision in all written agreements with any such subcontractor(s). The Contractor agrees to maintain records of any such written subcontractor agreements for inspection by the Owner at any time.

**SECTION F
SPECIAL CONDITIONS**

There are no special conditions.

SECTION G
EXHIBIT A
SPECIMEN

NON-INFLUENCE AFFIDAVIT

COUNTY OF _____

STATE OF _____

I do solemnly swear on my oath that as to the contract dated _____, 20_____,
between _____ and
(NAME OF CONTRACTOR)

the Owner I have no knowledge of the exertion of any influence or the attempted exertion of any influence on 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 any employee, officer, or agent of the Owner, or any person connected with the State Government of Georgia in any way whatsoever.

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 _____ who, after being duly
(NAME OF CONTRACTOR)

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_____.

EXHIBIT B
SPECIMEN
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 material men, subcontractors, mechanics, and laborers have been paid and satisfied in full, 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-ENTER THE WORD "NONE" OR LIST THE NAMES OF CLAIMANTS
AND THE AMOUNT CLAIMED BY EACH]**

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 _____, who
(NAME OF PERSON SIGNING AFFIDAVIT)

is known to me to be an official of the firm of _____ who, after being duly
(NAME OF CONTRACTOR)
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__

EXHIBIT C
SPECIMEN
PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That _____ as
(Legal Name and Address of Contractor)

principal (hereinafter referred to as "Contractor") and

_____ as
(Legal title and address of Surety)
surety (hereinafter referred to as "Surety"), are held and firmly bound unto {Insert Name of Owner}
as Obligee (hereinafter referred to as "Owner"), in the amount of \$ _____, 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 Owner bearing date of
_____, for PROJECT NO. _____ in accordance with drawings and
specifications prepared by _____, which 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 save harmless the Owner against and from all costs, 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 shall in any wise 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.

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 remedy the default or defaults or shall promptly perform the Contract 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 either to 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 of 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 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, materialman, or laborer for labor or materials certified by the Contractor as having been paid for by the Contractor, the Surety shall, within 30 days of receipt of such notice, cause to be paid any unpaid amount for such labor or materials.

4. It is expressly agreed by the Principal and the Surety that the Owner, if he desires to do so, is at liberty to make inquiries at any time of subcontractors, laborers, materialmen, or other parties concerning the status of payments for labor, materials, or services furnished in the prosecution of the work.

5. The Surety agrees that other than as is provided in this bond it may not demand of the Owner that the Owner shall (a) perform any thing or act, (b) give any notice, (c) furnish any clerical assistance, (d) render any service, (e) furnish any papers or documents, or (f) take any other action of any nature or description which is not required of the Owner to be done under the contract documents.

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

Signed and sealed this _____ day of _____ A. D. 20_____.

IN THE PRESENCE OF:

_____(SEAL)
(Principal)

(Title)

_____(SEAL)
(Surety)

(Title)

EXHIBIT D
SPECIMEN
PAYMENT BOND

THIS BOND IS EXECUTED TOGETHER WITH ANOTHER BOND IN FAVOR OF THE
OWNER AS OBLIGEE CONDITIONED UPON PERFORMANCE OF THE CONTRACT

KNOW ALL MEN BY THESE PRESENTS:

That _____ as
(Legal Title and Address of Contractor)

Principal (hereinafter referred to as "Contractor"), and

_____ as Surety
(Legal title and address of Surety)

(hereinafter referred to as "Surety"), are held and firmly bound unto {Insert Name of Owner} as obligee

(hereinafter referred to as "Owner"), for the use and benefit of claimants defined, hereinafter, in the amount of

(\$ _____), to which payment Principal and Surety bind themselves, their heirs, executors,
(Insert Contract Price)

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

Project No. _____ in accordance with drawings and specifications prepared by

_____ which 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 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, alterations or addition or additions to the terms of the contract or to the work to be performed there under, or the specifications or drawings accompanying same shall in any wise 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.
2. A claimant is defined as any subcontractor and 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 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 such claim is made, or when he has completed his subcontract 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 the right of action upon the said payment bond upon

giving written notice to said contractor within ninety 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 supplied or for whom the labor was performed or done; provided further that nothing contained herein shall limit the right of action to said 90-day period. Notice may be served by depositing a notice, registered mail, postage prepaid, duly addressed to the contractor at any place he maintains an office or conducts his business, or his residence, in any post office or branch post office or any letter box under the control of the Post Office Department, or notice may be served in any manner in which the sheriffs of Georgia are authorized by law to serve summons or process. Every suit instituted under this section shall be brought in the name of the claimant without the Owner being made a party thereto. The official who has the custody of said bond is authorized and directed to furnish, to any person making application therefore who submits an affidavit that he has supplied labor or materials for such work and payment therefore has not been made, or that he is being sued on any such bond, a copy of such bond and the contract for which it was given, certified by the official who has custody of said bond; this copy shall be primary evidence of said bond and contract and shall be admitted in evidence without further proof. Applicants shall pay for such certified copies and such certified statements such fees as the official fixes to cover the cost of preparation thereof, but in no case shall the fee exceed the fees which the clerks of the superior courts are permitted to charge for similar copies.

4. No action can be instituted on this bond after one year from the date of the final certificate of the architect.
5. Further, this bond shall be considered the same as a bond furnished under Section 13-10-1 *et seq.*, of the Code of Georgia, as amended, and all provisions of law pertaining to bonds furnished under said Section shall pertain hereto.

Signed and sealed this _____ day of _____ A.D. 20_____.

IN THE PRESENCE OF:

_____(SEAL)

(Principal)

(Title)

_____(SEAL)

(Surety)

(Title)

EXHIBIT E
SPECIMEN
CONSTRUCTION CONTRACT

Contract No: _____

THIS AGREEMENT is made the _____ day of _____, 20____, by and between the Department of Natural Resources, an agency of the State of Georgia, (hereinafter, called the "Owner"), whose address is 2 Martin Luther King, Jr. Drive, Suite 1352 East, Atlanta, Georgia 30334 and (Contractor name), a corporation duly authorized by law to transact business in the State of Georgia (hereinafter, called the "Contractor"), whose mailing address is (Contractor address).

WITNESSETH:

WHEREAS, Owner has had prepared drawings, plans, specifications and addenda describing certain construction work it requires, the originals of which are on file and of record in the owner's offices, and are, by this reference, specifically incorporated herein; and

WHEREAS, Contractor, having obtained an exact copy of said drawings, plans, specifications and addenda, has submitted the bid for such work that is the most beneficial to the State of Georgia.

NOW, THEREFORE, the Owner and the Contractor in consideration of the mutual promises and benefits flowing to the parties hereto as hereinafter stated, agree as follows:

1. **SCOPE OF WORK** - The Contractor shall furnish all labor, materials, tools and equipment to perform all the Work shown on the drawings and called for in the specifications entitled: (name of project), as prepared by: _____, who is referred to in the Contract Documents as the Architect. It is the intent and it is hereby agreed that the Contractor shall perform all work covered by this Contract and the Contract Documents.
2. **TIME OF COMPLETION** - This Contract shall be commenced within ten (10) days after notice to proceed is issued by the Owner and shall be fully completed in _____ days from and including the date of the Notice to Proceed, time being of the essence.
3. **CONTRACT SUM** - The Owner shall pay the Contractor the sum of (Bid Amount in numbers and in writing) , which represents the base bid price plus/less alternates _____ and is subject to adjustment by additive or deductive Change Orders.
4. **PROGRESS PAYMENTS** -
 - (a) The Owner shall make progress payments on account of the contract as follows: On or about the 15th day of each month 90 per cent of the value, based on the contract prices, of labor and materials incorporated in the work and of materials suitably stored at the site thereof up to the 1st day of that month, as estimated by the Architect, less the aggregate of previous payments, until one-half of the contract sum is due.
 - (b) At any time after one-half of the contract sum, including change orders, becomes due and the work is: (1) on or ahead of the construction progress schedule; (2) there are no breaches of orders of condemnation; (3) there is no delinquency in the filing of the final breakdown and accounting, together with vouchers, on force account work as referred to in Article D-15 of the general conditions; and (4) there are no unsatisfactory performance evaluations, if the Contractor requests and the Owner and Architect approve, the sum being withheld as retainage will be converted to a lump sum and held by the Owner until final completion.

EXHIBIT E

PAGE 2

(c) No further retainage will be withheld by the Owner from payments to the Contractor unless: (1) the percentage of work complete falls behind the percentage required by the construction progress schedule by as much as 15 per cent, or; (2) the Contractor breaches an order of condemnation, or; (3) there are no unsatisfactory performance evaluations, or; (4) the Contractor becomes delinquent in

regard to the filing of the final breakdown and accounting, together with vouchers, on force account work as referred to in Article D-15 of the general conditions, in which event or events the Owner shall reinstate the 10 per cent retainage on all periodical estimates 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.

(d) If the Contractor (1) recovers all lost time and puts the work back on schedule; and (2) remedies all breaches of orders of condemnation; and (3) corrects the deficiencies which caused the unsatisfactory performance evaluations, and (4) supplies a proper breakdown and accounting on force account work the sums withheld while either or all of the events existed will be converted to an additional lump sum and held by the Owner until final completion, and no further retainage will be withheld unless: (1) recurs, or; (2) recurs, or; (3) recurs or; (4) recurs in which event or events the Owner shall reinstate the 10 per cent retainage on all subsequent periodical estimates.

(e) At the discretion of the Owner, the retainage of each subcontractor may be released separately as he completes his work. An application for release of a subcontractor's retainage shall bear the original certificate of the subcontractor, the Contractor, and the Architect 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. All warranties shall run from the date of the final certificate of the Architect unless otherwise expressly provided in the contract. Payments pursuant to this article shall in no way diminish, change, alter or affect the rights of the Owner under the contract documents.

5. **FINAL PAYMENT -**

(a) Final payment under this Contract will be due to the Contractor thirty (30) days after the issuance of the final certificate by the Architect. The Contractor agrees that before applying for final payment, he will furnish to the Owner the Statutory Affidavit, and the warranties and guarantees called for in the specifications.

(b) Upon receipt of written notice from the Contractor pursuant to Article D-41 of the general conditions that the work is ready for final inspection, the Architect shall promptly make such inspection, and when he finds the work complies with the contract and when the contract shall have been fully performed he shall promptly issue a final certificate, over his own signature, stating that the work provided for in this contract has been completed under the terms and conditions thereof, and that the entire balance found to be due the Contractor, and noted in said final certificate, is due and payable.

(c) Before issuance of final certificate, the Contractor shall submit evidence satisfactory to the Architect that all payrolls, material bills, and other indebtedness connected with the work have been paid.

(d) If full completion of the work is materially delayed through no fault of the Contractor, and the Architect so certifies, the Owner shall, upon certificate of the Architect, and without terminating the contract, make payment of the balance due for that portion of the work fully completed. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

EXHIBIT E
PAGE 3

6. **THE CONTRACT DOCUMENTS** - The Contract Documents which form the basis of this Contract shall be the plans and specifications as enumerated below, together with any other documents so listed and enumerated, and it is expressly understood that these documents are specifically made a part of this Contract.

PROJECT MANUAL: Entitled:

Dated:

Addendum (a):

CONTRACT: This form of AGREEMENT dated _____ by and between the parties written above.

7. The Owner and the Contractor hereby agree to the full performance of the conditions and stipulations contained herein.
8. This Agreement and all rights, privileges and responsibilities shall be interpreted and construed according to the laws of the State of Georgia. Any lawsuit or other action based on claims arising from this Contract shall be brought in a court or the forum of competent jurisdiction in Fulton County, in the State of Georgia.
9. The Contractor covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance required under this Agreement. The Contractor further covenants that in the performance of this Agreement, no person having any such interest shall be employed or contracted with.
10. The parties hereto certify that the provisions of law contained in the Act prohibiting full-time appointive officials and employees of the State from engaging in certain transactions affecting the State as defined in Section 45-10-20 through 45-10-26 of the O.C.G.A. have not and will not be violated in any respect in regard to this Agreement.
11. This Agreement and the proceeds of this Agreement may not be assigned nor may the performance there under be assigned, except with the prior written consent of the Owner.
12. 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 recession of the Contract itself
13. If the Contractor is a nonprofit Contractor as defined in Section 50-20-2 of the O.C.G.A., then the Contractor agrees to comply with the provision of said Act, and in particular requirements of Section 3 thereof, and with such further instructions and requirements as the State of Georgia may subsequently require in the implementation of said Act.
14. **IMMIGRATION REFORM COMPLIANCE.** Pursuant to the Georgia Security and Immigration Compliance Act of 2006, the Contractor understands and agrees that compliance with the requirements of O.C.G.A. § 13-10-91 and Georgia Department of Labor Rule 300-10-1-.02 are conditions of this Agreement. The Contractor hereby warrants that Contractor has complied with the Immigration Reform and Control Act of 1986 (IRCA), D.L. 99-603 and the Georgia Security and Immigration Compliance Act, O.C.G.A. § 13-10-90 *et. seq.*, by registering at <https://www.vis-dhs.com/EmployerRegistration> and verifying information of all new employees; and by executing

any affidavits required by the rules and regulations issued by the Georgia Department of Labor set forth at Rule 300-10-1-.01 *et. seq.*

The Contractor warrants that, in the event the Contractor employs or contracts with any subcontractor(s) in connection with this Agreement, the Contractor shall include a similar provision in all written agreements with any such subcontractor(s). The Contractor agrees to maintain records of any such written subcontractor agreements for inspection by the Owner at any time.

15. No amendment to this Contract shall be effective unless it is in writing and signed by duly authorized representatives of the parties. **NO REPRESENTATION, REQUEST, INSTRUCTION, DIRECTIVE OR ORDER, MADE OR GIVEN BY ANY OFFICIAL OF ANY AGENCY OF THE STATE OF GEORGIA, WHETHER VERBAL OR WRITTEN SHALL BE EFFECTIVE TO AMEND THIS CONTRACT OR EXCUSE OR MODIFY PERFORMANCE HEREUNDER UNLESS REDUCED TO A FORMAL AMENDMENT AND EXECUTED AS SET FORTH ABOVE. CONTRACTOR SHALL NOT BE ENTITLED TO ADDITIONAL COMPENSATION, DELAY IN PERFORMANCE, OR OTHER BENEFIT CLAIMED FOR RELYING UPON OR RESPONDING TO ANY SUCH REPRESENTATION, REQUEST, INSTRUCTION, DIRECTIVE, OR ORDER.**

16. This Contract, including all documents incorporated herein, constitutes the entire agreement between the parties with respect to the subject matter; hereby superseding all other prior and contemporaneous agreements, representations, statements, negotiations, and undertakings whether oral or written.

EXHIBIT E
PAGE 5

THE PERSON SIGNING ON BEHALF OF EACH PARTY REPRESENTS THAT SUCH PERSON IS DULY AUTHORIZED AND FULLY EMPOWERED TO ENTER INTO THIS CONTRACT ON BEHALF OF SUCH PARTY. EACH PARTY WARRANTS THAT SUCH PARTY HAS FULL POWER AND AUTHORITY TO ENTER INTO AND PERFORM THIS CONTRACT. THE PARTIES HERETO ACKNOWLEDGE THAT THEY HAVE READ AND UNDERSTAND THIS CONTRACT, AND AGREE TO BE BOUND BY ALL TERMS AND CONDITIONS OF THIS CONTRACT, AS INDICATED BY THE SIGNATURES OF THEIR DULY AUTHORIZED REPRESENTATIVES SET OUT BELOW.

EXECUTED AS OF THE DAY AND YEAR FIRST WRITTEN ABOVE

**DEPARTMENT OF NATURAL RESOURCES
AN AGENCY OF THE STATE OF GEORGIA**

(Contractor name)

Chris Clark

Printed Name: _____

Commissioner

Title: _____

By: _____
(Signature)

By: _____
(Signature)

Date: _____

Date: _____

ENCLOSURES:

- Exhibit A: Bid of Contractor (Proposal Form)
- Exhibit B: Section D – General Conditions
- Exhibit C: Section E – Supplemental Conditions
- Exhibit D: Section F – Special Conditions
- Exhibit E: Drawings and Specifications

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 PROVISIO 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	Certificate Holder(Owner): Department of Natural Resources Parks & Historic Sites Division 2 Martin Luther King, Jr. Drive, Suite 1352 Atlanta, Ga. 30334

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 includes contractual liability				General Aggregate (per project) \$2,000,000.00 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 (per person) \$1,000,000.00 Property Damage \$1,000,000.00
Workers Compensation The Proprietor/Partners/ Executive Officers are included				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 \$2,000,000.00
Builders Risk written on 1991 Cause of Loss-Special Form or its equivalent(See endorsement below) OR Installation Floater (for other than new construction)				

Such insurance as is herein certified (i) applies to all in connection with the work required by the provisions of the documents forming the contract, (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.

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, including without limitation 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: _____

EXHIBIT G

CONTRACTOR PERFORMANCE EVALUATION QUESTIONNAIRE

FINAL REPORT INTERIM REPORT, _____% COMPLETE

Facility (Owner): Georgia Department of Natural Resources Project Number: _____

Project: _____

Description: _____

Contractor: _____
Legal Name and Address

When Organized _____ State Incorporated _____ Type _____
Corporation, Partnership,

Sole Proprietorship
Federal I.D. No. _____ or S. S. No. _____ Georgia Resident: YES ___ NO ___

The full names of persons interested in the foregoing project as principals are as follows:

(1) _____
Check One: President () Partner () Owner ()

(2) _____
Check One: Vice President () Secretary () Partner ()

Original Contract Amount: \$ _____ Date of Award: _____

of CO's _____ Total CO's \$ _____ Original Contract Completion Date: _____

Final Contract Amount \$ _____ Revised Contract Completion Date: _____

Owner Acceptance Date: _____
Punch List Completion Date: _____

Final Payment Date: _____

Contractor's Overall Performance Rating:

4 = Outstanding 2 = Satisfactory 0 = Unsatisfactory

Remarks: (Attach additional sheets or documentation if necessary)

EVALUATED BY: _____

REVIEWED BY: _____

Name and Title

Name and Title

Signature

Signature

Date

Date

EXHIBIT G
PAGE 2

PERFORMANCE EVALUATION OF CONTRACTOR			
	PERFORMANCE CATEGORY	RAT	REMARKS
1	Project Mobilization		
2	Environmental Protection		
3	Compliance / Submission of Labor Reports		
4	Job Site Safety		
5	Knowledge and Compliance with Applicable Codes		
6	Contract Management		
7	Adherence to Project Schedule		
8	Quality of Superintendence/Supervision		
9	Coordination of Trades/Subcontractors		
10	Submittal Reviews by Contractor		
11	Submittal Timeliness		
12	Subcontractor Management/Scheduling		
13	Mechanical Systems		
14	Electrical Systems		
15	Adherence to Plans/Specifications		
16	Maintenance/Operation Manuals		
17	O&M Equipment Demonstrations		
18	Cooperation with Inspectors		
19	As Built Drawings		
20	Cooperation with Owner/User		
21	Change Orders		
22	Job Site Appearance/Clean-up		
23	Project Status at Punch List Inspection		
24	Completion of Punch List		
25	Punch List Size		
26	Timeliness of Project Completion		
27	Quality of Construction		
28	Submission of Close Out Data		
CODE RATING: 4 = Outstanding 2 = Satisfactory 0 = Unsatisfactory (Explain all outstanding or unsatisfactory ratings)			

PERFORMANCE EVALUATION OF CONTRACTOR'S SUB-CONTRACTOR S			
SUB-CONTRACTOR (NAME AND WORK PERFORMED)		RATING	REMARKS
A.			
B.			
C.			
D.			
E.			

CODE RATING: 4 = Outstanding 2 = Satisfactory 0 = Unsatisfactory (Explain all outstanding or unsatisfactory ratings)

1. This evaluation of the contractor's performance should be completed upon completion of the project. At the Agency's discretion, a report of the contractor's performance can be done at any time during the project.
2. Copies of all performance evaluations (pages 1, 2 & 3) are to be sent to the Department of Administrative Services, State purchasing, to the attention of the Construction Project Analyst.
3. Interim and Final Unsatisfactory Evaluation Reports will be used to determine whether contractors are responsible bidders on future bids and in possible suspension or debarment proceedings.

CONSENT OF SURETY COMPANY TO FINAL PAYMENT

AIA DOCUMENT G707

OWNER
 ARCHITECT
 CONTRACTOR
 SURETY
 OTHER

PROJECT:
(name, address)

TO (Owner)

ARCHITECT'S PROJECT NO:
CONTRACT FOR:

CONTRACT DATE:

CONTRACTOR:

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
(here insert name and address of Surety Company)

, SURETY COMPANY,

on bond of (here insert name and address of Contractor)

, CONTRACTOR,

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not
relieve the Surety Company of any of its obligations to (here insert name and address of Owner)

, OWNER

as set forth in the said Surety Company's bond.

IN WITNESS WHEREOF,
the Surety Company has hereunto set its hand this

day of

19

Surety Company

Signature of Authorized Representative

Attest:
(Seal):

Title

NOTE: This form is to be used as a companion document to AIA DOCUMENT G706, CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS, Current Edition

WARRANTY AND GUARANTY

RE:

TO: DEPARTMENT OF NATURAL RESOURCES
AN AGENCY OF THE STATE OF GEORGIA

Witnesseth that _____
guarantees that all work executed under the plans and these
Specifications will be free from defects of materials and
workmanship for a period of one year from the date of final
acceptance and that all defects occurring within that period
shall be replaced at no cost to the Owner.

Where guaranty or guaranties are written in any section for
a period of more than one year, such longer terms shall apply.

Nothing in the above shall be deemed to imply that this guaranty
shall apply to work which has been abused or neglected by the
Owner.

It is specifically understood that the terms of the guaranties
called for in the Specifications, the compliance therewith,
and the fulfillment of all obligations thereunder are fully
protected by the performance bond furnished by the General
Contractor.

DATE OF FINAL ACCEPTANCE:

Title

SECTION 013300 - ARCHITECTURAL SUBMITTALS

PART 1 GENERAL

-1.01 SECTION INCLUDES

- A. Architectural submittals include shop drawings, diagrams, illustrations, schedules, performance charts, nomenclature charts, samples, brochures and other data prepared by the Contractor or any subcontractor, manufacturer, supplier, fabricator, or distributor and which illustrate some portion of the Project.
- B. Submittals by the Contractor are not a part of the Contract Documents.

1.02 RELATED SECTIONS

- A. Section 013330 – Structural Submittals

1.03 SUBMITTAL PROCEDURES

- A. Prior to the initial submittal, Contractor shall submit to the Design Professional a Schedule of Submittals
- B. Submittals shall be accompanied by a transmittal letter with the following information:
 - 1. Project name.
 - 2. Contractor's name.
 - 3. Date submitted.
 - 4. Description of items submitted; identify work and product by Specification Section.
 - 5. Number of drawings and other pertinent data.
- C. Provide blank space on each submittal for the Design Professional's review stamp.
- D. Provide 1 digital and 1 physical copy of each submittal.
- E. Contractor shall direct specific attention on the submittal to any deviation from the Contract Documents.

1.04 CONTRACTOR RESPONSIBILITY

- A. Contractor shall make all submittals in advance of installation or construction to allow the Design Professional sufficient time for review.
- B. Contractor shall stamp and sign each sheet of shop drawings and product data, and sign or initial each sample to certify compliance with requirements of Contract Documents. **SUBMITTALS RECEIVED WITHOUT THE CONTRACTOR'S STAMP OF REVIEW WILL BE RETURNED TO THE CONTRACTOR FOR REVIEW AND RESUBMITTAL.**
- C. Contractor shall understand that the submittal of the required documents does not constitute compliance with the requirements of the Contract Documents; only submittals reviewed by the Design Professional constitute compliance.
- D. It is the Contractor's responsibility to furnish equipment, materials, and labor for the Project which meets the requirements of the codes and authorities quoted as well as the Contract Documents. Proprietary items specified herein only establish a minimum functional and aesthetic standard and it is incumbent upon the Contractor to ascertain conformance of these proprietary items or any proposed substitution with the codes and authorities.

- E. By reviewing, approving and submitting shop drawings, product data, or samples, Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, member sizes catalog numbers, and similar data and that he has checked and coordinated shop drawings with the requirements of the Project and of the Contract Documents.
- F. Work requiring shop drawings, whether called for by the Contract Documents or requested by the Contractor, shall not commence until the submission has been reviewed by the Design Professional. Work may commence if the Contractor verifies the accuracy of the Design Professional corrections and notations and complies with them without exception and without requesting change in Contract Sum or Contract Time.

1.05 DESIGN PROFESSIONAL REVIEW

- A. Design Professional will review submittals with reasonable promptness.
- B. Design Professional's review or corrections refer only to the general arrangement and conformance of the subject of the submittals with the design concept of the project and with the information given in the Contract Documents. Under no conditions should the Contractor consider the review to include the dimensions, quantities, and details of the items nor the approval of an assembly in which the item functions.
- C. Design Professional's review shall not relieve the Contractor from responsibility for errors or omissions in the submittals.
- D. Design Professional's review of submittals shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has directed specific attention to the deviation at the time of submission and the Design Professional has given written approval to the specific deviation.
- E. Design Professional's review of submittals shall not be construed as authorizing any change in the Contract Sum or Contract Time.

1.06 SHOP DRAWINGS

- A. Present in a clear and thorough manner. Title each drawing with Project name and number; identify each element of drawings by reference to sheet number and detail of Contract Documents.
- B. Reproduction of Architectural Drawings for shop drawings is not permitted. Electronic drawing files will not be provided to the Contractor.
- C. Identify field dimensions; show relationship to adjacent or critical features of Work or products.
- D. A copy of the marked structural shop drawings with the Design Professional's review stamp is to be maintained at the job site.

1.07 PRODUCT DATA

- A. Submit only pages which are pertinent; mark each copy of standard printed data to identify pertinent products, referenced to Specification Section and Article number. Show reference standards, performance characteristics, and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances.
- B. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the work. Delete information which is not applicable.
- C. Provide manufacturer's preparation, assembly, and installation instructions.

1.08 SAMPLES

- A. Submit full range of manufacturer's standard finishes except where more restrictive requirements are specified, indicating colors, textures, and patterns.
- B. Submit samples to illustrate functional characteristics of products, including parts and attachments as required by Design Professional.
- C. Approved samples which are of proper size may be incorporated in Work.
- D. Label each sample with identification.
- E. Field Finishes: Provide full samples at Project, at location acceptable to Design Professional, as required by individual Specification Section. Install each sample complete and finished. Acceptable finishes in place may be retained in completed work.

1.09 RESUBMITTALS

- A. When submittals are returned to the Contractor with the Design Professional's corrections the Contractor shall make the required corrections. Upon request, resubmit one corrected set.
- B. Contractor shall direct specific attention on the resubmittal to all revisions including those requested by the Design Professional on previous submission.

1.10 DISTRIBUTION

- A. Distribute reproductions of shop drawings, copies of product data, and samples which bear the Design Professional's review stamp to job site file, Record Documents file, subcontractors, suppliers, other affected contractors, and other entities requiring information.
- B. Work shall be in accordance with and performed from the reviewed drawings.

END OF SECTION

SECTION 013330 - STRUCTURAL SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Structural submittals include shop drawings, design calculations, diagrams, illustrations, schedules, performance charts, nomenclature charts, samples, brochures and other data prepared by the Contractor or any subcontractor, manufacturer, supplier, fabricator, or distributor and which illustrate some portion of the Project.
- B. Submittals by the Contractor are not a part of the Contract Documents.

1.02 RELATED SECTIONS

- A. Section 013300 - Submittals

1.03 SUBMITTAL PROCEDURES

- A. Prior to the initial submittal, Contractor shall submit to the Design Professional a completed *Submittal Information and Schedules* form given in Appendix I.
- B. Submittals shall be accompanied by a transmittal letter with the following information:
 - 1. Project name.
 - 2. Contractor's name.
 - 3. Date submitted.
 - 4. Description of items submitted; identify work and product by Specification Section.
 - 5. Number of drawings and other pertinent data.
- C. Provide blank space on each submittal for the Design Professional's review stamp.
- D. The type and number of submittals for each item shall be in accordance with
- E. Contractor shall direct specific attention on the submittal to any deviation from the Contract Documents.

1.04 CONTRACTOR RESPONSIBILITY

- A. Contractor shall make all submittals in advance of installation or construction to allow the Design Professional sufficient time for review.
- B. Contractor shall stamp and sign each sheet of shop drawings and product data, and sign or initial each sample to certify compliance with requirements of Contract Documents. **SUBMITTALS RECEIVED WITHOUT THE CONTRACTOR'S STAMP OF REVIEW WILL BE RETURNED TO THE CONTRACTOR FOR REVIEW AND RESUBMITTAL.**
- C. Contractor shall understand that the submittal of the required documents does not constitute compliance with the requirements of the Contract Documents; only submittals reviewed by the Design Professional constitute compliance.

- D. It is the Contractor's responsibility to furnish equipment, materials, and labor for the Project which meets the requirements of the codes and authorities quoted as well as the Contract Documents. Proprietary items specified herein only establish a minimum functional and aesthetic standard and it is incumbent upon the Contractor to ascertain conformance of these proprietary items or any proposed substitution with the codes and authorities.
- E. By reviewing, approving and submitting shop drawings, product data, or samples, Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, member sizes catalog numbers, and similar data and that he has checked and coordinated shop drawings with the requirements of the Project and of the Contract Documents.
- F. Work requiring shop drawings, whether called for by the Contract Documents or requested by the Contractor, shall not commence until the submission has been reviewed by the Design Professional. Work may commence if the Contractor verifies the accuracy of the Design Professional corrections and notations and complies with them without exception and without requesting change in Contract Sum or Contract Time.

1.05 DESIGN PROFESSIONAL REVIEW

- A. Design Professional will review submittals with reasonable promptness.
- B. Design Professional's review or corrections refer only to the general arrangement and conformance of the subject of the submittals with the design concept of the project and with the information given in the Contract Documents. Under no conditions should the Contractor consider the review to include the dimensions, quantities, and details of the items nor the approval of an assembly in which the item functions.
- C. Design Professional's review shall not relieve the Contractor from responsibility for errors or omissions in the submittals.
- D. Design Professional's review of submittals shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has directed specific attention to the deviation at the time of submission and the Design Professional has given written approval to the specific deviation.
- E. Design Professional 's review of submittals shall not be construed as authorizing any change in the Contract Sum or Contract Time.

1.06 SHOP DRAWINGS

- A. Present in a clear and thorough manner. Title each drawing with Project name and number; identify each element of drawings by reference to sheet number and detail of Contract Documents.
- B. Reproduction of Structural Drawings for shop drawings is not permitted. Electronic drawing files will not be provided to the Contractor.
- C. Identify field dimensions; show relationship to adjacent or critical features of Work or products.

- D. A copy of the marked structural shop drawings with the Design Professional's review stamp is to be maintained at the job site.

1.07 PRODUCT DATA

- A. Submit only pages which are pertinent; mark each copy of standard printed data to identify pertinent products, referenced to Specification Section and Article number. Show reference standards, performance characteristics, and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances.
- B. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the work. Delete information which is not applicable.
- C. Provide manufacturer's preparation, assembly, and installation instructions.

1.08 SAMPLES

- A. Submit full range of manufacturer's standard finishes except where more restrictive requirements are specified, indicating colors, textures, and patterns.
- B. Submit samples to illustrate functional characteristics of products, including parts and attachments as required by Design Professional.
- C. Approved samples which are of proper size may be incorporated in Work.
- D. Label each sample with identification.
- E. Field Finishes: Provide full samples at Project, at location acceptable to Design Professional, as required by individual Specification Section. Install each sample complete and finished. Acceptable finishes in place may be retained in completed work.

1.09 RESUBMITTALS

- A. When submittals are returned to the Contractor with the Design Professional's corrections the Contractor shall make the required corrections. Upon request, resubmit one corrected set.
- B. Contractor shall direct specific attention on the resubmittal to all revisions including those requested by the Design Professional on previous submission.

1.10 DISTRIBUTION

- A. Distribute reproductions of shop drawings, copies of product data, and samples which bear the Design Professional's review stamp to job site file, Record Documents file, subcontractors, suppliers, other affected contractors, and other entities requiring information.
- B. Work shall be in accordance with and performed from the reviewed drawings.

END OF SECTION

SECTION 061000 - ROUGH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Section includes wood framing and sheathing to form the superstructure of a wood framed building as indicated on the Drawings.

1.02 RELATED SECTIONS

- A. Section 013330 - Structural Submittals.

1.03 REFERENCES

- A. AFPA (American Forest and Paper Association) - National Design Specification for Wood Construction.
- B. ALSC - American Lumber Standards Committee: Softwood Lumber Standards.
- C. ANSI A208.1 - Mat-Formed Wood Particleboard.
- D. ANSI/AHA A135.4 - Basic Hardboard.
- E. APA: American Plywood Association.
- F. AWWPA (American Wood Preservers Association) C1 - All Timber Products Preservative Treatment by Pressure Process.
- G. AWWPA C20 - Structural Lumber Fire Retardant Treatment by Pressure Process.
- H. RIS: Redwood Inspection Service.
- I. SPIB: Southern Pine Inspection Bureau.
- J. WCLIB: West Coast Lumber Inspection Bureau.
- K. WWPA: Western Wood Products Association.

1.04 DEFINITIONS

- A. Structural Panel is a panel product composed primarily of wood and meeting the requirements of United States Voluntary Product Standard PS 2-92. Performance Standard for Wood-Based Structural-Use Panels". Structural panels include all-veneer plywood, composite panels containing a combination of veneer and wood-based material, and malformed panels such as oriented strand board and waferboard.

1.05 SUBMITTALS

- A. For treated materials, submit certification by treating plant stating chemicals and process used, net amount of preservative retained and conformance with applicable standards.

1.06 QUALITY ASSURANCE

- A. The Structural Testing / Inspection Agency shall provide special inspections as required by Chapter 17 of the building code as required by Specification 01 1400.
- B. Comply with National Design Specification For Wood Construction.

- C. Perform work in accordance with the following agencies:
 - 1. Lumber Grading Agency: Certified by ALSC.
 - 2. Plywood Grading Agency: Certified by APA.
- D. Identify all structural panels by official grade mark.
 - 1. Lumber: Grade stamp to contain symbol of grading agency, mill number or name, grade of lumber, species or species grouping or combination designation, rules under which graded, where applicable and condition of seasoning at time of manufacture.
 - 2. Structural Panel: Panel grade, span rating, exposure durability classification, product standard thickness, and mill number.

1.07 REQUIREMENTS OF REGULATORY AGENCIES

- A. Pressure treated material - American Wood Preservers Bureau Standards.
- B. Span tables - National Forest Products Association.
- C. Working stresses - Softwood Lumber, National Design Specification, National Forest Products Association.

1.08 PROTECTION

- A. Deliver, store, and handle all materials in such a manner to protect against damage and the weather.
- B. Use all means necessary to protect the installed work and materials of all other trades.

1.09 REPLACEMENTS

- A. In the advent of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

PART 2 PRODUCTS

2.01 LUMBER

- A. Nominal sizes are indicated, except as shown by detail dimensions. Provide actual size as required by PS 20, for moisture content specified for each use.
- B. Provide dressed lumber, S4S, unless otherwise indicated.
- C. Provide seasoned lumber No. 2, Southern Pine with 15% maximum moisture content at time of dressing unless noted otherwise on the Drawings.
- D. Lumber Grading Rules and Wood Species to be in conformance with Voluntary Product Standard PS 20: Grading rules of the following associations apply to materials furnished under this section:

1. Northeastern Lumber Manufacturer's Association, Inc. (NELMA).
2. Southern Pine Inspection Bureau (SPIB).
3. West Coast Lumber Inspection Bureau (WCLIB).
4. West Wood Products Association (WWPA).

2.02 STRUCTURAL PANEL

- A. Roof Sheathing: 7/16" APA (Rated Sheathing) Span Rating 40/20.
- B. Wall Sheathing: 7/16" APA (Rated Sheathing).
- C. Floor Sheathing: 3/4" tongue and groove Sturd-I-Floor Span rating 24".
- D. For backing panels for electrical or telephone equipment, provide fire-retardant treated structural panel with exterior glue.

2.03 PARALLEL STRAND LUMBER

- A. NOT USED

2.04 FASTENERS AND ANCHORAGES

- A. Provide size and type as indicated and as recommended by National Forest Products Association "National Design Specification for Stress-Grade Lumber and Its Fastings" complying with applicable Federal Specifications for nails, staples, screws, bolts, nuts, washers and anchoring devices.
- B. Use galvanized fasteners with pressure treated lumber or high humidity conditions, unfinished steel elsewhere.

2.05 PRESERVATIVE TREATMENT

- A. Where lumber or structural panel is indicated as "treated", or is specified herein to be treated, comply with the applicable requirements of the AWPB. Mark each treated item with the AWPB Quality Mark requirements.
- B. Pressure-treat above-ground items with water-borne preservatives complying with AWPB LP-2. Treat indicated items and the following:
 1. Wood cants, nailers, curbs, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers and waterproofing.
 2. Wood sills, sleepers, blocking, furring, stripping and similar concealed members in contact with masonry or concrete.
- C. Complete fabrication of treated items prior to treatment, wherever possible. If cut after treatment, apply one coat of same chemical used for treatment in accordance with manufacturer's instructions.

- D. Allow preservative to dry prior to erecting members. Inspect each piece of lumber or structural panel after drying and discard damaged or defective pieces.

PART 3 EXECUTION

3.01 GENERAL

- A. Set structural members level and plumb, in correct position.
- B. Make provisions for erection loads, and for sufficient temporary bracing to maintain structure safe, plumb, and in true alignment until completion of erection and installation of permanent bracing.
- C. Discard unit of material with defects which might impair quality of work, and units which are too small to fabricate work with minimum joints or optimum joint arrangement.
- D. Installer must examine the substrate structure and the conditions under which the carpentry work is to be installed, and notify the Contractor in writing of conditions detrimental to the work. Do not proceed with the installation until unsatisfactory conditions have been corrected in a manner acceptable to the installer.
- E. Coordinate carpentry work to other work; scribe and cope as required for accurate fit. Correlate location of furring, nailers, blocking, grounds and similar supports to allow proper attachment of other work.

3.02 JOIST FRAMING

- A. Provide framing of sizes and spacings shown.
- B. Install with crown edge up and support ends of each member with not less than 1-7/8 inches of bearing on support.
- C. Attach to wood bearing members by toe nailing or galvanized metal connectors. Provide blocking of joist at ends of joists unless nailed to header or supported by metal joist hanger.
- D. Do not notch joists.
- E. Do not bore holes in PSL which violate manufacturer's recommendations.
- F. Provide bridging between joists as noted on drawings.

3.03 STRUCTURAL PANELS

- A. Secure roof sheathing perpendicular to framing member with ends staggered and sheet ends over firm bearing. Provide solid edge blocking between sheets. Secure to wood framing with nails of size and spacing shown on Drawings.
- B. Secure wall sheathing with long dimension parallel to wall studs, with ends over firm bearing. Provide solid blocking at ends of sheets. Secure to wood framing with nails of size and spacing shown on Drawings.

- C. Secure floor sheathing perpendicular to framing members with ends staggered and sheet ends over firm bearing. Attach to framing with subfloor glue and drywall screws.
- D. Oriented strand board with laminated face shall be attached to wood with laminated face against wood framing.

3.04 WOOD GROUND, NAILERS, BLOCKING AND SLEEPERS

- A. Provide wherever shown and where required for screening or attachment of other work. Form to shapes as shown and cut as required for true line and level of work to be attached. Coordinate location with other work involved.
- B. Attach to substrate as required to support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise shown. Build into masonry during installation of masonry work. Where possible, anchor to formwork before concrete placement.
- C. Provide permanent grounds of dressed, preservative treated, key-beveled lumber not less than 1-1/2" (38mm) wide and of thickness required to bring face of ground to exact thickness of finish material involved. Remove temporary grounds when no longer required.

3.05 WOOD FURRING

- A. Install plumb and level with closure strips at edges and openings. Shim with wood as required for tolerance of finished work.

3.06 MISCELLANEOUS FRAMING

- A. Firestops:
 - 1. Stud walls: Two inches thick by depth of member blocking at each floor level, top story ceiling level, and soffits as required.
 - 2. Floor and ceiling framing: Two inches thick by depth of wood member blocking, fitted to fill openings from one space to another to prevent drafts.
- B. Framing for mechanical work:
 - 1. Frame members for passage of pipes and ducts to avoid cutting structural members.
 - 2. Reinforce framing members where damaged by cutting.
- C. Blocking: Locate blocking to facilitate installation of finish materials, casework, fixtures, specialty items and trim railings.

END OF SECTION

SECTION 062000 - FINISH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Finish carpentry items.
- B. Hardware and attachment accessories.

1.02 RELATED REQUIREMENTS

- A. Section 06 10 00 - Rough Carpentry: Support framing, grounds, and concealed blocking.
- B. Section 08 14 16 - Flush Wood Doors.
- C. Section 08 80 00 - Glazing: Glass and glazing of wood partitions and screens.
- D. Section 09 90 00 - Painting and Coating: Painting and finishing of finish carpentry items.

1.03 REFERENCE STANDARDS

- A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials; current edition.
- B. ANSI A208.1 - American National Standard for Particleboard; 1999.
- C. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings, Safety Performance Specifications and Methods of Test; 2004.
- D. ASTM C 1036 - Standard Specification for Flat Glass; 2006.
- E. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2008.
- F. AWI/AWMAC (QSI) - Architectural Woodwork Quality Standards Illustrated; Architectural Woodwork Institute and Architectural Woodwork Manufacturers Association of Canada; 2005, 8th Ed., Version 2.0.
- G. AWPA C2 - Lumber, Timber, Bridge Ties and Mine Ties -- Preservative Treatment by Pressure Processes; American Wood-Preservers' Association; 2003.
- H. AWPA U1 - Use Category System: User Specification for Treated Wood; American Wood-Preservers' Association; 2007.
- I. BHMA A156.9 - American National Standard for Cabinet Hardware; Builders Hardware Manufacturers Association; 2003 (ANSI/BHMA A156.9).
- J. NEMA LD 3 - High-Pressure Decorative Laminates; National Electrical Manufacturers Association; 2005.
- K. NHLA G-101 - Rules for the Measurement & Inspection of Hardwood & Cypress; National Hardwood Lumber Association; 2007.
- L. PS 1 - Structural Plywood; 2007.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate the work with plumbing rough-in, electrical rough-in, and installation of associated and adjacent components.
- B. Sequence installation to ensure utility connections are achieved in an orderly and expeditious manner.

1.05 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.

B. Product Data:

1. Provide instructions for attachment hardware and finish hardware.

C. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, accessories, to a minimum scale of 1-1/2 inch to 1 ft (1:8).

1.06 QUALITY ASSURANCE

A. Grade materials in accordance with the following:

1. Softwood Lumber: In accordance with rules certified by ALSC; www.alsc.org.
2. Plywood: Certified by the American Plywood Association.
3. Hardwood Lumber: In accordance with NHLA Grading Rules; www.natllhardwood.org.

B. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum Five years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Protect work from moisture damage.

PART 2 PRODUCTS

2.01 MATERIALS - GENERAL

A. Unless otherwise indicated provide products of quality specified by Woodwork Institute Manual of Millwork for Premium grade.

B. Provide materials having fire and smoke properties as required by applicable code.

2.02 WOOD-BASED COMPONENTS

A. Not Used

2.03 SHEET MATERIALS

A. Softwood Plywood Not Exposed to View: Any face species, veneer core; PS 1 Grade A-B; glue type as recommended for application.

B. Softwood Plywood Exposed to View: Face species as indicated, plain sawn, medium density fiberboard core; PS 1 Grade A-B; glue type as recommended for application.

C. Hardwood Plywood: Face species as indicated, plain sawn, book matched, medium density fiberboard core; glue type as recommended for application.

2.04 PLASTIC LAMINATE MATERIALS

A. Not Used

2.05 ADHESIVE

A. Not Used

2.06 FASTENERS

A. Concealed Joint Fasteners: Threaded steel.

2.07 ACCESSORIES

A. Primer: Alkyd primer sealer.

B. Wood Filler: Solvent base, tinted to match surface finish color.

2.08 HARDWARE

A. Hardware: Comply with BHMA A156.9.

B. Shelf Standards: Flush Mounted style, US26D, 652 finish Manufactured by KV.

C. Shelf Brackets: To fit Standards style, US26D, 652.

2.9 FABRICATION

- A. Shop assemble work for delivery to site, permitting passage through building openings.
- B. Shop prepare and identify components for book match grain matching during site erection.
- C. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

2.10 SHOP FINISHING

- A. Apply wood filler in exposed nail and screw indentations.
- B. On items to receive transparent finishes, use wood filler that matches surrounding surfaces and is of type recommended for the applicable finish.
- C. Finish work in accordance with AWI Architectural Woodwork Quality Standards Illustrated, Section 1500:
 - 1. Transparent: Polyurethane – see division 9
 - 2. Opaque: Paint – see division 9

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify adequacy of backing and support framing.
- B. Verify mechanical, electrical, and building items affecting work of this section are placed and ready to receive this work.

3.02 INSTALLATION

- A. Set and secure materials and components in place, plumb and level.
- B. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch (1 mm). Do not use additional overlay trim to conceal larger gaps.

3.03 PREPARATION FOR SITE FINISHING

- A. Set exposed fasteners. Apply wood filler in exposed fastener indentations. Sand work smooth.

3.04 TOLERANCES

- A. Maximum Variation from True Position: 1/16 inch (1.5 mm).
- B. Maximum Offset from True Alignment with Abutting Materials: 1/32 inch (0.7 mm).

3.05 SCHEDULE

- A. Interior:
 - 1. Moldings, Bases, Casings, and Miscellaneous Trim: Clear white pine; prepare for transparent finish.
 - 2. Shelving: Birch plywood w. solid wood edge banding; prepare for paint finish.

END OF SECTION

SECTION 06600 - SOLID SURFACES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Lavatory Tops with Integral Bowls and Backsplash.
- B. Shower Shelf.

1.2 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Framing and blocking.
- B. Section 15410 - Plumbing Fixtures: Adjacent plumbing fixture installation.

1.3 REFERENCES

- A. ANSI Z 124.3-2005 - Plastic Lavatories.
- B. ASTM G 21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
- C. ASTM G 22 - Standard Practice for Determining Resistance of Plastics to Bacteria.

1.4 PERFORMANCE REQUIREMENTS:

- A. Provide solid surface material that conforms to ANSI/ICPA SS-1 for workmanship and finish, structural integrity and material characteristics.
- B. Provide Lavatory tops and sinks that conform to ANSI 124.3-2005 when tested in the following areas:
 - 1. Color fastness - No change, 200 hours.
 - 2. Wear and Cleaning - Passes.
 - 3. Impact resistance - Passes.
 - 4. Stain Resistance - Passes.
 - 5. Chemical Resistance - Passes.
 - 6. Drain Fitting Connection - Passes.
 - 7. Loads on Lavatory Tops - Passes.
 - 8. Thermal Shock Resistance - Passes.
 - 9. Cigarette Burn Test - Passes.
- C. Fungal and Bacterial Resistance: Provide a solid surface that does not support fungal and bacterial growth as tested in accordance with ASTM G 21 and ASTM G 22.
- D. Provide solid surface material that conforms to ANSI/ICPA SS-1 for workmanship and finish, structural integrity and material characteristics.
- E. Fire Performance Characteristics: Provide a solid surface wall cladding conforming with the NFPA class A fire rating as determined by ASTM E 84.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's complete and current product data for each product required,

including:

1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Complete installation methods.
- C. Shop Drawings: Show locations of each item and installation details. Provide plan, section and elevation drawings conditions as necessary to depict correct installation procedures.
- D. Selection Samples: Color charts consisting of actual product pieces, demonstrating full range of available colors, for initial color selection.
- E. Verification Samples: 3 inch (76 mm) square samples, depicting specified finish.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this section will be provided by a single manufacturer with a minimum of ten (10) years experience.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five (5) years demonstrated experience in installing products of the same type and scope as specified.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
1. Finish areas designated by Architect.
 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 3. Refinish mock-up area as required to produce acceptable work.
- D. Provide test reports showing compliance with the performance specified for:
1. Fire-related properties.
 2. Accessibility and safety properties.
 3. Impact strength.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.9 WARRANTY

- A. At project closeout, provide to the owner or owners representative an executed copy of the manufacturer's limited warranty against manufacturing defect outlining its terms, conditions and exclusions from coverage.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Atlanta Marble Manufacturing Inc., which is located at: 224 Rio Circle.; Decatur, GA 30030; Tel: 404-378-3132; Fax: 404-378-4871; Email: jhaim@constructionresourcesusa.com; Web: www.constructionresourcesusa.com
- B. Glacier Bay, Newport model with integral sink
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 VANITY TOPS

- A. Standard Cultured Marble Oval Vanity Sink:
 - 1. 31 inches x 22 inches Oval Shape - As shown in Contract Drawings.
 - 2. Thickness, 3/4 inch
 - 3. Edge Type: Overhangs cabinet.
 - 4. Edge Treatment: Double 1/8 inch (3mm) Radius.
 - 5. Backsplash: 4 inch Attached covered backsplash
 - 6. Sink Mounting: Integrally bonded
 - 7. Sink: Oval - 16 inches w x 12 1/4 inches long x 6 1/4 inches deep.

2.3 SHOWER SHELF

- A. Shower Shelf - As shown in Contract Drawings:
 - 1. 47 inch x 4 1/4 inch Shelf:
 - 2. Thickness, 3/4 inch
 - 3. Edge Treatment: Double 1/8 inch (3mm) Radius.

2.4 FINISHES

- A. Colors: Provide surfaces in colors as follows:
 - 1. Color: 505 Pearl
 - 2. Finish: Matte.

2.5 ACCESSORIES

- A. Provide appropriate fasteners and accessories as required to properly complete installation.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

3.5 ADJUSTING AND CLEANING

- A. Verify that surfaces are level, plumb and rigidly secured to substrate; make any adjustments required.
- B. Clean finished surfaces and immediate areas of installation, using materials and methods recommended by manufacturer. Remove from project site packaging and debris caused by installation.

END OF SECTION

SECTION 07210 - BUILDING INSULATION

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Formaldehyde-free™ fiberglass thermal insulation.
- B. Related Sections:
 - 1. Division 7 Section: Joint Sealants.
 - 2. Division 9 Section: Gypsum Board.
 - 3. Division 15 Section: Mechanical: [Duct insulation] [Equipment insulation] [And] [Pipe insulation].

1.02 REFERENCES

- C. ASTM International:
 - 1. ASTM C165 Standard Test Method for Measuring Compressive Properties of Thermal Insulations.
 - 2. ASTM C356 Standard Test Method for Linear Shrinkage of Preformed High-Temperature Thermal Insulation Subjected to Soaking Heat.
 - 3. ASTM C411 Standard Test Method for Hot-Surface Performance of High-Temperature Thermal Insulation.
 - 4. ASTM C423 Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
 - 5. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
 - 6. ASTM C612 Standard Specification for Mineral Fiber Block and Board Thermal Insulation.
 - 7. ASTM C665 Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
 - 8. ASTM C764 Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation.
 - 9. ASTM C1014 Standard Specification for Spray-Applied Mineral Fiber Thermal and Sound Absorbing Insulation.
 - 10. ASTM C1015 Standard Practice for Installation of Cellulosic and Mineral Fiber Loose-Fill Thermal Insulation.
 - 11. ASTM C1104 Standard Test Method for Determining the Water Vapor Sorption of Unfaced Mineral Fiber Insulation.
 - 12. ASTM C1149 Standard Specification for Self-Supported Spray Applied Cellulosic Thermal Insulation
 - 13. ASTM C1304 Standard Test Method for Assessing the Odor Emission of Thermal Insulation Materials.
 - 14. ASTM C1320 Standard Practice for Installation of Mineral Fiber Batt and Blanket Thermal Insulation for Light Frame Construction.
 - 15. ASTM C1338 Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings.
 - 16. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 17. ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound

Transmission Loss of Building Partitions and Elements.

18. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials.
19. ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials.
20. ASTM E136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C.
21. ASTM E736 Standard Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members.
22. ASTM E759 Standard Test Method for Effect of Deflection on Sprayed Fire-Resistive Material Applied to Structural Members.
23. ASTM E970 Standard Test Method for Critical Radiant Flux of Exposed Attic Floor Insulation Using a Radiant Heat Energy Source.

D. California Integrated Waste Management Board (CIWMB):

1. Section 01350 Special Environmental Requirements Specification.

E. Leadership in Energy and Environmental Design (LEED):

1. Materials and Resources (MR) Credit 4.1 - Recycled Content 10%.
2. Materials and Resources (MR) Credit 4.2 - Recycled Content 20%.
3. Materials and Resources (MR) Credit 5.1 – Regional materials 10%.
4. Materials and Resources (MR) Credit 5.1 – Regional materials 20%.

1.03 SYSTEM DESCRIPTION

F. Performance Requirements: Provide thermal blanket insulations that have been manufactured, fabricated and installed to the following criteria:

1. Surface Burning Characteristics, Unfaced (ASTM E84): Flamespread index 25, smoke developed 50.
2. Recycled Glass Content: 25%.
3. Combustibility (ASTM E136): Noncombustible.
4. Formaldehyde Content: Free of formaldehyde.
5. [Specify any additional performance requirements (fire, sound, thermal).].

1.04 SUBMITTALS

G. General: Submit listed submittals in accordance with provisions of Section 01300 Administrative Requirements.

H. Product Data: Submit manufacturer's product data and installation instructions, including manufacturer's SPEC-DATA® sheets.

1.05 QUALITY ASSURANCE

I. Obtain each type of building insulation through a single source.

J. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar size and complexity.

1.06 DELIVERY, STORAGE & HANDLING

K. General: Comply with Division 1 Product Requirement Section.

L. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

- M. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

PART 2 PRODUCTS

1.07 FORMALDEHYDE-FREE™™ BUILDING INSULATION

- A. Manufacturer: Johns Manville.
 - 1. Contact: 717 17th Street 80202; PO Box 5108, Denver, CO 80217-5108; Telephone: (800) 654-3103; Fax: (303) 978-2318; E-mail: pic@jm.com; website: www.specJM.com.
- B. Proprietary Products/Systems: Building insulation, including the following:
 - 1. JM Formaldehyde-free™ MR®-Faced Batts:
 - a. Thermal Resistance (R-Value) (ASTM C518): [Walls R-13, Floors R-19.].
 - b. Water Vapor Permeance (ASTM E96): 1.0 perm (57.5 ng/Pa × s × m²)
 - c. Water Vapor Sorption (ASTM C1104): 5% or less by weight.
 - d. Odor Emission (ASTM C1304): Pass.
 - e. Corrosiveness (ASTM C665, 13.8): Pass.
 - f. Fungi Resistance (ASTM C1338): Pass.
 - g. Fungi Resistance (ASTM D2020): Pass
 - h. Recycled Content: Certified by Scientific Certification Systems to contain minimum of 20% post-consumer and 5% pre-consumer recycled glass product, on average of manufacturer's products.
 - i. Prove through documentation that product complies with CIWMB Section 01350 for indoor air quality.
 - j. Material Standard:
 - 1) MR-faced Batts: ASTM C665, Type II, Class C, Category 1.
 - 2. General: Provide insulating materials that comply with requirements and referenced standards.
 - a. Preformed Units: Sizes to fit applications indicated; selected from manufacturer's standard thicknesses, widths and lengths.

1.08 PRODUCT SUBSTITUTIONS:

- C. Substitutions: No substitutions permitted.

1.09 ACCESSORIES

- D. Tape: Self-adhesive vapor retarder tape with flamespread index of 25 or less, smoke developed index of 50 or less.

PART 3 EXECUTION

1.010 MANUFACTURER'S INSTRUCTIONS

- A. Comply with the instructions and recommendations of the building insulation manufacturer.

1.011 EXAMINATION

- B. Site Verification of Conditions:
 - 1. Verify that site conditions are acceptable for installation of building insulation.
 - 2. Do not proceed with installation of building insulation until unacceptable conditions are corrected.

1.012PREPARATION

- C. Protection: Protect adjacent work areas and finish surfaces from damage during product installation.

1.013INSTALLATION

- D. General: Comply with insulation manufacturer's written instructions applicable to products and application indicated.
 - 1. Install insulation that is undamaged, dry and unsoiled and that has not been left exposed at any time to ice and snow.
 - 2. Extend insulation in thickness indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation.
 - 3. Water Piping Coordination: If water piping is located on inside of insulated exterior walls, coordinate location of piping to ensure that it is placed on warm side of insulation and insulation encapsulates piping.
 - 4. Apply single layer of insulation to produce thickness indicated, unless multiple layers are otherwise shown or required to make up total thickness.
- E. Installation of General Building Insulation:
 - 1. Set vapor-retarder-faced units with vapor retarder to warm side of construction, unless otherwise indicated. Do not obstruct ventilation spaces, except for firestopping.
 - b. Tape ruptures in vapor retarder, and seal each continuous area of insulation to surrounding construction to ensure airtight installation.
 - 2. Install glass-fiber blankets in cavities formed by framing members according to the following requirements:
 - c. Use blanket widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill cavity, provide lengths that will produce a snug fit between ends.
 - d. Place blankets in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
 - 3. Wood-Framed Construction: Install mineral-fiber blankets in accordance with ASTM C1320 and as follows:
 - e. With faced blankets having stapling flanges, secure insulation by friction fit inset or face stapling flanges to sides of framing members.
 - f. With faced blankets having stapling flanges, lap blanket flange over flange of adjacent blanket to produce airtight installation after concealing finish material is in place.

1.014PROTECTION

- F. Protect installed work from damage due to subsequent construction activity on the site. Repair damage to installed products prior to installation of finish materials.

END OF SECTION

SECTION 07900 - WEATHERPROOF SEALANTS

PART 4 GENERAL

4.1 SECTION INCLUDES

- A. Interior and Exterior weatherproofing sealants.

4.2 RELATED SECTIONS

- A. Section 06112 - Framing and Sheathing.
- B. Section 06200 - Finish Carpentry.
- C. Section 09260 - Gypsum Board Assemblies.

4.3 REFERENCES

- A. ASTM C 920 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers.
- B. FS TT-S-00230C - Sealing Compound, Elastomeric Type, Single Component (For Calking, Sealing, and Glazing In Buildings and Other Structures).
- C. AAMA 504 - Voluntary Specification for Field Testing of Windows and Sliding Glass.

4.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

4.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer with a minimum of 3 years documented experience in the manufacture of construction sealants.

4.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store materials in accordance with the manufacturer's instructions.
 - 1. Store materials in dry, enclosed area with adequate protection from moisture.
 - 2. Keep containers sealed until ready for use.
 - 3. Storage Temperature: 40 degrees F (4.4 degrees C) and 100 degrees F (37.7 degrees C). Do not permit freezing.

4.7 SEQUENCING

- A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

4.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 5 PRODUCTS

5.1 MANUFACTURERS

- A. Acceptable Manufacturer: Henkel Corporation, which is located at: 32150 Just Imagine Dr. ; Avon, OH 44011; Toll Free Tel: 800-624-7767; Tel: 440-205-3900; Email: [request info \(bill.longo@us.henkel.com\)](mailto:request_info@bill.longo@us.henkel.com); Web: www.greenseries.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

5.2 APPLICATIONS/SCOPE

- A. Provide Acrylic Urethane Sealant for sealing around exterior window and door frames, sill plates, electrical and plumbing penetrations, and other areas as indicated on the Drawings.

5.3 MATERIALS

- A. VOC Compliant Indoor/Outdoor Sealant: GreenSeries Acrylic/Urethane Indoor/Outdoor Sealant, synthetic latex rubber, acrylic/urethane latex sealant. Cured sealant is mold and mildew resistant and paintable.
 - 1. Indoor Air Quality Certified: Certified by the GREENGUARD Environmental Institute under the GREENGUARD Product Emission Standard for Children & Schools, Certification No: A10Gc9000511-4.
 - 2. LEED qualified.
 - 3. VOC: Compliant.
 - 4. Meets performance characteristics of TT-S-00230C, Type II, Class A and ASTM C 920, Grade NS, Class 25.
 - 5. Nonflammable/Non-toxic.
 - 6. Color:
 - a. White.
 - 7. Tooling/Open Time: 10 to 20 minutes.
 - 8. Skin Time:
 - a. 30 to 60 minutes.
 - 9. Slump: 0.10 inch max.
 - 10. Application Temperature:
 - a. 40 degree F minimum.
 - 11. Service Temperature:
 - a. Minus 5 degrees F to 170 degrees F.
 - 12. Shore "A" Hardness: 35.
 - 13. Tensile Strength: 70 psi.
 - 14. Elongation: 900 percent.
 - 15. Movement Capability: plus or minus 25 percent.
 - 16. Peel Strength at 180 degrees:
 - a. 35 pli - wood.
 - b. 25 pli - concrete.
 - c. 28 pli - aluminum.

PART 6 EXECUTION

6.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify substrate surfaces are ready to receive work.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

6.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Concrete or block walls must be well cured, dry and free of any release agents.

6.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.

6.4 CLEANING

- A. Clean adjacent soiled surfaces.

6.5 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 08210 - WOOD DOORS

PART 7 GENERAL

7.1 SECTION INCLUDES

- A. Wood interior doors.

7.2 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Installation and requirements for rough door opening.
- B. Section 06200 - Finish Carpentry: Installation and requirements for door frame casing and trim.
- C. Section 09900 - Paints and Coatings: Field finishing of wood doors.

7.3 REFERENCES

- A. American National Standards Institute (ANSI): A208.1 - Standard for Particleboard.
- B. American Society for Testing and Materials (ASTM): ASTM D 1761 - Screw Withdrawal Test Method.
- C. American Society for Testing and Materials (ASTM): ASTM D 5456 - Standard Specification for Evaluation of Structural Composite Lumber Products.
- D. American Society for Testing and Materials (ASTM): ASTM E 90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
- E. American Society for Testing and Materials (ASTM): ASTM E413 - Classification for Rating Sound Insulation.
- F. American Society for Testing and Materials (ASTM): ASTM E 1332 - Standard Classification for Determination of Outdoor-Indoor Transmission Class.
- G. American Society for Testing and Materials (ASTM): ASTM E 2235 - Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods.
- H. Architectural Woodwork Institute: AWI/AWMAC- Quality Standards or The Architectural Woodwork Institute (AWI) & The Architectural Woodwork Manufacturers Association of Canada (AWMAC).
- I. National Fire Protection Association (NFPA): NFPA 80 - Standard for Fire Doors, Fire Windows.
- J. National Fire Protection Association (NFPA): NFPA 252- Standard Method of Fire Test for Door Assemblies.
- K. International Standards Organization (ISO): ISO 9001-2000/
- L. Warnock Hersey Intertek Testing Services (ITS-WH): ITS Certification Listings for Fire Doors.
- M. International Building Code (IBC).
- N. National Building Code (NBC) - Canada.

- O. Uniform Building Code (UBC): UBC 7-2-1994 UBC Fire Test (Neutral Pressure).
- P. Uniform Building Code (UBC): UBC 7-2-1997 UBC Fire Test (Positive Pressure).
- Q. Underwriters' Laboratories (UL): UL 10B - Standard for Fire Test of Door Assemblies ;
- R. Underwriters Laboratories (UL): UL 10C- Standard for Positive Pressure Fire Test of Door Assemblies.
- S. Underwriters Laboratories Canada (ULC): CAN 4-S104 - Fire Tests of Door Assemblies.
- T. Window and Door Manufacturer's Association (WDMA): WDMA 1.S.1A-04.

7.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each type of door, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings:
 - 1. Elevations indicating location, size and kind of each door, construction, swing, label, undercut, and hardware location and machining requirements. Include location and extent of hardware blocking, fire ratings, requirement for factory finishing, glass and other pertinent data.
 - 2. Elevations indicating veneer requirements. Include veneer grade, cut, specie, piece match, face match, appearance of pairs, sets and transoms and aesthetic grade. For HPDL face requirement include manufacturer, thickness, pattern, color and finish.
- D. Samples: For factory finished doors, submit two sets of 8 by 10 inch (203 by 254 mm) selected veneer samples with the standard finish colors representing manufacturer's full range of available colors and finishes. Samples shall represent the color selected on veneer typical of grain patterns and coloration for the specified specie and cut selected.
 - 1. For decorative laminate, submit two sets of 8 by 10 inch (203 by 254 mm) samples of each color, finish and pattern required.
 - 2. Where Architect has furnished custom color for matching, include original color sample.
- E. Corner Sample: 8-1/2 by 11 inches (216 by 279 mm) corner sample cut away to show stile, rails, crossbanding, core and face veneer with description and date.
- F. Selection Samples: For each finish product specified, submit two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- G. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
- H. Certificates: Manufacturer's certification that doors comply with specified performance and physical properties.

7.5 QUALITY ASSURANCE

- A. Non-Fire-Rated Doors: Provide doors that comply with AWI Section 1300 and WDMA 1.S. 1A.

- B. Manufacturer Qualifications: A qualified manufacturer that is certified for chain of custody by an FSC-accredited certification body.
- C. Single Source Responsibility: Provide doors from a single source to ensure uniformity in quality of appearance, face veneer, finish and construction.

7.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation. Inspect for damage.
- B. Storage and Protection: Comply with door manufacturer's written recommendations and requirements of AWI Section 1300 G-23 and WDMA standards.

7.7 PROJECT CONDITIONS

- A. Maintain environmental conditions including temperature, humidity, and ventilation within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits. Inspect for damage prior to installation.

7.8 WARRANTY

- A. Provide manufacturer's standard warranty against defects in materials and workmanship for the following duration:
 - 1. Warranty Period, Interior Doors: 1 year from date of Substantial Completion.

PART 8 PRODUCTS

8.1 MANUFACTURERS

- A. Acceptable Manufacturer: Masonite International Corp. which is located at: 1 N Dale Mabry Hwy., Suite 950, Tampa, FL 33601; Toll Free Tel: (813) 877-2726, (800) 895-2723; Fax (813) 739-0106; Email: masonitecorp@masonite.com; Web: www.masonite.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

8.2 FLUSH WOOD INTERIOR DOORS

- A. Solid Core Interior Wood Door:
 - 1. Product: Flush Hardwood Split Jamb Prehung Door as manufactured by Masonite
 - 2. Stiles: 1-3/8 inches clear, finger-jointed, low-density wood.
 - 3. Top and Bottom Rails: 1-3/8 inches low-density wood or SCL (LVL or LSL).
 - 4. Core: Particleboard.
 - 5. Faces: stain grade Birch veneer.
 - 6. Prebored for Standard Lockset
 - 7. Hinges: 3 standard weight radius mortise hinges, oil rubbed bronze finish

PART 9 EXECUTION

9.1 EXAMINATION

- A. Do not begin installation until adjacent construction has been properly prepared.
- B. If adjacent construction preparation is the responsibility of another installer, notify Architect

of unsatisfactory preparation before proceeding.

9.2 PREPARATION

- A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

9.3 INSTALLATION

- A. Install wood doors in accordance with manufacturer's instructions.
- B. Install wood door hardware in accordance with door and hardware manufacturer's instructions. Adjust hardware for proper door function and latching, and for smooth operation without excessive force or excessive clearance.

9.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair, or replace damaged products before Substantial Completion.

9.5 SCHEDULES

- A. Door Schedule: See drawings

END OF SECTION

SECTION 08310 - ACCESS DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

- 1 Non-fire rated wall access panels.
- 2 Related hardware and attachments.

B. Related Sections:

- 1 Section 09260 - Gypsum Board Assemblies.
- 2 Section 09900 - Paints and Coatings.
- 3 Division 15 - Mechanical.

1.2 SYSTEM DESCRIPTION

A. Design Requirements:

1. Verification: Obtain specific locations and sizes for required access doors and frames from trades, including mechanical and electrical, requiring access to concealed equipment and indicate on submittal schedule.

1.3 SUBMITTALS

A. Comply with Division 1 requirements.

B. Product Data: Manufacturer's technical data for each type of access door and panel assembly, including setting drawings, templates, fire-resistive characteristics, finish requirements, and details of anchorage devices.

1. Include complete schedule, types, locations, construction details, finishes, latching or locking provisions, and other pertinent data.

D. Manufacturer's Installation Instructions: Indicate installation requirements and rough-in dimensions.

1.4 QUALITY ASSURANCE

A. Comply with Section Division 1 requirements

B. Single Source Responsibility: Obtain access door and panel units, and frames for entire Project from 1 source and 1 single manufacturer.

D. Size Variations: Obtain Architect's acceptance and approval of manufacturer's standard size units that may vary slightly from sizes indicated on Drawings.

E. Coordination: Provide inserts and anchoring devices that will be built into other Work for installation of access door assemblies. Coordinate delivery with other Work to avoid delay.

1.5 DELIVERY, STORAGE AND HANDLING

A. Comply with Division 1 requirements.

B. Package and ship per manufacturer's recommendations.

C. Store per manufacturer's instructions.

1. Store in dry area out of direct sunlight.

1.6 WARRANTY

A. Provide manufacturer's written warranty.

- B. Warrants all access panels to be free from manufacturing defects in materials and workmanship for a period of one (1) year from the date of final acceptance, but not more than one and one half (1 ½) years from the date of shipment. Should a product fail to function in normal use within this period, Nystrom shall furnish a new part at no charge. Failure to use product in methods consistent with Nystrom product manuals shall relieve Nystrom of any liability. Our liability under this warranty excludes installation or removal costs involved in the product replacement and excludes any responsibility for incidental or consequential damage of any nature.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Subject to compliance with requirements, provide products from the following manufacturer:

1. Nystrom Building Products
9300 73rd Ave. N
Brooklyn Park, MN 55428
Toll Free Hotline: 800-547-2635
Toll Free Fax: 800-317-8770
Direct Phone: 612-781-7850
Direct Fax: 612-781-1363
E-Mail: info@nystrom.com
Internet: www.nystrom.com

- B. Substitutions: Comply with Division 1 requirements.

- C. Specifications and Drawings are based on manufacturer's proprietary literature from Nystrom Building Products. Other manufacturers shall comply with minimum levels of material, color selection, and detailing indicated in Specifications or on Drawings. Architect will be sole judge of appropriateness of substitutions.

2.2 MATERIALS

- A. Commercial quality, cold steel sheet with baked on rust inhibitive gray primer.
- B. Galvanized, bonderized steel with baked on rust inhibitive gray primer.
- C. Type: No. 304 stainless steel with No. 4 satin polish finish.

2.3 ACCESS PANELS

- A. Non rated flush access doors, Nystrom N series
- 1) Door: Fabricate from 14-gauge cold rolled sheet steel.
 - 2) Frame: Fabricate from 16-gauge cold rolled sheet steel. Provide 1/4 inch mounting holes.
 - a) NT - All surfaces - 1 inch flange at perimeter.
 - 3) Hinge:
 - a) Concealed pin type, spring loaded to allow for door removal, set to open 175 degrees.
 - 4) Latching/Locking Devices: Keyed latch.
 - 5) Finish:
 - a) Phosphate dipped with factory applied prime coat.

3.4 ADJUST AND CLEAN

- A. Adjust panel after installation for proper operation.
- B. Remove and replace panels or frames that are warped, bowed, or damaged.

END OF SECTION

SECTION 08552 - ALUMINUM-CLAD WOOD DOUBLE-HUNG WINDOWS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Aluminum-clad wood double-hung replacement windows.

1.2 RELATED SECTIONS

- A. Section 07270 (07 27 00) - Air Barriers: Water-resistant barrier.
- B. Section 07920 (07 92 00) - Joint Sealants: Sealants and caulking.

1.3 REFERENCES

- A. American Architectural Manufacturers Association (AAMA):
 - 1. AAMA 502 - Voluntary Specification for Field Testing of Windows and Sliding Doors.
 - 2. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
 - 3. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM B 117 - Operating Salt Spray (Fog) Apparatus.
 - 2. ASTM C 1036 - Flat Glass.
 - 3. ASTM C 1048 - Heat-Treated Flat Glass – Kind HS, Kind FT Coated and Uncoated Glass.
 - 4. ASTM D 1149 - Rubber Deterioration – Surface Ozone Cracking in a Chamber.
 - 5. ASTM D 2803 - Filiform Corrosion Resistance of Organic Coatings on Metal.
 - 6. ASTM D 3656 - Insect Screening and Louver Cloth Woven from Vinyl-Coated Glass Yarns.
 - 7. ASTM D 4060 - Abrasion Resistance of Organic Coatings by the Taber Abraser.
 - 8. ASTM E 283 - Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Difference Across the Specimen.
 - 9. ASTM E 330 - Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
 - 10. ASTM E 547 - Water Penetration of Exterior Windows, Curtain Walls and Doors by Cyclic Static Air Pressure Differential.
 - 11. ASTM G 85 - Modified Salt Spray (Fog) Testing.

C. Screen Manufacturers Association (SMA):

1. SMA 1201 - Specifications for Insect Screens for Windows, Sliding Doors and Swinging Doors.

D. Window and Door Manufacturers Association (WDMA):

1. ANSI/AAMA/NWDA 101/I.S.2 - Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.
2. ANSI/AAMA/NWDA 101/I.S.2/NAFS-02 - Voluntary Performance Specification for Windows, Skylights and Glass Doors.
3. WDMA I.S.4 - Industry Standard for Water-Repellent Preservative Non-Pressure Treatment for Millwork.

1.4 PERFORMANCE REQUIREMENTS

- A. Windows shall meet specifications in accordance with ANSI/AAMA/NWDA I.S.2.
- B. Window Unit Air Leakage, ASTM E 283, 1.57 psf (25 mph): 0.3 cfm per square foot of frame or less.
- C. Window Unit Water Penetration: No water penetration through window unit when tested in accordance with ASTM E 547, under static pressure of 7.5 psf (52 mph) after 4 cycles of 5 minutes each, with water being applied at a rate of 5 gallons per hour per square foot.

1.5 SUBMITTALS

- A. Comply with Division 1 requirements.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Shop Drawings: Submit manufacturer's shop drawings, indicating dimensions, construction, component connections and locations, anchorage methods and locations, hardware locations, and installation details.
- D. Samples: Submit full-size or partial full-size sample of window illustrating glazing system, quality of construction, and color of finish.
- E. Warranty: Submit manufacturer's standard warranty.

1.6 QUALITY ASSURANCE

- A. Mockup:
 1. Provide sample installation for field testing window performance requirements and to determine acceptability of window installation methods.
 2. Approved mockup shall represent minimum quality required for the Work.
 3. Approved mockup shall [not] remain in place within the Work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site undamaged in manufacturer's or sales branch's original, unopened containers and packaging, with labels clearly identifying manufacturer and product name. Include installation instructions.
- B. Storage: Store materials in an upright position, off ground, under cover, and protected from weather, direct sunlight, and construction activities.
- C. Handling: Protect materials and finish during handling and installation to prevent damage.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Pella Corporation, 102 Main Street, Pella, Iowa 50219. Toll Free (800) 54-PELLA. Phone (641) 621-1000. Website www.pella.com.
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 ALUMINUM-CLAD WOOD DOUBLE-HUNG REPLACEMENT WINDOWS

- A. Aluminum-Clad Wood Double-Hung Replacement Windows: Architect Series factory-assembled aluminum-clad wood double-hung windows. Sash shall tilt to interior without removal for cleaning.
- B. Frame:
 - 1. Select softwood, water-repellent, preservative-treated with EnduraGuard® in accordance with WDMA I.S.-4. EnduraGuard includes water-repellency, three active fungicides and an insecticide applied to the frame.
 - 2. Interior Exposed Surfaces: Clear Pine] with no visible fastener holes..
 - 3. Exterior Surfaces: Clad with aluminum.
 - 4. Overall Frame Depth: 5 inches (127 mm).
- C. Sash:
 - 1. Select softwood, water water-repellent, preservative-treated with EnduraGuard in accordance with WDMA I.S.-4. EnduraGuard includes water-repellency, three active fungicides and an insecticide applied to the sash.
 - 2. Interior Exposed Surfaces: Clear Pine with no visible fastener holes..
 - 3. Exterior Surfaces: Clad with aluminum, lap-jointed at corners.
 - 4. Corners: Mortised and tenoned, glued and secured with metal fasteners.
 - 5. Sash Thickness: 1-3/4 inches (44 mm).

- D. Weather Stripping:
1. Water-stop santoprene wrapped foam at head and sill.
 2. Thermal-plastic elastomer bulb with slip coating set into lower sash for tight contact at checkrail.
 3. Vinyl-wrapped foam inserted into jambliner or jambliner components to seal to sides of sash.

2.3 GLAZING

- A. Glazing:
1. Float Glass: ASTM C 1036, Quality 1.
 - a. Tempered Glass: ASTM C 1048.
 2. Type: Silicone-glazed 5/8-inch dual-seal, tempered, insulating glass, clear, multi-layer Low-E coated with argon.
 3. Integral Light Technology Glazing and Grilles:
 - a. Insulating glass contains non-glare grid between 2 panes of glass.
 - b. Non-glare Grid: Adhered to glass.
 - c. Room Side Grilles: Solid 7/8-inch wide Clear Pine.
 - d. Exterior Grilles: Extruded aluminum. Dimension to match room side grilles.
 - e. Bars shall be adhered to both sides of insulating glass with VHB acrylic adhesive tape and aligned with foam grid.
 - f. Finish: Exterior surfaces finished to match window cladding. Interior surfaces unfinished, ready for site finishing.

2.4 OPTIONS

- A. Insect Screens: Standard full.
1. Compliance: ASTM D 3656 and SMA 1201.
 2. Screen Cloth: Vinyl-coated fiberglass, 18/16 mesh.
 3. Set in aluminum frame fitted to inside of window.
 4. Complete with necessary hardware.
 5. Screen Frame Finish: Baked enamel.
 - a. Color: Finish to match exterior window cladding.

2.5 HARDWARE

- A. Balances:
 - 1. Block-and-tackle balances.
 - 2. Balances are attached to frame and connected to sash with polyester cord.
- C. Locking System:
 - 1. Self-aligning sash lock factory-installed.
 - 2. One installed on units with frame width less than 37 inches, 2 locks installed on units with frame width of 37 inches or greater.
- D. Sash Lifts:
 - 1. Sash lift furnished for field installation.
 - 2. One sash lift on units with frame width less than 37 inches, 2 sash lifts on units with frame width of 37 inches or greater.
- E. Lock and Sash Lift Finish: Satin nickel.

2.6 TOLERANCES

- A. Windows shall accommodate the following opening tolerances:
 - 1. Vertical Dimensions Between High and Low Points: Plus 1/4 inch, minus 0 inch.
 - 2. Width Dimensions: Plus 1/4 inch, minus 0 inch.
 - 3. Building Columns or Masonry Openings: Plus or minus 1/4 inch from plumb.

2.7 FINISH

- A. Exterior Finish System: Pella EnduraClad.
 - 1. Exterior aluminum surfaces shall be finished with the following multi-stage system:
 - a. Clean and etch aluminum surface of oxides.
 - b. Pre-treat with chrome phosphate conversion coating.
 - c. Pre-treat with chromic acid sealer/rinse.
 - d. Top coat with baked-on polyester enamel.
 - 2. Color: Iron Ore.
 - 3. Performance Requirements: Exterior aluminum finishes shall meet or exceed the following performance requirements of AAMA 2605:
 - a. Dry Film Hardness: Eagle Turquoise Pencil, F minimum.

- b. Film Adhesion: 1/16-inch crosshatch, dry, wet, boiling water.
 - c. Impact Resistance: 1/10-inch distortion, no film removal.
 - d. Abrasion Resistance: Falling sand coefficient value of 20 minimum.
 - e. Chemical Resistance: 10 percent Muriatic acid, 15 minutes. Mortar pat test, 24 hours.
 - f. Detergent Resistance: 3 percent at 100 degrees F, 72 hours.
 - g. Corrosion Resistance: Humidity, 3,000 hours. Salt spray exceeds 3,000 hours.
- B. Exterior Finish System Performance Requirements: Pella EnduraClad.
- 1. Exterior aluminum finishes shall meet or exceed following performance requirements:
 - a. Ozone Deterioration, ASTM D 1149, Modified: 5 ppm ozone, 160 degrees F, 60 percent relative humidity, 100 hours exposure, little or no loss of cure.
 - b. Filiform Corrosion Resistance of Organic Coatings on Metal, ASTM D 2803: No corrosion.
 - c. Taber Abrasion Resistance, ASTM D 4060: 500 g weight, CS-10 wheel, 500 cycles, less than 25 g weight loss.
 - d. Cyclic Acidified Salt Fog Test, ASTM G 85, Appendix A-2.
- C. Interior Finish: Factory-primed with 1 coat acrylic latex.

2.8 INSTALLATION ACCESSORIES

- A. Flashing/Sealant Tape: Pella SmartFlash.
- 1. Aluminum-foil-backed butyl window and door flashing tape.
 - 2. Maximum Total Thickness: 0.013 inch.
 - 3. UV resistant.
 - 4. Verify sealant compatibility with sealant manufacturer.
- B. Insulating-Foam Sealant: Dow Great Stuff Window & Door.
- 1. Low-pressure, polyurethane window and door insulating-foam sealant.

2.9 SOURCE QUALITY CONTROL

- A. Factory Testing: Factory test individual standard operable windows for air infiltration in accordance with ASTM E 283, to ensure compliance with this specification.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive windows. Notify Architect of conditions that would adversely affect installation or subsequent use. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Install windows in accordance with manufacturer's instructions and approved shop drawings.
- B. Install windows to be weather-tight and freely operating.
- C. Maintain alignment with adjacent work.
- D. Secure assembly to framed openings, plumb and square, without distortion.
- E. Integrate window system installation with exterior weather-resistant barrier using flashing/sealant tape. Apply and integrate flashing/sealant tape with weather-resistant barrier using watershed principles in accordance with window manufacturer's instructions.
- F. Place interior seal around window perimeter to maintain continuity of building thermal and air barrier using insulating-foam sealant.
- G. Seal window to exterior wall cladding with sealant and related backing materials at perimeter of assembly.
- H. Leave windows closed and locked.

3.3 FIELD QUALITY CONTROL

- A. Field Testing: Field-test windows in accordance with AAMA 502, Test Method A. Manufacturer's representative shall be present.

3.4 CLEANING

- A. Clean window frames and glass in accordance with Division 1 requirements.
- B. Do not use harsh cleaning materials or methods that would damage finish.
- C. Remove labels and visible markings.

3.5 PROTECTION

- A. Protect installed windows to ensure that, except for normal weathering, windows will be without damage or deterioration at time of substantial completion.

END OF SECTION

SECTION 08710 - HARDWARE ACCESSORIES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Finish hardware for doors as specified and as listed in "Hardware Groups" and required by actual conditions.
 - 2. Include screws, special screws, bolts, special bolts, expansion shields, and other devices for proper application of hardware.
- B. Related Sections:
 - 1. Section 06101: Carpentry 1. Section 08110, Section 08120, and Section 08211 - Certain hardware items installed with doors.

1.2 GENERAL REQUIREMENTS

- A. Provide items, articles, materials, operations and methods listed, mentioned or scheduled herein or on drawings, in quantities as required to complete project. Provide hardware that functions properly. Prior to furnishing hardware, advise Architect of items that will not operate properly, are improper for conditions, or will not remain permanently anchored.

1.3 SUBMITTALS

- A. Hardware Schedule: Submit 5 copies of hardware schedule in vertical format as illustrated by the Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute. Schedules, which do not comply, will be returned for correction before checking. Hardware schedule shall clearly indicate architect's hardware group and manufacturer of each item proposed. The schedule shall be reviewed prior to submission by a certified Architectural Hardware Consultant, who shall affix his or her seal attesting to the completeness and correctness of the schedule.
 - 1. Provide 2 copies of illustrations from manufacturer's catalogs and data in brochure form.
 - 2. Check specified hardware for suitability and adaptability to details and surrounding conditions. Indicate unsuitable or incompatible items and proposed substitutions in hardware schedule.
 - 3. Provide listing of manufacturer's template numbers for each item of hardware in hardware schedule.
 - 4. Furnish other Contractors and Subcontractors concerned with copies of final approved hardware schedule. Submit necessary templates and schedules as soon as possible to hollow metal, wood door, and aluminum door fabricators in accordance with schedule they require for fabrication.
 - 5. Samples: Lever design or finish sample: Provide 3 samples if requested by architect.
- B. Installation Instructions: Provide manufacturer's written installation and adjustment instructions for finish hardware. Send installation instructions to site with hardware.
- C. Templates: Submit templates and "reviewed Hardware Schedule" to door and frame supplier and others as applicable to enable proper and accurate sizing and locations of cutouts and reinforcing.
- D. Contract Closeout Submittals: Comply with Section 01700 including specific requirements indicated.
 - 1. Operating and maintenance manuals: Submit 3 sets containing the following:
 - a. Complete information in care, maintenance, and adjustment, and data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Name, address, and phone number of local representative for each manufacturer.

- d. Parts list for each product.
- 2. Copy of final approved hardware schedule, edited to reflect "As installed".
- 3. Copy of final keying schedule.
- 4. One complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

1.4 QUALITY ASSURANCE

- A. Manufacturer: Obtain each type of hardware (ie. latch and locksets, hinges, closers) from single manufacturer, although several may be indicated as offering products complying with requirements.
- B. Supplier: Recognized architectural finish hardware supplier, with warehousing facilities, who has been providing hardware for period of not less than 3 years. The supplier shall be, or employ, a certified Architectural Hardware Consultant (AHC), who is registered in the continuing education program as administered by the Door and Hardware Institute. The hardware schedule shall be prepared and signed by a certified AHC.
- C. Installer: Firm with 3 years experience in installation of similar hardware to that required for this project, including specific requirements indicated.
- D. Regulatory Label Requirements: Provide nationally recognized testing agency label or stamp on hardware for labeled openings. Where UL requirements conflict with drawings or specifications, hardware conforming to UL requirements shall be provided. Conflicts and proposed substitutions shall be clearly indicated in hardware schedule.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver hardware to jobsite in manufacturer's original packaging, marked to correspond with approved hardware schedule. Do not deliver hardware until suitable locked storage space is available. Check hardware against reviewed hardware schedule. Store hardware to protect against loss, theft or damage.
- B. Deliver hardware required to be installed during fabrication of hollow metal, aluminum, wood, or stainless steel doors prepaid to manufacturer.

1.6 WARRANTY

- A. Guarantee workmanship and material provided against defective manufacture. Repair or replace defective workmanship and material appearing within period of one year after Substantial Completion.
- B. Replace shortages and incorrect items with correct material at no additional cost to Owner.
- C. At completion of project, qualified factory representative shall inspect closer installations. After this inspection, letter shall be sent to Architect reporting on conditions, verifying that closers have been properly installed and adjusted.

PART 2 PRODUCTS

2.1 BED/BATH PRIVACY LOCKS

- A. Acceptable Manufacturers:

Schlage
F10 ACC 613 – OIL RUBBED BRONZE

2.2 WALL STOPS AND HOLDERS

A. Acceptable Manufacturers and Types:

Liberty
B59650G-FB-U
FLAT BLACK

B. Provide hinge pin wall stop for each door leaf.

2.3 TYPICAL FINISHES AND MATERIALS

A. Finishes, unless otherwise specified:

1. Butts: Interior Doors
 - a. Oil rubbed bronze
2. Overhead Stops and Holders:
 - a. Oil rubbed bronze
3. Miscellaneous Hardware:
 - a. Oil rubbed bronze

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine doors, frames, and related items for conditions that would prevent the proper application of finish hardware. Do not proceed until defects are corrected.

3.2 INSTALLATION

- A. Install finish hardware in accordance with reviewed hardware schedule and manufacturer's printed instructions. Prefit hardware before finish is applied, remove and reinstall after finish is completed. Install hardware so that parts operate smoothly, close tightly and do not rattle.
- B. Installation of hardware shall comply with NFPA 80 and NFPA 101 requirements.
- C. Set units level, plumb and true to line and location. Adjust and reinforce attachment to substrate as necessary for proper installation and operation.
- D. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

3.3 FIELD QUALITY CONTROL

- A. After installation has been completed, provide services of qualified hardware consultant to check Project to determine proper application of finish hardware according to schedule. Also check operation and adjustment of hardware items.
- B. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

3.4 ADJUSTING AND CLEANING

- A. At final completion, hardware shall be left clean and free from disfigurement. Make final adjustment to door closers and other items of hardware. Where hardware is found defective repair or replace or otherwise correct as directed.
- B. Adjust door closers to meet opening force requirements of Uniform Federal Accessibility Standards.

- C. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of space or area, return to work during week prior to acceptance or occupancy, and make final check and adjustment of hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors.
- D. Instruct Owner's personnel in proper adjustment and maintenance of door hardware and hardware finishes.
- E. Clean adjacent surfaces soiled by hardware installation.

3.5 PROTECTION

- A. Provide for proper protection of items of hardware until Owner accepts Project as complete.

3.6 HARDWARE GROUPS

- A. The following schedule of hardware groups shall be considered a guide only, and the supplier is cautioned to refer to general conditions, special conditions, and the preamble to this section. It shall be the hardware supplier's responsibility to furnish all required hardware.
- B. Refer to the door schedule for hardware group required at each door opening. Ignore hardware groups not used on the door schedule.

END OF SECTION

SECTION 09290 - GYPSUM BOARD

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Glass-mat faced, moisture resistant gypsum board.
- B. Related Sections:
 - 1. Section 06 10 00 Rough Carpentry.
 - 2. Section 09 21 16 Gypsum Board Assemblies.
 - 3. Section 09 22 00 Supports for Plaster and Gypsum Board.

1.02 REFERENCES

- A. ASTM International (ASTM):
 - 1. ASTM C473 Standard Test Methods for Physical Testing of Gypsum Panel Products.
 - 2. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
 - 3. ASTM C630 Standard Specification for Water-Resistant Gypsum Backing Board.
 - 4. ASTM C840 Standard Specification for Application and Finishing of Gypsum Board.
 - 5. ASTM C1396 Standard Specification for Gypsum Board.
 - 6. ASTM C1658 Standard Specification for Glass Mat Gypsum Panels.
 - 7. ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
 - 8. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. Gypsum Association (GA): GA-214 Recommended Levels of Gypsum Board Finish.

1.03 SUBMITTALS

- A. Product Data: Manufacturer's specifications and installation instructions for each product specified.

1.04 QUALITY ASSURANCE

- A. Regulatory Requirements: Provide products that comply with the following limits for surface burning characteristics when tested per ASTM E84:
 - 1. Flame spread: 25, maximum.
 - 2. Smoke developed: 450, maximum.

- B. Provide products that have been GREENGUARD Indoor Air Quality Certified by the GREENGUARD Environmental Institute under the GREENGUARD Standard for Low Emitting Products and GREENGUARD for Children & Schools product certification program.

1.05 WARRANTY

- A. Provide products that offer six months of coverage against in-place exposure damage (delamination, deterioration and decay).
- B. Manufacturer's Warranty: Three years against manufacturing defects.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Georgia-Pacific Gypsum LLC:
 - 1. Fiberglass-Mat Faced Gypsum Board: DensArmor Plus.

2.02 MATERIALS

- A. Fiberglass-Mat Faced Gypsum Board:
 - 1. Thickness: 1/2 inch.
 - 2. Width: 4 feet.
 - 3. Length: 8 feet.
 - 4. Weight: 2020 pounds per M square feet.
 - 5. Edges: Tapered.
 - 6. Surfacing: Coated fiberglass mat on face, back, and long edges.
 - 7. Flexural Strength, Parallel (ASTM C473, ASTM C1658): Not less than 80 lbf.
 - 8. Flexural Strength, Perpendicular (ASTM C473, ASTM C1658): Not less than 100 lbf.
 - 9. R-Value (ASTM C518): Not less than 0.56.
 - 10. Nail Pull Resistance (ASTM C473, ASTM C1658): Not less than 80 lbf.
 - 11. Humidified Deflection (ASTM C473, ASTM C1658): Not more than 1/4 inch.
 - 12. Hardness, Core, Edges, and Ends (ASTM C473, ASTM C1396): Not less than 15.
 - 13. Water Absorption (ASTM C630, ASTM C1396, ASTM C1658): Less than 5 percent of weight.
 - 14. Mold Resistance (ASTM D3273): 10, in a test as manufactured.
 - 15. Acceptable Products:
 - a. 1/2 inch DensArmor Plus Interior Guard, Georgia-Pacific Gypsum.

PART 3 EXECUTION

3.01 INSTALLATION

- A. General: In accordance with ASTM C840 and the manufacturer's recommendations.
 - 1. Manufacturer's Recommendations:
 - a. Current "Product Catalog", Georgia-Pacific Gypsum. Utilize BOTH mechanical and adhesive fastening techniques. (screw and glue).

3.02 APPLICATION

- A. Primer and Paint Application:
 - 1. Use a high quality, high build drywall primer/surfacer. Comply with application instructions of the primer manufacturer as stated on the container.
 - 2. Apply high build primer at a sufficient wet film thickness to ensure a dry film thickness that will produce acceptable results.
 - 3. Apply finish coats of paint per the paint manufacturer's label instructions.

3.03 FINISHING

Provide Finish Level 5 coating (skim coat) on all wallboard.

- A. Care shall be taken to ensure that all tools and containers are kept clean and free from foreign materials. Only potable water shall be used for mixing powder compounds or to thin premixed materials. Once setting materials have been mixed, no additional water shall be added. Compounds shall not be allowed to freeze.
- B. Approved protective respirators shall be worn when mixing powder or when sanding. Mixing shall be done according to manufacturer's directions. Mixer speeds shall not exceed those specified by joint compound manufacturer.
- C. When applied, joint compounds shall be compatible with previous coats.
- D. Adequate and continuous ventilation shall be provided to ensure proper drying, setting, or curing of taping and finishing compounds.
- E. Non-setting type compounds shall be allowed to dry thoroughly (see Table 1 in Joint Treatment Under Extreme Weather Conditions, GA-236) before sanding or the application of additional coats.
- F. Setting type compounds shall be permitted to receive additional coats as soon as material has set and before it dries completely.
- G. Gypsum panel products shall be kept free of dirt, oil, or other foreign matter that causes a lack of bond of joint compound. All dents or gouges shall be filled. Mechanical fasteners shall be set

below the plane of panel product. All joints shall be even and true. Panels shall be tight against framing members.

- H. Taping and finishing shall be done using the hand tools designed for this purpose, such as broad knives or trowels with straight and true edges, or mechanical tools designed for this purpose.
- I. Tape shall be applied either by applying compound to the joint (buttering), pressing in the tape, and wiping off the excess compound, or by mechanical tools designed for this purpose.
- J. The second coat shall be applied with tools of sufficient width to extend approximately 3 ½ in. (90 mm) beyond the center of the joint center. Compound shall be drawn down to a smooth even plane.
- K. After drying or setting, treated surfaces shall be sanded or otherwise smoothed as needed (See Section 19.1.1.1) to eliminate high spots or excess compound. When sanding the joints, care shall be taken not to raise the nap of the gypsum board paper.
- L. Where a third coat is specified, it shall be applied with tools that will permit feathering of the joint treatment edges approximately 6 in. (150 mm) from the center of the joint.
- M. After drying, the final coat shall be lightly sanded (See Section 19.1.1.1) with 120 grit or finer sandpaper or wiped with a damp sponge to leave a smooth even surface covering the joint. When sanding the joints, care shall be taken not to raise the nap of the gypsum board paper.
- N. Fastener heads shall be covered with three coats, each applied in a different direction. Each coat shall be allowed to dry or set before subsequent coats are applied.
- O. All cut-outs shall be back-filled with the compound used for taping or finishing so there is no opening larger than 1/4 in. (6 mm) between the gypsum panel product and the penetrating element.
- P. All cut edges and openings around pipes and fixtures shall be caulked flush with water-resistant flexible sealant.
- Q. All levels of finish shall be applied as specified by the designer appropriate to the final decoration. See Recommended Levels of Gypsum Board Finish, GA-214.
- R. A good quality drywall primer shall be applied prior to decoration.
- S. Finish Level 4: All joints and interior angles have tape embedded in joint compound and two separate coats of joint compound applied over all flat joints and one separate coat of joint compound applied over interior angles. Fastener heads and accessories shall be covered with three separate coats of joint compound. All joint compound shall be smooth and free from tool marks and ridges." Before final decoration it is recommended that the prepared surface be coated with a drywall primer prior to the application of final finishes. Gloss, semi-gloss and enamel paints are not recommended over a Level 4 finish.
- T. Finish Level 5: Requires all the operations in Level 4. Additionally, a thin skim coat of joint compound, or material manufactured especially for this purpose, is applied to the entire surface. The surface is smooth and free from tool marks and ridges. Before final decoration it's recommended that the prepared surface be coated with a primer prior to the application of final

finishes. The Level 5 finish is required to achieve the highest degree of quality by providing a uniform surface and minimizing the possibility of joint photographing and/or fasteners "burning through" the final decoration.

3.04 PROTECTION

- A. Protect gypsum board installations from damage and deterioration until the date of Substantial Completion.

END OF SECTION

SECTION 09300 – CERAMIC TILING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Glazed Wall Tile.
- B. Ceramic accessories.
- C. Ceramic trim.

1.2 RELATED SECTIONS

- A. Section 03505 - Self-Leveling Underlayment.
- B. Section 07920 - Joint Sealant.

1.3 REFERENCES

- A. ANSI A108.1B, 1999 - Installation of ceramic tile on a cured portland cement mortar setting bed with dry-set or latex portland cement mortar.
- B. ANSI A108.4, 1999 - Specifications for Ceramic Tile Installed with Organic Adhesives or Water-Cleanable Tile Setting Epoxy Adhesive.
- C. ANSI A108.5, 1999 - Specifications for Ceramic Tile Installed with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar.
- D. ANSI A108.6, 1999 - Specifications for Ceramic Tile Installed with Chemical-Resistant, Water-Cleanable Tile-Setting and -Grouting Epoxy.
- E. ANSI A108.9, 1999 - Specifications for Ceramic Tile Installed with Modified Epoxy Emulsion Mortar/Grout.
- F. ANSI A108.10, 1999 - Specifications for Installation of Grout in Tilework.
- G. ANSI A118.4, 1999 - Latex-Portland Cement Mortar.
- H. ANSI A118.7, 1999 - Polymer Modified Cement Grouts
- I. ANSI A118.9, 1999 - Test Methods and Specifications for Cementitious Backer Units
- J. ANSI A118.10, 1999 - Load bearing, Bonded, Waterproof Membranes for Thinset Ceramic Tile and Dimensional Stone.
- K. ANSI A118.11, 1999 - Exterior Grade Plywood (EGP) Latex-Portland Cement Mortar.
- L. ANSI A136.1, 1999 - Organic Adhesives for Installation of Ceramic Tile.
- M. ANSI A137.1, 1988 - Specifications for Ceramic Tile.
- N. ASTM C50 - Standard Specification for Portland Cement.
- O. ASTM C1028 - Test method for Determining the Static Coefficient of Friction or Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull meter Method.
- P. ASTM D4397 - Specification for Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications.

Q. TCA (HB) - Handbook for Ceramic Tile Installation; Tile Council of America, Inc.

1.4 PERFORMANCE REQUIREMENTS

- A. Static Coefficient of Friction: Tile on walkway surfaces shall be provided with the following values as determined by testing in conformance with ASTM C 1028.
1. Level Surfaces: Minimum of 0.6 (Wet).
 2. Step Treads: Minimum of 0.6 (Wet).
 3. Ramp Surfaces: Minimum of 0.8 (Wet).

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation methods.
- C. Shop Drawings: Indicate tile layout, patterns, color arrangement, perimeter conditions, junctions with dissimilar materials, control and expansion joints, thresholds, ceramic accessories, and setting details.
- D. Samples: Mount tile and apply grout on two plywood panels, 24 by 24 inch in size illustrating pattern, color variations, and grout joint size variations.
- E. Manufacturer's Certificate:
1. Certify that products meet or exceed specified requirements.
 2. For each shipment, type and composition of tile provide a Master Grade Certificate signed by the manufacturer and the installer certifying that products meet or exceed the specified requirements of ANSI A137.1.
- F. Maintenance Data: Include recommended cleaning methods, cleaning materials, stain removal methods, and polishes and waxes.

1.6 QUALITY ASSURANCE

- A. Maintain one copy each of all Referenced standards and specifications on site. Include the TCA Handbook, ANSI A108 Series, ANSI A118 Series ANSI A136.1 and ANSI A137.1 and others as specified under paragraph References.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum 10 years experience.
- C. Single Source Responsibility:
1. Obtain each type and color of tile from a single source.
 2. Obtain each type and color of mortar, adhesive and grout from the same source.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store products in manufacturer's unopened packaging until ready for installation.
- B. Protect adhesives and liquid additives from freezing or overheating in accordance with manufacturer's instructions.
- C. Store tile and setting materials on elevated platforms, under cover and in a dry location and protect from contamination, dampness, freezing or overheating.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Do not install adhesives in an unventilated environment.
- B. Maintain ambient and substrate temperature of 50 degrees F (10 degrees C) during installation of mortar materials.

1.9 EXTRA MATERIALS

- A. Provide 5 sq ft of each size, color, and surface finish of tile specified.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: DalTile Corporation, which is located at: 7834 C.F. Hawn Fwy. P. O. Box 170130 ; Dallas, TX 75217; Toll Free Tel: 800-933-TILE; Tel: 214-398-1411; Email: [request info \(mari.anne.wohlfeil@daltile.com\)](mailto:mari.anne.wohlfeil@daltile.com); Web: www.daltileproducts.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 TILE

- A. General: Provide tile that complies with ANSI A137.1 for types, compositions and other characteristics indicated. Provide tile in the locations and of the types colors and pattern indicated on the Drawings and identified in the Schedule and the end of this Section. Tile shall also be provided in accordance with the following:
 - 1. Factory Blending: For tile exhibiting color variations within the ranges selected under Submittal of samples, blend tile in the factory and package so tile taken from one package shows the same range of colors as those taken from other packages.
 - 2. Mounting: For factory mounted tile, provide back or edge mounted tile assemblies as standard with the manufacturer, unless otherwise specified.
 - 3. Factory Applied Temporary Protective Coatings: Where indicated under tile type, protect exposed surfaces of tile against adherence of mortar and grout by precoating with a continuous film of petroleum paraffin wax applied hot. Do not coat unexposed tile surfaces.
- B. Glazed Wall Tile: ANSI A137.1, and as follows:
 - 1. Product: Daltile Semi-Gloss, white 0100
 - 2. Moisture Absorption: Less than 20.0 percent.
 - 3. Size and Shape: 4-1/4 inch (108 mm) square, nominal.
 - 4. Edges: Cushioned.
 - 5. Surface Finish: Semi-gloss.
 - 6. Colors: As scheduled.
 - 7. Trim Units: Matching bead, bullnose (S-4449), cove (A3401), cove corner (SCR-L-3401), bullnose corner (SCR-L-4449) and base shapes in sizes coordinated with field tile.

2.3 TRIM AND ACCESSORIES

- A. Ceramic Accessories: Glazed finish, same color and finish as adjacent field tile; same manufacturer as tile.
 - 1. Soap Dish: With wash cloth holder, clam shell design, surface mounted or recessed; cast strength sufficient to resist lateral pull force of 75 lbs (34 Kg).
 - 2. Toilet Tissue Holder: Surface mounted or recessed, for single roll, with spring loaded holder.

- B. Non-Ceramic Trim: Satin natural anodized extruded aluminum, stainless steel, brass, etc, style and dimensions to suit application, for setting using tile mortar or adhesive; use in the following locations:
 - 1. Transition between floor finishes of different heights.
 - 2. Thresholds at door openings.

2.4 SETTING MATERIALS

- A. See section 09305 Tile Adhesives, Mortars and Grouts

2.5 EXAMINATION

- A. Verify that wall surfaces are free of substances which would impair bonding of setting materials, smooth and flat within tolerances specified in ANSI A137.1, and are ready to receive tile.
- B. Verify that sub-floor surfaces are dust-free, and free of substances which would impair bonding of setting materials to sub-floor surfaces, and are smooth and flat within tolerances specified in ANSI A137.1.
- C. Verify that concrete sub-floor surfaces are ready for tile installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by tile manufacturer and setting materials manufacturer.
- D. Verify that required floor-mounted utilities are in correct location.

2.6 PREPARATION

- A. Protect surrounding work from damage.
- B. Remove any curing compounds or other contaminants.
- C. Vacuum clean surfaces and damp clean.
- D. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.
- E. Install cementitious backer board in accordance with ANSI A108.11 and board manufacturer's instructions. Tape joints and corners, cover with skim coat of dry-set mortar to a feather edge.
- F. Prepare substrate surfaces for adhesive installation in accordance with adhesive manufacturer's instructions.

2.7 INSTALLATION - GENERAL

- A. Install tile and grout in accordance with applicable requirements of ANSI A108.1 through A108.13, manufacturer's instructions, and TCA Handbook recommendations.
- B. Lay tile to pattern indicated. Arrange pattern so that a full tile or joint is centered on each wall and that no tile less than 1/2 width is used. Do not interrupt tile pattern through openings.
- C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.
- D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make joints watertight, without voids, cracks, excess mortar, or excess grout.

- E. Form internal angles square and external angles bullnosed.
- F. Install ceramic accessories rigidly in prepared openings.
- G. Install non-ceramic trim in accordance with manufacturer's instructions.
- H. Install thresholds where indicated.
- I. Sound tile after setting. Replace hollow sounding units.
- J. Keep expansion joints free of adhesive or grout. Apply sealant to joints.
- K. Allow tile to set for a minimum of 48 hours prior to grouting.
- L. Grout tile joints. Use standard grout unless otherwise indicated.
- M. Apply sealant to junction of tile and dissimilar materials and junction of dissimilar planes.

2.8 INSTALLATION - FLOORS - THIN-SET METHODS

- A. Over wood substrates, install in accordance with TCA Handbook Method F142, with standard grout, unless otherwise indicated.
 - 1. Where epoxy bond coat and grout are indicated, install in accordance with TCA Handbook Method F143.

2.9 INSTALLATION - FLOORS - MORTAR BED METHODS

- A. Over exterior concrete substrates, install in accordance with TCA F101, bonded, with standard grout.
- B. Over wood substrates, install in accordance with TCA Handbook method F141, with standard grout, unless otherwise indicated.
- C. Cleavage Membrane: Lap edges and ends.
- D. Waterproofing Membrane: Install as specified in ANSI A108.13.
- E. Mortar Bed Thickness: 1-1/4 to 2 inch (32 to 51 mm) maximum, unless otherwise indicated.

2.10 INSTALLATION - SHOWERS AND BATHTUB WALLS

- A. At tiled shower receptors install in accordance with TCA Handbook Method B415, mortar bed floor, and W244, thin-set over cementitious backer unit walls.
- B. At bathtub walls install in accordance with TCA Handbook Method B412, over cementitious backer units with waterproofing membrane.
- C. Grout with standard grout as specified above.
- D. Seal joints between tile work and other work with sealant specified in Section 07900.

2.11 INSTALLATION - WALL TILE

- A. Over cementitious backer units on studs, install in accordance with TCA Handbook Method W244, using membrane at toilet rooms.
- B. Over cementitious backer units install in accordance with TCA Handbook Method W223, organic adhesive.

- C. Over gypsum wallboard on wood or metal studs install in accordance with TCA Handbook Method W243, thin-set with dry-set or latex-portland cement bond coat, unless otherwise indicated.
 - 1. Where mortar bed is indicated, install in accordance with TCA Handbook Method W222, one coat method.
 - 2. Where waterproofing membrane is indicated other than at showers and bathtub walls, install in accordance with TCA Handbook Method W222, one coat method.

2.12 CLEANING

- A. Clean tile and grout surfaces.

2.13 PROTECTION OF FINISHED WORK

- A. Do not permit traffic over finished floor surface for 72 hours after installation.
- B. Cover floors with kraft paper and protect from dirt and residue from other trades.
- C. Where floor will be exposed for prolonged periods cover with plywood or other similar type walkways

2.14 SCHEDULE

- A. See Finish Schedule

END OF SECTION

SECTION 093019 – PAVER TILING

PART 1 – GENERAL

1.1 SUMMARY

1.2 SECTION INCLUDES

- A. Porcelain tile

1.3 RELATED SECTIONS

- A. Section 06 10 00 - Rough Carpentry: plywood subfloor and underlayment
- B. Section 09 28 13 - Gypsum Board: gypsum board and tile backer boards
- C. Section 07 90 00 - Joint Sealers

1.4 REFERENCE STANDARDS

- A. American National Standards Institute (ANSI) A137.1 American National Standard Specifications For Ceramic Tile – Current Edition

1.5 SUBMITTALS

- A. Submit samples of each type/style/finish/size/color of ceramic tile, mosaic, paver, trim unit or threshold under provisions of Section (01300.) (01340.)
- B. Submit manufacturers' installation instructions under provisions of Section (01300.) (01340.)
- C. Submit manufacturer's certification under provisions of Section (01405) that the materials supplied conform to ANSI A137.1.
- D. Submit proof of warranty.

1.6 QUALITY ASSURANCE

- A. Tile Manufacturer: Company or Affiliate Company specializing in Ceramic tile, mosaics, pavers, trim units and/or thresholds with five (5) years minimum experience. Obtain tile from a single source with resources to provide products of consistent quality in appearance and physical properties.

1.7 MOCK-UPS

- A. Provide mock-up of each type/style/finish/size/color of ceramic tile, mosaics, pavers, trim unit and threshold, along with respective installation adhesives, mortars, grouts and other installation materials, under provisions of Section (01400) (01405).

1.8 DELIVERY, STORAGE AND HANDLING

- A. Acceptance at Site: deliver and store packaged materials in original containers with seals unbroken and labels, including grade seal, intact until time of use, in accordance with manufacturer's instructions.
- B. Store porcelain tile and installation system materials in a dry location; handle in a manner to prevent chipping, breakage, and contamination.

1.9 WARRANTY

- A. Manufacturer's Warranty: One year against manufacturing defects.

1.10 MAINTENANCE

Submit maintenance data under provisions of Section 01730. Include cleaning methods, cleaning solutions recommended, stain removal methods, as well as polishes and waxes recommended.

1.11 EXTRA MATERIALS STOCK

Upon completion of the work of this Section, deliver to the owner 2% minimum additional tile and trim shape of each type, color, pattern and size used in the work, as well as extra stock of adhesives, mortars, grouts and other installation materials for the owner's use in replacement and maintenance. Extra stock to be from same production run or batch as original tile and installation materials.

PART 2 – PRODUCTS

2.1 TILE MANUFACTURERS

Subject to compliance with paragraphs 1.12 and performance requirements, provide products by one of the following manufacturers: Name: StonePeak Ceramics Address: 314 West Superior – Chicago, IL 60610, Office: 312-506-2800; Fax: 312-335-0533; Email: info@stonepeakceramics.com Website: www.stonepeakceramics.com

2.2 FLOOR TILING MATERIALS

Tile # PT – 01 - Floors

- A. Tile/Collection: Limestone
- B. Color: Gray
- C. Size: as per finish schedule
- D. Finish: Honed
- E. Rectified: Yes
- F. Product Number: 100
- H. Pattern/Tile Schedule – see drawings

PART 3 – EXECUTION

3.1 SUBSTRATE EXAMINATION

- A. Verify that surfaces to be covered with ceramic tile, mosaics, pavers, brick, stone, trim or waterproofing are:
 - 1. Sound, rigid and conform to good design/engineering practices;
 - 2. With maximum deflection under all live, dead and impact loads, including concentrated loads, of L/360 for ceramic tile, mosaics, pavers or brick;
 - 3. Clean and free of dust, dirt, oil, grease, sealers, curing compounds, laitance, efflorescence, form oil or loose plaster, paint and scale;
 - 4. Not leveled with gypsum or asphalt based compounds;
 - 5. In accordance with ANSI 108.01 – Subsurfaces and Preparation by Other trades.

3.2 INSTALLATION – TILE, BRICK & STONE

- A. **General:** Install in accordance with current versions of American National Standards Institute, Inc. (ANSI) "A108 American National Standard for Installation of Ceramic Tile" and TCA "Handbook for Ceramic Tile Installation both to be the most current version."
Cut and fit ceramic tile, brick or stone neatly around corners, fittings, and obstructions. Perimeter pieces to be minimum half tile, brick or stone. Chipped, cracked, split pieces and edges are not acceptable. Make joints even, straight, plumb and of uniform width to tolerance +/- 1/16" over 8' (1.5mm in 2.4m). Install threshold at junction of flooring and dissimilar materials.

3.3 CLEANING

Clean excess mortar/epoxy from veneer surfaces with water before they harden and as work progresses. Do not contaminate open grout/caulk joints while cleaning. Sponge and wash veneers diagonally across joints. Do not use acids for cleaning. Polish with clean dry cloth. Remove surplus materials and leave premises broom clean.

Follow manufacturer's recommendation for protection during installation and grouting as well as recommendations for routine and heavy duty maintenance of porcelain tiles.

3.4 PROTECTION

A. Protect tile installations from damage and deterioration until the date of Substantial Completion.

PART 4 – HEALTH AND SAFETY

The use of personal protection such as rubber gloves, suitable dust masks, safety glasses and industrial clothing is highly recommended. Discarded packaging, product wash and waste water should be disposed of as per local, state or federal regulations.

END OF SECTION

SECTION 09305 - TILE ADHESIVES, MORTARS AND GROUTS

SEE CUT SHEETS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Surface Preparation Products: Backerboards, Self-Leveling Underlayments, Waterproofing and Anti-Fracture Membranes, Sound Reduction Mat Underlayments.
- B. Setting Materials: Architecturally Engineered Mortar Systems, Thin-Set Mortars, Specialty Mortars, Ceramic Tile Adhesives.
- C. Colored Tile Grouts - Sanded, Non-Sanded and Epoxy Grouts.
- D. Tile & Stone Care and Maintenance Products.

1.2 RELATED SECTIONS

- A. Section 07120 - Fluid applied waterproofing.
- B. Section 07900 - Expansion and control joints.
- C. Section 09200 - Scratch coat for ceramic wall tile.
- D. Section 09250 - Gypsum Board System.
- E. Section 09300 - Tile.
- F. Section 10805 - Toilet accessories.

1.3 REFERENCES

- A. ANSI A108.01 - General Requirements: Surfaces and Preparations by Other Trades.
- B. ANSI A108.02 - General Requirements: Materials, Environmental, & Workmanship.
- C. ANSI A108.1A - Installation of ceramic tile in the wet-set method, with portland cement mortar.
- D. ANSI A108.1B - Installation of ceramic tile on a cured portland cement mortar setting bed with dry-set or latex-portland cement mortar.
- E. ANSI A108.4 - Installation of Ceramic Tile with Organic Adhesives or Water-Cleanable Epoxy Adhesive.
- F. ANSI A108.8 - Installation of ceramic tile with chemical-resistant furan resin mortar and grout.
- G. ANSI A108.9: - Installation of ceramic tile with modified epoxy emulsion mortar/grout.
- H. ANSI A108.10 - Installation of Grout in Tile Work.
- I. ANSI A108.11 - Installation of Cementitious Backer Units.
- J. ANSI A108.12 - Installation of ceramic tile with EGP (exterior glue plywood) latex-portland cement mortar.

- K. ANSI A108.13 - Installation of Waterproof Membranes for Thin-Set Tile and Stone.
- L. ANSI A118.4 - Latex Portland Cement Mortar.
- M. ANSI A118.7 - Polymer Modified Cement Grout.
- N. ANSI A118.9: Cementitious Backer Units.
- O. ANSI A118.10 - Waterproof membranes for Thin-Set Tile and Stone.
- P. ANSI A118.11 - EGP (Exterior Glue Plywood) latex-Portland cement mortar.
- Q. ANSI A118.12 – Crack Isolation Membranes.
- R. TCA - Handbook for Ceramic Tile Installation.
- S. U.S. Product Standard PS 1-83 for Construction and Industrial Plywood.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. [: Manufacturer's data sheets on each product to be used, including:
 1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation methods.
- C. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products of this section with minimum ten years documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum five years documented experience.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 1. Locate mock-ups on site in locations and size directed by Architect.
 2. Finish areas designated by Architect.
 3. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 4. Refinish mock-up area as required to produce acceptable work.
 5. Retain and maintain mock-ups during construction in undisturbed condition as a standard for judging completed unit of Work.
 6. Obtain Architect's acceptance of mock-ups before start of final unit of Work.
- D. Conduct conference at Project site to comply with requirements of Division 1 Section "Project Meetings."

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements of ANSI A137.1 for labeling sealed tile packages.

- B. Prevent damage or contamination to materials by water, freezing, foreign matter and other causes.
- C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Environmental: Install mortar, set and grout tile when surfaces and ambient temperature is minimum 50 degrees F (10 degrees C) and maximum 90 degrees F (32 degrees C). Consult with manufacturer for specific requirements.
- C. Do not install mortar, set or grout tile exterior when inclement weather conditions are expected within 48 hours after work is completed unless properly protected.
- D. Protection: Protect adjacent work surfaces during tile work. Close rooms or spaces to traffic of all types until mortar and grout has set.
- E. Safety: Observe the manufacturer's safety instructions including those pertaining to ventilation.

1.8 WARRANTY

- A. Products shall be provided with the manufacturers standard warranty as follows:
 - 1. Installation Systems Limited Warranty of one year.

1.9 EXTRA MATERIALS

- A. Supply an amount equal to 3 percent of each size, color, and surface finish of tile specified.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Custom® Building Products, which is located at: 13001 Seal Beach Blvd. ; Seal Beach, CA 90740; Toll Free Tel: 800-282-8786; Email: [request info \(jackiel@cbpmail.net\)](mailto:requestinfo@jackiel@cbpmail.net); Web: www.custombuildingproducts.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 MATERIALS

- A. Waterproofing and Anti-Fracture Membrane: Where indicated on the drawings, and elsewhere as required for thin-set tile installations complying with ANSI 118.10 for waterproof membranes.
 - 1. Custom Building Products RedGard Waterproofing and Crack Prevention Membrane.
- B. Moisture Barrier System: Where indicated on the drawings and elsewhere as required for thin-set tile installations.
 - 1. RedGard Waterproofing and Crack Prevention Membrane. See moisture barrier installation instructions for RedGard.
- C. Mortar Bed Installations: Where indicated on the drawings, and elsewhere as required for

mortar bed or brown coat as the substrate for tile work; work to conform to ANSI A108.1.

1. Custom Building Products CustomFloat Bedding Mortar mixed with 1/2 water and 1/2 Thin-Set Mortar Admix.
- D. Cementitious Backer Units: ANSI A118.9 Where indicated on the drawings, and elsewhere as required for floors and walls, interior and/or exterior, wet areas, and dry as recommended substrate for tile, fire rated wall installations, heat shield with UL listing for floors and walls; installation to comply with ANSI A108.11 and manufacturer's installation instructions.
1. 1/2 inch (12 mm) WonderBoard Backerboard (Exterior or Interior Floors, Walls, Ceilings, Countertops).
- E. Cementitious Tile Adhesives:
1. ANSI A118.4: Polymer-Enhanced Mortars:
 - a. Custom Building Products VersaBond Fortified Thin-Set Mortar.
- F. Grout: Where indicated on the drawings, and elsewhere as required for filling the joints between tiles.
1. Polymer-Modified Portland Cement Grout:
 - a. Custom Building Products Prism SureColor Tile Grout, ANSI A118.7 for joints 1/8 inch (3 mm) to 1/2 inch (13 mm).
- G. Elastomeric Joint Caulk: ANSI A108.01.3.7 Where indicated on the drawings, and elsewhere as required provide:
1. All joints between floors and walls and at joints between tile and dissimilar materials.
- H. Penetrating Sealer: For all grout joints.
1. Water based Aqua Mix by Custom Building Products

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces, which are to receive tile.
- B. Do not proceed with work until defects or conditions which would adversely affect quality, execution and permanence of finished tile work are corrected (ANSI A108.3).
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Condition of surface to receive tile.
 1. Assure that surfaces to receive tile are stable, flat, firm, dry, clean and free of oil, waxes and curing compounds.
 2. Deflection of substrate not to exceed 1/360th of the span 1/2 inch (12 mm) in 15 feet (4.6 m) in accordance with ANSI A108.01-2.3. Allow for live and impact load as well as dead load weight of tile and setting bed.
 3. Protect adjacent surfaces prior to beginning tile work.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.

B. Surface Preparation for Tile and Stone Work.

1. General:

- a. All supporting surfaces shall be structurally sound, solid, stable, level, plumb, and true to a tolerance in plane of 1/4 inch (6 mm) in 10 feet 0 inch (3 m) for walls, 1/4 inch (6 mm) in 10 feet (3 m) for floors when specified for thin-set method. They shall be clean and free of dust, oil, grease paint, tar, wax, curing compound, primer, sealer, form release agent, laitance, loosely bonded topping, loose particles or any deleterious substance and debris which may prevent or reduce adhesion.
- b. Mechanically sand and scarify the substrate to completely remove all paint, loosely bonded topping, loose particles and construction debris.
- c. Neutralize any trace of strong acid or alkali.
- d. All substrates shall be dry. The moisture content shall not exceed 50 percent.
- e. Turn off all forced ventilation and radiant heating systems and protect work against drafts during installation and for a period of at least 72 hours after completion. Use indirect auxiliary heaters to maintain the temperatures in the area at the recommended workable level. Vent temporary heater to exterior to prevent damage to tile work from carbon dioxide build-up.
- f. Presswood, particleboard, chipboard, masonite, gypsum floor patching compounds, asbestos board, Luan and similar dimensionally unstable materials are not acceptable substrates. Before work commences examine the areas to be covered and report any flaw or adverse condition in writing to the architect and to the general contractor. Do not proceed with work until surfaces and conditions comply with the requirements indicated in ANSI A108 specifications.

2. Backerboard Units Installation of Floors, Decks or Countertops:

- a. General Framing: All framing should comply with local building code requirements and be rigid with a maximum deflection or movement of 1/360 under all intended live (including wind and rain) and dead loads.
- b. Subfloor Requirements: 5/8 inch (16 mm) exterior grade plywood or OSB panels (PRP-108) should be securely glued or fastened to floor joists. Floor joists should be spaced a maximum of 16 inches (40.6 cm) O.C. 3/4 inch (19 mm) exterior grade plywood or OSB subfloor framed with I-joists spaced a maximum of 19.2 inches O.C. (48.7 cm) is also acceptable. I-joists or truss systems spaced a maximum of 24 inches (61 cm) O.C. with a 3/4 inch (19 mm) exterior grade plywood or OSB subfloor is acceptable when 1/2 inch (12 mm) WonderBoard is used as the backerboard. When setting dimensional stone larger than 12 inches by 12 inches (30 cm by 30 cm) a 3/4 inch (19 mm) subfloor must be used for all installations. All plywood or OSB subfloor sheets must be gapped 1/8 inch (3 mm).
- c. Using a 1/4 by 1/4 inch (6 by 6 mm) square-notched trowel, apply a Custom polymer-modified thin-set mortar to the subfloor or base.
- d. Immediately place WonderBoard panels onto fresh mortar. Leave a 1/8 inch (3 mm) gap between boards at all joints and corners. Stagger the joints so they do not line up with underlying substrate joints.
- e. Fasten panels every 6 to 8 inches (152 to 203 mm) on center throughout the field and within 1/2 inch to 2 inches (12.5 to 51 mm) from the edge using 1-1/4 inch (32 mm) concrete backerboard screws or 1-1/2 inch (38 mm) galvanized roofing nails.
- f. Fill all corners and the joints between panels in all installations with polymer-modified thin-set mortar.

3. Wall and Ceiling Installation

- a. Wall and Ceiling: Edges of backerboard parallel to framing should be continuously supported. Studs above a shower floor should be either notched or furred to accommodate the thickness of the waterproof membrane or shower pan. The surround opening for a tub or precast shower receptor should not be more than 1/4 inch (6 mm) longer than unit to be installed. The complete

- ceiling assembly allowable deflection should not exceed 1/360 of the span. Framing members in ceiling should not exceed 16 inches (40.6 cm) O.C.
- b. Backerboard Installation: Fasten backerboard to studs every 6 to 8 inches (152 to 203 mm) on center throughout the panels and within 1/2 inch (12.5 mm) to 2 inches (51 mm) from panel edges using 1-1/4 inches (32 mm) concrete backerboard screws or 1-1/2 inches (38 mm) galvanized roofing nails. Leave a 1/8 inch (6 mm) gap at all joints and corners. Stagger board joints with those of adjacent rows.
 - 1) Where open mesh wrapped edges meet, fill the gap completely with thin-set mortar.
 - 2) On all other joints and corners, prefill the gap with thin-set mortar, then embed 2 inch wide (51 mm) alkali-resistant mesh tape and smooth.
4. Gypsum surfaces:
- a. Gypsum dry wall panels and gypsum plaster walls shall be set with a polymer modified thin-set mortar or mastic.
 - b. Gypsum-based floor patching compounds are not acceptable substrates to receive tiles.
- C. Install tile in accordance with appropriate ANSI A108 specifications and manufacturer's directions.
- D. Expansion joints, control joints, insulation joints, etc., must be located in compliance with TCA EJ171 and filled with appropriate materials.
 - 1. Joints must be carried through all layers of installation materials including tile, setting bed, mortar bed and reinforcing wire. Joints should be every 20 to 25 feet (6.1 to 7.3 m) in both directions for interior installations and 8 to 12 feet (2.4 to 3.6 m) in both directions for exterior installations. (Refer to TCA Handbook, EJ171 and ANSI AN-3.8 for details on placement, size and specifications of materials.) .
- E. Install grout in accordance with Grout ANSI A108.10 specifications and manufacturer's directions.
- F. Proper curing of grout entails periodically misting the installation with clean, cool water for a period of 72 hours.
- G. Seal grout, stone and unglazed tile with an appropriate sealer 48 - 72 hours after grout application.
- 3.4 PROTECTION
- A. Protect installed products until completion of project.
 - B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 093000 - TILING ACCESSORIES

SEE CUT SHEETS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Edge-protection and transition profiles for floors

1.02 RELATED SECTIONS

- D. Section 06 10 00 - Rough Carpentry: plywood subfloor and underlayment
- E. Section 09 28 13 - Gypsum Board: gypsum board and tile backer boards
- F. Section 07 90 00 - Joint Sealers

1.03 REFERENCES

- A. Tile Council of North America (TCNA) Handbook for Ceramic Tile Installation
- B. Terrazzo, Tile and Marble Association of Canada (TTMAC) Specification Guide 09300 Tile Installation Manual
- C. American National Standard Specifications for the installation of ceramic tile A108 / A118 / A136.1

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Schluter Systems, L.P., 194 Pleasant Ridge Road, Plattsburgh, NY 12901-5841. Tel: (800) 472-4588. Fax (800) 477-9783. E-mail: info@schluter.com. Internet: www.schluter.com.

2.02 EDGE-PROTECTION AND TRANSITION PROFILES FOR FLOORS

- A. Schluter®-RENO-T
 1. Description: T-shaped profile with 1/16 inch (1 mm) thick beveled exposed surface and 11/32 inch (9 mm) tall integrated vertical anchoring leg.
 2. Material and Finish:[EB – Brushed Stainless Steel Type 304 = V2A]
 3. Width: 9/16"
- B. Schluter®-RENO-V
 1. Description: ball-and-socket hinged profile with sloped exposed surface, tapered leading edge, integrated trapezoid-perforated anchoring leg, and integrated grout joint spacer.
 2. Material and Finish: AE - Satin Anodized Aluminum. (AEVT 100 B20)
 3. 3/8 inch (10 mm).
 4. Ramp Length: 3/4 inch (20 mm).

PART 3 EXECUTION

3.01 APPLICATION

- A. Consult Schluter®-Systems' current technical literature for proper design and installation instructions at www.schluter.com.

END OF SECTION

SECTION 09910 - PAINT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Interior Primer.
- B. Interior Paint.
- C. Wall Preparation.

1.2 RELATED SECTIONS

- A. Section 06200 - Finish Carpentry: Preparation of wood surfaces to receive finishes.
- B. Section 09200 - Plaster and Gypsum Board: Preparation of interior wall sheathing to receive finishes.

1.3 REFERENCES

- A. Green Seal Standard GS-11; May 20, 1993.
- B. MPI (APL) - Master Painters Institute.
- C. SCAQMD 1168 - South Coast Air Quality Management District Rule #1168; October 3, 2003.
- D. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.

1.4 DEFINITIONS

- A. Paints are available in a wide range of sheens or glosses, as measured by a gloss meter from a 60 degree angle from vertical, as a percentage of the amount of light that is reflected. The following terms are used to describe the gloss of our products.
 - 1. Flat - Less than 5 Percent.
 - 2. Matte - 0 - 10 Percent.
 - 3. Eggshell - 10 - 25 Percent.
 - 4. Satin - 20 - 35 Percent.
 - 5. Semi-Gloss - 35 - 70 Percent.
 - 6. Gloss - 70 - 85 Percent.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide a complete list of all products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category.
 - 2. Cross-reference to specified paint system(s) that the product is to be used in; include description of each system.
- C. Samples: Submit three paper samples, 5 inches by 7 inches (127mm x 178mm) in size, illustrating selected colors for each color and system selected with specified coats cascaded.
- D. Manufacturer's Instructions: Indicate special surface preparation procedures.

- E. Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of ten (10) years experience.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five (5) years demonstrated experience in installing products of the same type and scope as specified.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
- C. Disposal:
 - 1. Never pour leftover coating down any sink or drain. Use up material on the job or seal can and store safely for future use.
 - 2. Do not incinerate closed containers.
 - 3. For specific disposal or recycle guidelines, contact the local waste management agency or district. Recycle whenever possible.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.9 WARRANTY

- A. At project closeout, provide to the Owner or owner's representative an executed copy of the Manufacturer's standard form outlining the terms and conditions of and any exclusions to their Limited Warranty against Manufacturing Defect.

1.10 EXTRA MATERIALS

- A. At project closeout, supply the Owner or owner's representative one gallon of each product for touch-up purposes.
- B. At project closeout, provide the color mixture name and code to the Owner or owner's representative for accurate future color matching.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Benjamin Moore & Co., which is located at: 101 Paragon Dr ;

Montvale, NJ 07645; Toll Free Tel: 866-708-9181; Tel: 201-573-9600; Email: [request info](#);
Web: www.benjaminmoore.com

- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 MATERIALS - GENERAL

- A. Volatile Organic Compound (VOC) Content:
 - 1. Provide coatings that comply with the most stringent requirements specified in the following:
 - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
 - b. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
- B. Compatibility: Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

2.3 MIXING AND TINTING

- A. Except where specifically noted in this section, all paint shall be ready-mixed and pre-tinted. Agitate all paint prior to and during application to ensure uniform color, gloss, and consistency.
- B. Thinner addition shall not exceed manufacturer's printed recommendations. Do not use kerosene or other organic solvents to thin water-based paints.
- C. Where paint is to be sprayed, thin according to manufacturer's current guidelines.

2.4 INTERIOR PRIMERS - NEW CONSTRUCTION

- A. Wood:
 - 1. Latex:
 - a. One (1) Coat - Eco Spec WB Interior Latex Primer Sealer #231.
- B. Gypsum Board, Plaster:
 - 1. Latex:
 - a. One (1) Coat - Eco Spec WB Interior Latex Primer Sealer #231

2.5 INTERIOR FINISH COATS

- A. Eggshell Finish:
 - a. Two (2) Coats - Eco Spec Interior Latex Eggshell Enamel #223 (MPI Listed Product, Category 144).
- B. Satin/Semi-Gloss Finish:
 - 1. Latex:
 - a. Two (2) Coats - Eco Spec Interior Latex Semi - Gloss Enamel #224 (MPI Listed Product, Category 147) w. mildewcide additive.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Ensure that surfaces to receive paint are dry immediately prior to application.
- C. Ensure that moisture-retaining substrates to receive paint have moisture content within tolerances allowed by coating manufacturer. Where exceeding the following values, promptly notify Architect and obtain direction before beginning work.
 - 1. Concrete and Masonry: 13 percent. Allow new concrete to cure a minimum of 28 days.
 - 2. Exterior Wood: 17 percent.
 - 3. Interior Wood: 15 percent.
 - 4. Interior Finish Detail Woodwork, Including Trim, and Casework: 10 percent.
 - 5. Plaster and Gypsum: 15 percent.
 - 6. Concrete Slab-On-Grade: Perform calcium chloride test over 24 hour period or other acceptable test to manufacturer. Verify acceptable moisture transmission and pH levels.
- D. Examine surfaces to receive coatings for surface imperfections and contaminants that could impair performance or appearance of coatings, including but not limited to, loose primer, rust, scale, oil, grease, mildew, algae, or fungus, stains or marks, cracks, indentations, or abrasions.
- E. Correct conditions that could impair performance or appearance of coatings in accordance with specified surface preparation procedures before proceeding with coating application.

3.2 PREPARATION - GENERAL

- A. Clean surfaces thoroughly prior to coating application.
- B. Do not start work until surfaces to be finished are in proper condition to produce finished surfaces of uniform, satisfactory appearance.
- C. Stains and Marks: Remove completely, if possible, using materials and methods recommended by coating manufacturer; cover stains and marks which cannot be completely removed with isolating primer or sealer recommended by coating manufacturer to prevent bleed-through.
- D. Remove Mildew, Algae, and Fungus using materials and methods recommended by coating manufacturer.
- E. Remove dust and loose particulate matter from surfaces to receive coatings immediately prior to coating application.
- F. Remove or protect adjacent hardware, electrical equipment plates, mechanical grilles and louvers, lighting fixture trim, and other items not indicated to receive coatings.
- G. Move or protect equipment and fixtures adjacent to surfaces indicated to receive coatings to allow application of coatings.
- H. Protect adjacent surfaces not indicated to receive coatings.
- I. Prepare surfaces in accordance with manufacturer's instructions for specified coatings and indicated materials, using only methods and materials recommended by coating manufacturer.

3.3 SURFACE PREPARATION

- A. Gypsum Board: Repair cracks, holes and other surface defects with joint compound to

produce surface flush with adjacent surfaces.

- B. Wood:
 - 1. Seal knots, pitch streaks, and sap areas with sealer recommended by coating manufacturer; fill nail recesses and cracks with filler recommended by coating manufacturer; sand surfaces smooth.
 - 2. Apply primer coat to back of wood trim and paneling.
- C. Wood Doors: Seal door tops and bottoms prior to finishing.
- D. Wood Doors - Field-Glazed Frames and Sash: Prime or seal glazing channels prior to glazing.

3.4 APPLICATION - GENERAL

- A. Apply each coat to uniform coating thickness in accordance with manufacturer's instructions, not exceeding manufacturer's specified maximum spread rate for indicated surface; thin, brush marks, roller marks, orange-peel, or other application imperfections are not permitted.
- B. Allow manufacturer's specified drying time, and ensure correct coating adhesion, for each coat before applying next coat.
- C. Inspect each coat before applying next coat; touch-up surface imperfections with coating material, feathering, and sanding if required; touch-up areas to achieve flat, uniform surface without surface defects visible from 5 feet (1.5 m).
- D. Remove dust and other foreign materials from substrate immediately prior to applying each coat.
- E. Where paint application abuts other materials or other coating color, terminate coating with a clean sharp termination line without coating overlap.
- F. Where color changes occur between adjoining spaces, through framed openings that are of same color as adjoining surfaces, change color at outside stop corner nearest to face of closed door.
- G. Re-prepare and re-coat unsatisfactory finishes; refinish entire area to corners or other natural terminations.

3.5 CLEANING

- A. Clean excess coating materials, and coating materials deposited on surfaces not indicated to receive coatings, as construction activities of this section progress; do not allow to dry.
- B. Re-install hardware, electrical equipment plates, mechanical grilles and louvers, lighting fixture trim, and other items that have been removed to protect from contact with coatings.
- C. Reconnect equipment adjacent to surfaces indicated to receive coatings.
- D. Relocate to original position equipment and fixtures that have been moved to allow application of coatings.
- E. Remove protective materials.

3.6 PROTECTION

- A. Protect completed coating applications from damage by subsequent construction activities.
- B. Repair to Architect's acceptance coatings damaged by subsequent construction activities. Where repairs cannot be made to Architect's acceptance, re-apply finish coating to nearest adjacent change of surface plane, in both horizontal and vertical directions.

END OF SECTION

SECTION 09930 - STAINS AND TRANSPARENT FINISHES

PART 10 GENERAL

10.1 SECTION INCLUDES

- A. Wood stains and transparent finishes.
- B. Wood repair products.

10.2 RELATED SECTIONS

- A. Section 06200 - Finish Carpentry: Wood items for transparent finish.
- B. Section 06400 - Architectural Woodwork: Wood items for transparent finish.
- C. Section 09900 - Paints and Coatings: Opaque finishes.

10.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. [Product Data]: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and finishes.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color and finish on wood of type to be finished.

10.4 QUALITY ASSURANCE

- A. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

10.5 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

10.6 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 11 PRODUCTS

11.1 MANUFACTURERS

- A. Acceptable Manufacturer: Minwax®, which is located at: 10 Mountainview Rd. ; Upper Saddle River, NJ 07458-1934; Toll Free Tel: 800-526-0495; Tel: 201-818-7500; Fax: 201-818-7605; Web: www.minwax.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

11.2 MATERIALS - GENERAL REQUIREMENTS

- A. Stains and Coatings - General:
 - 1. Unless otherwise indicated, provide factory-mixed materials. Mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not reduce, thin, or dilute coatings or add materials unless such procedure is specifically described in manufacturer's product instructions.
 - 2. Supply each material in quantity required to complete entire project's work from a single production run.
- B. Back Primer for Transparent-Finished Woodwork:
 - 1. Same as finish coat.
- C. Wood Filler: Use one of the following, as appropriate to repair required:
 - 1. Shallow Nicks and Scratches: Minwax Blend-Fil Pencil.
 - 2. Minor Scratches, Gouges, and Nail Holes: Minwax Wood Putty.
 - 3. Gouges, Holes, Knot Holes, and Damaged Areas: Two-part, Minwax High Performance Wood Filler or Minwax Stainable Wood Filler.
 - 4. To Reinforce Decayed Wood: Minwax High Performance Wood Hardener.
- D. Stain Touch-Up: Minwax Wood Finish Stain Marker.
- E. Shellac, Lacquer, and Varnish Remover: Minwax Antique Furniture Refinisher.
- F. Application Accessories: Provide all primers, sealers, cleaning agents, tools, cleaning cloths, sanding materials, and clean-up materials required.

11.3 INTERIOR FINISH SYSTEMS

- A. Interior Wood - Natural Clear Finish: Including trim, doors, frames and cabinets
 - 1. Satin: 2 coats linseed oil-modified polyurethane; Minwax Fast-Drying Polyurethane.

PART 12 EXECUTION

12.1 EXAMINATION

- A. Do not begin application of coatings until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

12.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

12.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Stir before and during application as recommended by manufacturer.
- C. Do not apply to wet or damp surfaces.
- D. Apply using methods recommended by manufacturer.
- E. Apply without runs, drips, or sags, without brush marks, and with consistent sheen.
- F. Apply at spreading rate required to achieve the manufacturer's recommended film thickness.

12.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 10240 - REGISTERS AND GRILLES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Wall registers.
- B. Floor registers.

1.2 RELATED SECTIONS

- A. Section 05500 - Metal Fabrications.
- B. Section 05700 - Ornamental Metal.
- C. Section 15855 - Diffusers, Registers and Grilles.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Packing, Shipping, Handling and Unloading: Pack products of this Section to prevent damage to products and finishes.
- B. Storage and Protection:
 - 1. Store products in manufacturer's unopened packaging until installation.
 - 2. Maintain dry, heated storage area for products until installation.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Metal Aire , which is located at: 1985 Carrol St. ; Clearwater, FL 33765; Tel: 727-441-2651; Web: www.metalaire.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 PRODUCTS

- A. Wall Grilles:
 - 1. Series 2000: Linear Bar Grille / Register
 - a. Wall Mounting
 - b. 7/32" bars
 - c. 0 degree deflection
 - 2. Fastening: Concealed Friction Spring Clips
 - 3. Material: Extruded Aluminum
 - 4. Finish: Clear Anodized
 - 5. Size: As per construction drawings.
- B. Floor Registers: Provide registers that include grilles and louvers for HVAC supply.
 - 1. Series 2000: Linear Bar Grille / Register
 - a. Floor Mounting
 - b. 7/32" bars
 - c. 0 degree deflection

2. Fastening: Concealed Friction Spring Clips
3. Material: Extruded Aluminum
4. Finish: Clear Anodized

2.3 EXAMINATION

- A. Verification of Conditions:
 1. Verify openings and substrates are prepared to receive products of this Section.
 2. Notify Architect of unsuitable conditions.
 3. Beginning construction activities of this Section indicates installer's acceptance of conditions.

2.4 INSTALLATION

- A. Install in accordance with the manufacturer's recommendations and the approved shop drawings.

2.5 PROTECTION

- A. Protect installed products from damage by subsequent construction activities.
- B. Replace products damaged by subsequent construction activities.

2.6 SCHEDULES

- A. Schedules:

END OF SECTION

SECTION 10810 - TOILET ACCESSORIES SEE CUT SHEETS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Toilet Room, Lavatory, and Shower Accessories.

1.2 RELATED SECTIONS

- A. Section 09260 - Gypsum Board Assemblies.
- B. Section 09300 - Tile.

1.3 REFERENCES

- A. Americans with Disabilities Act Accessibility Guidelines.
- B. ASTM A 240/A 240M - Standard Specification for Heat-Resisting Chromium and Chromium-Nickel Steel Plate, Sheet, and Strip for Pressure Vessels.
- C. ASTM C 1036 - Standard Specification for Flat Glass.
- D. ASTM F 446 - Standard Consumer Safety Specification for Grab bars and Accessories Installed in the Bathing Area.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's product data for products specified, indicating selected options and accessories.
- C. Quality Assurance Submittals:
 - 1. Manufacturer's printed installation instructions for each specified product.
 - 2. Documentation of Manufacturer's Qualifications, specified in 1.5 of this Section.
- D. Closeout Submittals: Warranty, issued and executed by manufacturer, and countersigned by Contractor.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum five (5) years documented experience producing products specified.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Ship products in manufacturer's standard protective packaging with vinyl coating on exposed surfaces.
- B. Storage and Protection: Store products in manufacturer's protective packaging until installation.

1.7 SEQUENCING

- A. Supply locations, dimensions, and other pertinent details for use by list in 1.2, RELATED SECTIONS.

1.8 WARRANTY

- A. Manufacturer's standard warranty against defects in product workmanship and materials.
- B. Manufacturer's 15-year warranty against silver spoilage of mirrors.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers: ASI-American Specialties, Inc.; 441 Saw Mill River Road, Yonkers NY 10701-4913; ASD. Te1: (914) 476-9000, Fax: (914) 476-0688.
- B. Kohler.
- C. Dal Tile
- D. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 MATERIALS

- A. Stainless Steel Sheet: ASTM A 240/A 240M, Type 304.

2.3 MIRRORS

Tempered Glass Mirror: 1/4 inch thick polished tempered glass, two coats silver, hermetically sealed with uniform electrolytically-deposited copper plating, backpainted with waterproof coating with concealed mounting.

2.4 GRAB BARS

Comply with ASTM F 446 from ASTM A 554 stainless steel tubing, 18 gauge, Type 304; formed 1-1/2 inch radius return to wall at each end; heliarc-welded to minimum 11 gauge stainless steel flange.

- A. Grab Bars: Concealed Mounting.
 - 1. Peened safety grip finish.
 - 2. 1 1/2" O.D.
 - 3. Sizes and configurations: As indicated in Schedule.
- B. Concealed Mounting Flanges: Stainless steel, 3 inch diameter by 1/2 inch deep, with 13 gauge steel tenon plate for concealed attachment, using three set screws.

2.5 OTHER ACCESSORIES – see drawing schedule and cut sheets

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions:
 - 1. Prepared openings are sized and located in accordance with shop drawings.
 - 2. Reinforcement and anchoring devices are correct type and are located in accordance with shop drawings.
- B. Installer's Examination:
 - 1. Installer shall examine conditions under which construction activities are to be performed, then submit written notification if such conditions are unacceptable.
 - 2. Transmit two copies of installer's report to Architect within 24 hr of receipt.

3. Installation activities before unacceptable conditions have been corrected is prohibited.
4. Installation indicates installer's acceptance of conditions.

3.2 INSTALLATION

- A. Install toilet accessories plumb and level in accordance with shop drawings and manufacturer's printed installation instructions.
- B. Locate toilet accessories at heights specified by Americans with Disabilities Act.

3.3 CLEANING

- A. Remove manufacturer's protective vinyl coating from sight-exposed surfaces 24 hours before final inspection.
- B. Clean surfaces in accordance with manufacturer's recommendations.

3.4 PROTECTION OF INSTALLED PRODUCTS

- A. Protect products from damage caused by subsequent construction activities.
- B. Field repair of damaged product finishes is prohibited; replace products having damaged finishes caused by subsequent construction activities.

3.5 SCHEDULE

- A. See Fixture Schedule for locations.

END OF SECTION

SECTION 12355 - Manufactured Wood-Veneer-Faced Casework

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Vanity Cabinets.
- B. Handicapped Accessible Cabinets

1.2 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry; Blocking and supports.
- B. Section 06220 - Millwork and Trim.
- C. Section 06410 - Custom Cabinets.
- D. Section 06605 - Solid Surface Countertops.

1.3 REFERENCES

- A. ANSI A161.1 - Performance and Construction Standard for Kitchen and Vanity Cabinets.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Perform Work in accordance with ANSI A161.1.

1.5 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- B. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color and finish.
- C. Shop Drawings: Indicate casework locations, plans, elevations, rough-in and anchor placement dimensions and tolerances and clearances required. All casework, showing details of construction, including materials, hardware and accessories. Cabinets and counters showing faucets in connection with sink bowls. Fastenings and method of installation.

1.6 QUALITY ASSURANCE

- A. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.
 - 4. Accepted mock-ups shall be comparison standard for remaining Work

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products indoors, under cover in manufacturer's unopened packaging until ready for installation.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers:
 - 1. SMFD located at 214 Permalume Place, Atlanta, GA 30318, Contact Skylar Morgan, tel. 404-274-0616, email: skylar@smf-d.com, White Oak
 - 2. Wellborn Cabinet, Inc. Wellborn Cabinet, Inc., P.O. Box 1210, Ashland, AL 36251
Phone: 1-800-762-4475, Fax: (256) 354-1874, Woodcraft Series, Vanity Sink with full overlay doors, Hanover Door, Oak Medium Stain.
 - 3. MasterBath, by RSI, 400 East Orangethore Ave, Anaheim, CA 92801, Phone: 1-888-829-1140 ,Elite Series, Shaker Panel, Maple Cinnamon Finish
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 MATERIALS AND CONSTRUCTION

- A. Face Frames: Mortise and tenon, glued and fastened. Horizontal rails 3/4 inch by 1-1/2 inch kiln dried hardwood. Vertical stiles 3/4 inch by 1-1/2 inch kiln dried hardwood. Center stiles 3/4 inch by 3 inches kiln dried hardwood.
- B. Cabinet Ends: Exposed ends 1/2 inch thick veneered plywood. Base cabinet ends rabbeted to receive floor and intermediate shelf.
- C. Cabinet Doors: Doors five piece hardwood frame door, type as specified.
- D. Base Cabinet Floors: Base cabinet floor not less than 1/2 inch veneered plywood let into sides and face frame. All joints glued and power nailed. Back of floor set on supporting member, glued and fastened.
- E. Hardware: Concealed hinges, self closing.
- F. Cabinet Backs: All back are 1/8 inch veneered plywood.
- G. Finish: Clear Lacquer

2.3 COMPONENT STYLE

- 1. Door:
 - a. Solid wood with a semi-full overlay and a traditional square recessed panel profile.
 - b. Solid wood face frames.
 - c. Profiled edge.
 - d. Concealed hinges.

2.4 CABINETS

- A. Vanity Sink Base:
 - 1. V1 - Base with Full Height Doors:
 - a. Height: 31-1/2 inches.
 - b. Width: 30 inches.
 - c. Depth: 23 inches.
 - d. Toe Space: 4 inches
 - 2. V2 – ADA Handicapped Accessible Vanity Sink Base with full height doors:
 - a. Height: 31-1/2 inches
 - b. Width: 30 inches.
 - c. Depth: 23 inches.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Use anchoring devices and fasteners to suit conditions and substrate materials encountered.
- C. Set cabinet work items plumb and square, securely anchored to building structure.
- D. Carefully scribe cabinet work abutting other components
- E. Adjust doors, drawers, hardware, fixtures, and other moving or operating parts to function smoothly.
- F. Clean casework, shelves, and hardware.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION