FULTON COUNTY

Vision

People *Families* *Neighborhoods*

Mission

To serve, protect and govern in concert with local municipalities

Values

People *Customer Services*
Ethics *Resource Management*
Innovation *Equal Opportunity*

INVITATION TO BID #11ITB78822K-JD

CARNES JUSTICE CENTER BUILDING WALL PANEL EVALUATION PART II

For

GENERAL SERVICES DEPARTMENT

BID DUE DATE AND TIME: Monday, August 22, 2011 at 11:00 A.M.
BID ISSUANCE DATE: June 28, 2011
PRE-BID CONFERENCE DATE: Thursday, July 14, 2011 at 10:00 A.M.
PURCHASING CONTACT: Joyce Daniel, 404-612-5824
E-MAIL: joyce.daniel@fultoncountyga.gov

LOCATION: FULTON COUNTY DEPARTMENT OF PURCHASING & CONTRACT COMPLIANCE
130 PEACHTREE STREET, S.W., SUITE 1168
ATLANTA, GA 30303

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INVITATION TO BID

CARNES JUSTICE CENTER BUILDING WALL PANEL EVALUATION PART II

Sealed Bids for furnishing all materials, labor, tools, equipment and appurtenances necessary for the construction of Carnes Justice Center Building Wall Panel Evaluation Part II will be received by the Fulton County Department of Purchasing and Contract Compliance at 130 Peachtree Street, S.W. Suite 1168 Atlanta, GA 30303, until **11:00 A.M., local time, on Monday, August 22, 2011**, and then at said office publicly opened and read aloud.

Description of Project:

The Project consists of the following major elements: construction for demolition, exterior envelope, waterproofing, sealants and insulation at the Carnes Justice Center Building located at 160 Pryor Street, Atlanta, Georgia 30303 and shall include exterior masonry repair with alternate for roofing. See Division Work Requirements, Summary of Work, Section 01 10 00 for additional information.

Permits:

The Contractor shall be responsible for securing and paying for all permits, fees, taps, meters, inspections and bonds required to complete the Work.

The Contractor assumes responsibility for securing all land disturbance permits, demolition permits and building permits; providing meters and paying all utility tie-in fees; restoring of roads and right-of-ways; maintaining siltation control; and securing all final releases for regulating bodies. Minimum permits required for the Project:

1. Demolition Permit: from City of Atlanta Bureau of Buildings
2. Building Permit: from City of Atlanta Bureau of Buildings

The Contractor is responsible for payment of fees associated with the permits and inspections per the following schedule. ANY FEE FOR REQUIRED PERMITS OR INSPECTIONS NOT SPECIFICALLY NOTED BELOW AS WAIVED IS THE RESPONSIBILITY OF THE DESIGN/BUILDER.

a. Land Disturbance Permitting-Fee Waived
b. Fulton County Building Permit-Fee Waived

Rights of Way/Easements:

The contractor shall be responsible for all inspections and ensuring compliance with all Federal, State and County laws and codes. The Contractor shall be solely responsible for obtaining all permits for sidewalk or street closings from the city of Atlanta.

Bid Documents:

The Instructions to Bidders, Bid and Contract Requirements (Bid Form, Bid Bond, Performance Bond, Payment Bond, Contract Agreement), and other Documents (Drawings and/or Specifications) may be examined at the following locations:

Action Blueprint
2705 Monroe Drive
Atlanta, Georgia 30324
(404) 885-1433
Web site: action@actiondis.com

This document and supporting documents can be downloaded at the Fulton County Website, http://www.fultoncountyga.gov under "Bid Opportunities".

The cost for a set of drawing and specifications is **$ 68.02**. The non-refundable payment must be made to **Action Blueprint**.

Payment must be in the form of a company or personal check payable to **Action Blueprint,** checks returned for any reason will result in the bid being deemed non-responsive. Action Blueprint will not take any orders over the telephone. You have an option of email, fax or in person. This amount includes all fees for printing and distribution and will be used to defray a portion of the printing cost that may have been incurred for the tendering of the Project. Partial sets of the bid document will not be issued.

Subcontracting Opportunities:

Potential prime contractors submitting a bid on this project for Fulton County and are seeking subcontractors and/or suppliers can advertise those subcontracting opportunities on the County's website, http://www.fultoncountyga.gov under "Subcontracting Bid Opportunities".

Term of Contract:

The Bidder agrees hereby to commence work under this Contract, with adequate personnel and equipment, on a date to be specified in a written order of the Contracting Officer and to fully complete all work under this Contract within **545 consecutive days** from notice to proceed.

The County will make payments, within **45** days, in response to the Contractor's monthly Applications for Payment, which are accompanied by the Engineer's Certificate for Payment, for work performed to date plus cost of stored materials, less retainage. Payments, Applications for Payment, Certificates for Payment, and retainage shall be in accordance with the provisions of the Contract Documents.

No Contact Provision

It is the policy of Fulton County that the evaluation and award process for County contracts shall be free from both actual and perceived impropriety, and that contacts between potential vendors and County officials, elected officials and staff regarding pending awards of County contracts shall be prohibited.

A. No person, firm, or business entity, however situated or composed, obtaining a copy of or responding to this solicitation, shall initiate or continue any verbal or written communication regarding this solicitation with any County officer, elected official, employee, or designated County representative, between the date of the issuance of this solicitation and the date of the County Manager's recommendation to the Board of Commissioners for award of the subject contract, except as may otherwise be specifically authorized and permitted by the terms and conditions of this solicitation.

B. All verbal and written communications initiated by such person, firm, or entity regarding this solicitation, if same are authorized and permitted by the terms and conditions of this solicitation, shall be directed to the Purchasing Agent.

C. Any violation of this prohibition of the initiation or continuation of verbal or written communications with County officers, elected officials, employees, or designated County representatives shall result in a written finding by the Purchasing Agent that the submitted Bid or proposal of the person, firm, or entity in violation is "non-responsive", and same shall not be considered for award.

Bid Contact

Information regarding the bid or bid requirements, either procedural or technical, may be obtained by submitting questions in writing to:

Fulton County Department of Purchasing and Contract Compliance
Attn: Joyce Daniel, Assistant Purchasing Agent
Fulton County Public Safety Building
130 Peachtree Street, S.W. Suite 1168
Atlanta, GA 30303
Phone: (404) 612-5824
Fax: (404) 335-5806
Reference Bid #11ITB78822K-JD

Or joyce.daniel@fultoncountyga.gov

Basis of Award

The Contract, if awarded, will be awarded to the lowest responsive and responsible bidder. No bid may be withdrawn for a period of sixty (60) days after the date of bid opening except as permitted by O.C.G.A., §36-91-41 et seq., as amended. Each Bid must be accompanied by a Bid Bond in accordance with the Bid Bond Requirements provided in the Contract Documents, on a Surety Company's Standard Bid Bond Form acceptable to the County in an amount no less than 5% of the amount bid. The successful bidder will be required to furnish a Performance Bond and Payment Bond, **on or before** the issuance of Notice to Proceed, each in the amount of 100% of the Contract Amount. All other required Contract Documents must be fully completed and executed by the Contractor and his/her Surety, and submitted to the Owner **on or before** the issuance of the Notice to Proceed.

Pre-Bid Conference

Date:	Thursday, July 14, 2011
Time:	10:00 A.M.
Location:	Fulton County Department of Purchasing and Contract Compliance Public Safety Building 130 Peachtree Street, S.W. Suite 1168 Atlanta, GA 30303

A mandatory pre-bid conference will be held in the Fulton County Department of Purchasing and Contract Compliance Conference Room, located at 130 Peachtree Street, S.W. Suite 1168, Atlanta, Georgia 30303. ***Inquiries regarding the solicitation either technical or otherwise may be submitted in writing prior to the pre-bid conference and will be addressed at the pre-bid conference.*** Any additional questions asked at the pre-bid conference must be submitted in written form at the pre-bid conference and will be responded to in the form of an addendum with the County's official responses.

The Pre-bid conference will be conducted for the purpose of explaining the County's bid process, the specifications/technical documents, and to provide non-binding verbal responses to questions concerning these bid specifications and to discuss issues from the bidders perspective. However, no verbal response provided at the pre-bid conference binds the County. Only those

responses to written questions that are responded to by the County in written communications will be official.

END OF SECTION

INSTRUCTIONS TO BIDDERS

A. Contract Documents

The Contract Documents include the Contract Agreement, Contractor's Bid (including all documentation accompanying the Bid and any post-Bid documentation required by the County prior to the Notice of Award), Bonds, all Special Conditions, General Conditions, Supplementary Conditions, Specifications, Drawings and addenda, together with written amendments, change orders, field orders and the Construction Manager's written interpretations and clarifications issued in accordance with the General Conditions on or after the date of the Contract Agreement.

Shop drawing submittals reviewed in accordance with the General Conditions, geotechnical investigations and soils report and drawings of physical conditions in or relating to existing surface structures at or contiguous to the site are not Contract Documents.

The Contract Documents shall define and describe the complete work to which they relate.

B. Bid Preparation and Execution

All Bids must be made on the Bid forms contained herein. The original signed Bid with three (3) copies shall be submitted in a sealed envelope, addressed to the Department of Purchasing and Contract Compliance, Fulton County Public Safety Building, 130 Peachtree Street, S.W., Suite 1168 Atlanta, Georgia 30303, and labeled "Bid for ITB-**#11ITB78822K-JD- Carnes Justice Center Building Wall Panel Evaluation Part II.**

REQUIRED SUBMITTALS: The bidder **must complete and execute** the following:

1. Bid Form
2. Acknowledgement of each Addendum
3. Bid Bond
4. Purchasing Forms (See Submittal Check List at end of this Section), fully executed
5. Contract Compliance Forms (See Submittal Check List at end of this Section), fully executed
6. Risk Management Insurance Provisions Form
7. OSHA Certificate for Superintendent – 40 Hour Requirement
8. References – Provide three (3) references on major building construction projects 50,000 – 100,000 sq. ft.
9. Contractor's Warranty – submit standard contractor warranty information
10. Installer Warranty – submit installer warranty for two (2) years

Any bids received after the stated time and date will not be considered. It shall be the sole responsibility of the bidder to have his/her bid delivered to the Fulton County Department of Purchasing and Contract Compliance for receipt on or before the stated time and date (see Section 00020). If a bid is sent by U.S. Mail, the bidder shall be responsible for its timely delivery to the Purchasing Department. Bids delayed by mail will not be considered, shall not be opened, and arrangements shall be made for their return at the bidder's request and expense.

Bid shall be publicly opened, with only the names and total bid price of the bidders disclosed at the opening.

C. Addenda and Interpretations

No interpretations of the meaning of the Drawings, Specifications or other pre-bid documents will be made to any Bidder orally.

Bidders requiring clarification or interpretation of the Contract Documents shall make a request in writing, either by mail, hand delivery, e-mail or fax, to the Purchasing Agent at the address below. To be given consideration, requests must be received no later than **2:00 P.M., Thursday, August 11, 2011**. The County will not respond to any requests, oral or written, received after this date. Telephone inquiries will not be accepted.

Fulton County Department of Purchasing and Contract Compliance
Attn: Joyce Daniel, Assistant Purchasing Agent
Fulton County Public Safety Building
130 Peachtree Street, S.W., 1168
Atlanta, GA 30303
Fax: (404) 335-5806
joyce.daniel@fultoncountyga.gov
Reference Bid # 11ITB78822K-JD

Only communications from firms that are in writing and signed will be recognized by the County as duly authorized expressions on behalf of proposers/bidders. Any and all such interpretations and any supplemental instructions will be in the form of written Addenda to the Contract Documents which, if issued, will be mailed, shipped or faxed to all prospective Bidders (at the respective addresses furnished) prior to the date fixed for the opening of Bids.

Failure of Bidders to receive or acknowledge any Addendum shall not relieve them of any obligation under the Bid. All Addenda shall become part of the Contract Documents.

D. Site Examination

There will be a **mandatory site visit** for this project. **It will be held immediately after pre-bid conference on Thursday, July 14, 2011** Bidders **are** required to attend.

E. Bidder's Modification and Withdrawal of Bids

A Bidder may modify or withdraw its bid by written request, provided that the request is received by the County prior to the bid due date and time at the address to which bids are to be submitted. Provided further, that in case of an electronic request (i.e. facsimile, e-mail, etc.) a written confirmation thereof over the authorized signature of the Bidder must be received by the County at the address to which original Bids are to be submitted within three (3) calendar days after issue of the electronic message. Following withdrawal of its bid, the Bidder may submit a new bid, providing delivery is affected prior to the established bid opening date and time. **No bid may be withdrawn after bid due date for sixty (60) calendar days.**

F. Bid and Contract Security

A Bid Bond for an amount equal to five percent (5%) of the bid amount must accompany each Proposal. The bid bond shall be submitted in a separate, sealed envelope marked "Bid Bond".

Bids must be accompanied by a bid bond or certified check in an amount of five percent (5%) of the TOTAL AMOUNT of the base bid. The bid bond or certified check shall apply ONLY TO THIS BID. The bid name and contract number must appear on the security instrument. The bond must remain in full force and effect until the Bidder executes the final Contract. Bids not satisfying the bonding requirements of this project will be declared non-responsive.

Any bid bond, performance bond, payment bond, or security deposit required for public works construction contract shall be approved and filed with purchasing agent. At the option of the County, if the surety named in the bond is other than a surety company authorized by law to do business in this state pursuant to a current certificate of authority to transact surety business by the Commissioner of Insurance, such bond shall not be approved and filed unless such surety is on the United States Department of Treasury's list of approved bond sureties.

A Purchasing Agent shall approve as to form and as to the solvency of the surety any bid bond, performance bond, or payment bond required by this. In the case of a bid bond, such approval shall be obtained prior to acceptance of the bid or proposal. In the case of payment bonds and performance bonds, such approval shall be obtained prior to the execution of the contract.

Whenever, in the judgment of the County:
(1) Any surety on a bid, performance, or payment bond has become insolvent;
(2) Any corporation surety is not longer certified or approved by the Commissioner of Insurance to do business in the state; or
(3) For any cause there are no longer proper or sufficient sureties on any or all the bonds

The County may require the contractor to strengthen any or all of the bonds or to furnish a new or additional bond or bonds within ten days. Thereupon, if so ordered by the County, all work on the contract shall cease unless such new or additional bond or bonds are furnished. If such bond or bonds are not furnished within such time, the County may terminate the contract and complete the same as the agent of and at the expense of the contractor and his or her sureties.

As a condition of responsiveness the bidder must contain a Bid Bond for an amount equal to 5% of the bid amount. The Bid Bond shall be included in a separate envelope marked on the outside "Bid Bond". Checks or letters of credit of any type will not be accepted. A certified cashier's check will be acceptable. Provide a completed and fully executed Bid Bond. When the bidder's package is opened, a purchasing agent will verify the presence of the Bid Bond and remove it from the Proposal Package.

If the bidder withdraws its bid from the competition after the selection of its bid for a reason not authorized by Georgia law, the County will proceed on the Bid Bond, along with any other available remedies.

The Surety of the Bid Bond shall be from a surety company authorized to do business in the State of Georgia, shall be listed in the Department of Treasury Circular 570, and shall have an underwriting limitation in excess of 100% of the bid amount. The Bonds and Surety shall be subject to approval by the County Attorney.

Attorneys-in-fact for bidders who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

G. Right to Reject Bids

The County reserves the right to reject any or all bids and to waive informalities. No bids will be received after the time set for opening bids. Any unauthorized conditions, limitations or provisions attached to the Bid, except as provided herein, will render it informal and may cause its rejection. Unbalanced bids will be subject to rejection. Any bidder may withdraw his/her bid, either personally or by telegraphic or written request, at any time prior to the scheduled closing time for receipt of bids. Telegraphic or written requests for withdrawal must be in the possession of the County prior to the closing time for receipt of bids.

H. Applicable Laws

All applicable laws and regulations of the State of Georgia and ordinances and regulations of Fulton County shall apply. Protestors shall seek resolution of their complaints in the manner provided in the Fulton County Code of Laws §2-324, which is incorporated by reference herein.

I. Examination of Contract Documents

Prospective bidders shall examine the contract documents and before submitting a bid, shall make a written request to the County for an interpretation or correction of any ambiguity, in consistency or error therein which could be discovered by a bidder. At the bid opening each bidder shall be presumed to have read and be familiar with the contract documents.

J. Indemnification and Hold Harmless Agreement

See Section 00490, Insurance and Risk Management Provisions page 3, Indemnification and Hold Harmless Agreement

K. Bid Opening

Bids will be opened in public and read aloud. All bidders are requested to be present at the opening.

L. Determination of Successful Bidder

Fulton County desires to complete this work in a timely manner. The Contract will be awarded to the lowest responsive, responsible bidder(s), if awarded.

1. **Responsibility:** The determination of the bidder's responsibility will be made by the County based on whether the bidder meets the following minimum requirements:

    a. The County reserves the right to reject any bid if the evidence submitted by, or investigation of, the bidder fails to satisfy the County that he/she is properly qualified to carry out the obligations of the Contract.
    b. Maintains a permanent place of business individually or in conjunction with the prime contractor.
    c. Has the appropriate and adequate technical experience. Designated Project Manager must be proficient in all aspects of contracted work.
    d. Has adequate personnel and equipment to do the work expeditiously.
    e. Has suitable financial means to meet obligations incidental to the work.

2. **Responsiveness:** The determination of responsiveness will be made by the County based on a consideration of whether the bidder has submitted a complete Bid form without irregularities, excisions, special conditions, or alternative bids for any item unless specifically requested in the Bid form.

M. Georgia Utility Contractors License / *(NON-APPLICABLE)*

N. General Contractors License (*APPLICABLE)*

Effective July 1, 2008, all general contractors are required to be licensed by the State of Georgia to perform the following work; construction; construction management services; or design-build services as a prime contractor, joint venture partner, or as a subcontractor to a design professional acting as prime contractor as part of a design-build entity or combination, unless exempted from holding such license pursuant to Georgia law

(O.C.G.A. 43-41-17). If exempted, Contractor must submit a copy of their Georgia Department of Transportation Certificate of Qualification with their bid submittal.

Bidders must complete Form C2: Georgia General Contractors License Certification in Section 6, Purchasing Forms. Failure to provide the required license shall deem your bid non-responsive.

O. Professional Licenses *(APPLICABLE)*

The State of Georgia requires that the following professions are required by state law to be licensed:

1. Electricians
2. Plumbers
3. Conditioned Air Contractors
4. Low voltage Contractors

Bidders and any sub-contractors performing any of the above described work must provide a copy of their license for the work they will perform on this project. Bidders must complete Form C3: Georgia Professional License Certification in Section 6, Purchasing Forms Failure to provide the required license may deem your bid non-responsive.

P. Wage Clause

Pursuant to 102-391, Each Contractor shall agree that in the performance of the Contract he will comply with all lawful agreements, if any, which the Contractor had made with any association, union, or other entity, with respect to wages, salaries, and working conditions, so as not to cause inconvenience, picketing, or work stoppage.

Q. Notice of Award of Contract

As soon as possible, and within sixty (60) days after receipt of bids, the County shall notify the successful Bidder of the Award of Contract.

The award shall be made by the Board of Commissioners of Fulton County to the lowest responsive, responsible bidder(s) as soon as possible after receipt of bids, taking into consideration price and the responsiveness to the requirements set forth in the Invitation for Bid. In such case, no claim shall be made by the selected Contractor(s) for loss of profit if the contract is not awarded or awarded for less work than is indicated and for less than the amount of his bid. The total of the awarded contract shall not exceed the available funds allocated for this project.

Should the County require additional time to award the contract, the time may be extended by mutual agreement between the County and the successful bidder. If an Award of Contract has not been made within sixty (60) days from the bid date or within the extension mutually agreed upon, the Bidder may withdraw the Bid without further liability on the part of either party.

Any award made by the Board of Commissioners as a result of this bid will begin from the date of the notice to proceed. The Bidder agrees hereby to commence work under this Contract, with adequate personnel and equipment, on a date to be specified in a written order from the user department. The contract shall become effective on the Contract Date and shall continue in effect until the end of the term of the contract or until the project has been closed-out unless earlier terminated pursuant to the termination provisions of the contract.

R. Execution of Contract Documents

Upon notification of Award of Contract, the County shall furnish the Contractor the conformed copies of Contract Documents for execution by the Contractor and Contractor's surety.

Within ten (10) days after receipt the Contractor shall return all the documents properly executed by the Contractor and the Contractor's surety. Attached to each document shall be an original power-of-attorney for the person executing the bonds for the surety and certificates of insurance for the required insurance coverage.

After receipt of the documents executed by the Contractor and his surety with the power-of-attorney and certificates of insurance, the County shall complete the execution of the documents. Distribution of the completed documents will be made upon completion.

Should the contractor and/or surety fail to execute the documents within the time specified, the County shall have the right to proceed on the Bid Bond accompanying the bid.

If the County fails to execute the documents within the time limit specified, the Contractor shall have the right to withdraw the Contractor's bid without penalty.

Should an extension of any of the time limits stated above be required, this shall be done only by mutual agreement between both parties.

Any agreement or contract resulting from the acceptance of a bid shall be on a County approved document form. The County reserves the right to reject any agreement that does not conform to the Invitation for Bid and any County requirements for agreements and contracts. The County reserves the right to modify the agreement resulting from this bid upon the recommendation of the County Attorney.

S. Joint Venture

Any Bidder intending to respond to this solicitation as a joint venture must submit an executed joint venture agreement with its offer. The agreement must designate those persons or entities authorized to execute documents or otherwise bind the joint venture in all transactions with Fulton County, or be accompanied by a document, binding upon the joint venture and its constituent members, making such designation. Offers from joint ventures that do not include these documents will be rejected as being non-responsive.

T. Contractors Compliance with All Assurances and/Or Promises Made In Response to Procurement

Should any Bidder submit a response to the County promising to provide a certain level of service for either the scope of work, MFBE participation, or any other matter, including where such promise or assurance is greater than what is required by the procurement documents, and should this response containing the promise or assurance be accepted by the County and made a part of the Contract Documents, then this degree or level of service promised by the bidder relating to the scope of work, MFBE participation, or other matter shall be considered to be a material part of the Agreement between the bidder and the County, such that the bidder's failure to provide the agreed upon degree or level of service or participation shall be a material breach of the Agreement giving the County just cause to terminate the Agreement for cause, pursuant to the General Conditions of the Agreement.

U. Georgia Security and Immigration Compliance Act

This Invitation to Bid is subject to the Georgia Security & Immigration Compliance Act. Pursuant to the Georgia Security & Immigration Compliance Act of 2006, as amended on

May 11, 2009, bidders and proposers are notified that all bids/proposals for services that are to be physically performed within the State of Georgia must be accompanied by proof of their registration with and continuing and future participation in the E-Verify program established by the United States Department of Homeland Security. A completed affidavit must be submitted on the top of the bid/proposal at the time of submission, prior to the time for opening bids/proposals. Under state law, the County cannot consider any bid/proposal which does not include a completed affidavit. It is not the intent of this notice to provide detailed information or legal advice concerning the Georgia Security & Immigration Compliance Act. All bidders/proposers intending to do business with the County are responsible for independently apprising themselves and complying with the requirements of that law and its effect on County procurements and their participation in those procurements. For additional information on the E-Verify program or to enroll in the program, go to: https://e-verify.uscis.gov/enroll.
See Section 00420, Purchasing Forms & Instructions for declarations and affidavits.

V. Bid General Requirements

The following information pertains to the submission of a Bid to Fulton County, and contains instructions on how Bids must be presented in order to be considered. Listed below are the requirements for all Bidders interested in doing business with Fulton County.

1. The Bid sheets included in this Invitation to Bid ("Bid") must be fully completed and returned with the Bid unless otherwise specified in writing by the Purchasing Department. Type or neatly print the date, company name, and the full legal name and title of the person(s) signing the Bid in the place provided at the bottom of each Bid sheet. Any additional sheets submitted must contain the same signature and Bidder information.

2. All signatures must be executed by person(s) having contracting authority for the Bidder.

3. Absolutely no fax Bids or reproduction Bids will be accepted, except that photocopies may be submitted in addition to the original when multiple copies of the Bid are specifically requested in the solicitation.

4. The envelope in which the Bid response is submitted must be sealed and clearly labeled with the Bid number, project title, due date and time, and the name of the company or individual submitting the proposal. Bids must be received by the opening date and time shown on this Bid in order to be considered. The Purchasing Agent has no obligation to consider Bids which are not in properly marked envelopes. Contract Compliance submittals shall be submitted in a separate sealed envelope or package.

5. The original and the required number of copies of the Bid must be returned to:

   Fulton County Purchasing Agent
   Fulton County Department of Purchasing and Contract Compliance
   130 Peachtree Street, S.W., Suite 1168
   Atlanta, Georgia 30303

   Any inquiries, questions, clarifications or suggestions regarding this solicitation should be submitted in writing to the Purchasing Contact Person. Contact with any other County personnel in regard to a current solicitation is strictly prohibited in accordance with Fulton County "No Contact Provision" policy outlined in S35 and in Section 00020, Invitation to Bid.

6. Show information and prices in the format requested. Prices are to be quoted F.O.B. Destination, and must include all costs chargeable to the Contractor executing the Contract, including taxes. Unless otherwise provided in the Contract, Fulton County shall have no liability for any cost not included in the price. The Contractor shall provide Fulton County the benefit through a reduction in price of any decrease in the Contractor's costs by reason of any tax exemption based upon Fulton County's status as a tax-exempt entity.

7. All prices Bid must be audited by the Bidder to ensure correctness before the Bid is submitted. The Bidder is solely responsible for the accuracy of information placed on a Bid sheet, including prices. Clerical or mathematical error is insufficient to void a successful Bid but a Bidder may withdraw a sealed Bid prior to opening without a penalty.

8. All prices must be submitted in the format requested and less all trade discounts. When multiple items are being Bid, Bidder must show both the unit price and the total extended price for each item. When applicable, the Bidder must include an additional lump sum Bid for groups or items. In the event a Bidder is offering an additional discount on groups of items, Bidder must indicate the total lump sum Bid for the particular group of items before any extra discount, the amount of extra discount, and the net total for the particular group. In the event of an extension error, unit pricing shall prevail.

9. By submitting a signed Bid, Bidder agrees to accept an award made as a result of that Bid under the terms and conditions spelled out in the Bid documents. In the event of a conflict between the different Bid documents, the County's cover Contract (if used) shall have precedence, followed in order by the Invitation to Bid, Purchase Order, Bid, Contractor's Warranty Agreement, Maintenance Agreement, and/or other Contractor provided agreements.

10. A Bidder may submit only one (1) Bid response for each specific Bid solicitation unless otherwise authorized in the specifications.

11. All prices submitted by the Bidder to Fulton County must be guaranteed by the authorized person(s) against any price increase for the time period designated in the Bid specifications, and Fulton County must be given the benefit of any price decrease occurring during such designated time period.

12. All items Bid must be new. Used, rebuilt and refurbished items will not be considered unless specifically authorized by Fulton County in the written specifications.

13. All Bidders must specify in the Bid response the earliest actual delivery date for each item unless otherwise specified in writing by Fulton County. The delivery date may be a factor in deciding the Bidder's capability to perform.

14. A successful Bidder's delivery ticket(s) and invoice(s) must list each item separately and must show Fulton County's purchase order number as well as the proper department and address to which delivery was made, as listed on the purchase order or in the Bidder's contract with Fulton County.

15. Unless clearly shown as "no substitute" or words to that effect, any items in this invitation to Bid which have been identified, described or referenced by a brand name or trade name are for reference only. Such identification is intended to be descriptive but not restrictive, and is to indicate the general quality and characteristics of products that may be offered. Each item Bid must be individually identified as to whether it is a specified item or an equivalent item by typing or printing after the item(s): The brand

name; model or manufacturer's number, or identification regularly used in the trade. Deviations from the specifications must be clearly and fully listed on the Bid sheet, including photographs or cuts, specifications, and dimensions of the proposed "alternate". Fulton County is the sole judge of "exact equivalent", or "alternate". The factors to be considered are: function, design, materials, construction, workmanship, finishes, operating features, overall quality, local service facilities, warranty terms and service, and other relevant features of item(s) Bid.

16. For all Bids, Fulton County reserves the right to request representative samples. If requested, samples must be delivered at the Bidder's cost within three (3) business days. Samples are submitted at the risk of the Bidder and may be subjected to destructive tests by Fulton County. Samples must be plainly tagged with Fulton County's Bid number, item name, manufacturer, and the name of the Bidder.

17. Item(s) Bid must be complete and ready to operate. No obvious omissions of components or necessary parts shall be made even though the specifications may not detail or mention them. Unit(s) must be furnished with factory installed equipment and must be comparable with the basic form, fit, and functional requirements which are all to be included in the base price as well as any other equipment included as standard by the manufacturer or generally provided to the buying public.

18. All successful Bidders must assume full responsibility for all item(s) damaged prior to F.O.B. Destination delivery and agree to hold harmless Fulton County of all responsibility for prosecuting damage claims.

19. All successful Bidders must assume full responsibility for replacement of all defective or damaged goods within thirty (30) days of notice by Fulton County of such defect or damage.

20. All successful Bidders must assume full responsibility for providing or ensuring warranty service on any and all items including goods, materials, or equipment provided to the County with warranty coverage. If a successful Bidder is not the manufacturer, all manufacturers' warranties must be passed through to Fulton County. The Bidder and not Fulton County is responsible for contacting the manufacturer of the warranty service provided during the warranty period and supervising the completion of the warranty service to the satisfaction of Fulton County.

21. As a successful Bidder providing any equipment which requires fitting and assembly, the Bidder shall be solely responsible for such installation being performed by a manufacturer's authorized or approved servicer or an experienced worker, utilizing workmanship of the highest caliber. The Bidder must verify all dimensions at the site, shall be responsible for their correctness, and shall be responsible for the availability of replacement parts when specified in writing by Fulton County in the specifications, purchase order, or other contract.

22. A successful Bidder is solely responsible for disposing of all wrappings, crating, and other disposable material upon deliver of item(s).

23. All Bidders are required to be authorized distributors or regularly engaged in the sale or distribution of the type of goods, materials, equipment or services for which the Bidder is submitting a Bid response in addition, all Bidders are required to provide Fulton County with three (3) written references documenting the successful completion of Bids or contracts for the types of items including goods, materials, equipment, or services for which the Bidder is submitting a Bid response. In instances where a Bidder has never supplied such goods, material, equipment, or services before, the Bidder must submit with the Bid response a statement and supporting documentation demonstrating such

expertise, knowledge, or experience to establish the Bidder as a responsible Bidder, capable of meeting the Bid requirements should an award be made. No exceptions to this provision will be made unless authorized in the Bid specifications.

24. Bidders may be required to furnish evidence that they maintain permanent places of business of a type and nature compatible with their Bid proposal, and are in all respects competent and eligible vendors to fulfill the terms of the specifications. Fulton County may make such investigations as it deems necessary to determine the ability of the Bidder to perform such work, and reserves the right to reject any Bidder if evidence fails to indicate that the Bidder is qualified to carry out the obligation of the Contract and to complete the work satisfactorily.

25. All Bidders must comply with all Fulton County Purchasing laws, policies, and procedures, non-discrimination in contracting and procurement ordinances, and relevant state and federal laws including but not limited to compliance with EEOC hiring guidelines and requirements under the Americans with Disabilities Act. Successful Bidder must obtain all permits, licenses, and inspections as required and furnish all labor, materials, insurance, equipment, tools, supervision, and incidentals necessary to accomplish the work in these specifications.

26. If a successful Bidder is unable or unwilling to enter into a Contract with Fulton County subsequent to being granted an award, or who fails to perform in accordance with the Bid specifications the Bidder will be subject to damages and all other relief allowed by law.

27. Successful Bidders contract directly with Fulton County and are the party or parties obligated to perform. Contracts may not be assigned and any failure to perform the Contract in accordance with the specifications will constitute a breach of Contract and may result in a Bidder being found to be "non-responsive" in the future.

28. In case of default by the successful Bidder, Fulton County may procure the articles for services from another source and hold the successful Bidder responsible for any resulting excess cost.

29. The County may award any Bid in whole or in part to one or more vendors or reject all Bids and/or waive any technicalities if it is in the best interests of the County to do so. In the event that all Bids are not rejected, Bids for items including goods, materials, equipment, and services will be awarded to the lowest "responsible" Bidder(s) as determined by Fulton County. Submitting the lowest Bid, as published at the Bid opening, does not constitute an award or the mutual expectation of an award of a Contract and purchase order. For purposes of this notice and the attached Bid sheets, a purchase order is a Contract to provide items including goods, materials, equipment, and services and is intended to have the full force and effect of a Contract. A breach of the terms and conditions of a purchase order constitutes a breach of Contract.

30. Bids for projects that are solicited pursuant to the Georgia Local Government Public Works Construction Law (O.C.G.A. § 36-91-1 et seq.) may withdrawn as follows:

    Competitive sealed Bids ("Bid") may not be revoked or withdrawn until 60 days after the time set by the governmental entity for opening of Bids. At the end of this time period, the Bid will cease to be valid, unless the Bidder provides written notice to the County prior to the scheduled expiration date that the Bid will be extended for a time period specified by the County.

31. In the evaluation of the Bids, any award will be subject to the Bid being:

a. Compliant to the specification – meets form, fit, and function requirements stated or implied in the specification.
b. Lowest cost to the County over projected useful life.
c. Administratively Compliant – Including all required bonds, insurance, established quality of work and general reputation, financial responsibility, relevant experience, and related criteria.

32. All proposals and Bids submitted to Fulton County are subject to the Georgia "Open Records Act", Official Code of Georgia, Annotated (O.C.G.A.) §50-18-70 et seq.

33. All proposals and Bids submitted to Fulton County involving Utility Contracting are subject to the Georgia law governing licensing of Utility Contractors, O.C.G.A. §43-14-8.2(h). The Utility Contractor License number of the person who will perform the utility work shall be written on the face of the Bid envelope.

34. The apparent silence of this specification, and any supplement thereto, as to details, of the omission from it of a detailed description concerning any point, will be regarded as meaning only the best commercial practices are to prevail. Only materials of the highest quality, correct type, size, and design are to be used. All interpretations of this specification will be made upon the basis of this statement, with Fulton County interpretation to prevail.

35. It is the policy of Fulton County that the evaluation and award process for County contracts shall be free from both actual and perceived impropriety, and that contacts between potential vendors and County officials, elected officials and staff regarding pending awards of County contracts shall be prohibited.

    a. No person, firm, or business entity, however situated or composed, obtaining a copy of or responding to this solicitation, shall initiate or continue any verbal or written communication regarding this solicitation with any County officer, elected official, employee, or designated County representative, between the date of the issuance of this solicitation and the date of the County Manager's recommendation to the Board of Commissioners for award of the subject contract, except as may otherwise be specifically authorized and permitted by the terms and conditions of this solicitation.

    b. All verbal and written communications initiated by such person, firm, or entity regarding this solicitation, if same are authorized and permitted by the terms and conditions of this solicitation, shall be directed to the Purchasing Agent.

    c. Any violation of this prohibition of the initiation or continuation of verbal or written communications with County officers, elected officials, employees, or designated County representatives shall result in a written finding by the Purchasing Agent that the submitted Bid or proposal of the person, firm, or entity in violation is "non-responsive", and same shall not be considered for award.

36. Any Bidder intending to respond to this solicitation as a Joint Venture must submit an executed Joint Venture Agreement with this Bid. This agreement must designate those persons or entities authorized to execute documents or otherwise bind the Joint Venture in all transactions with Fulton County, or are accompanied by a document, binding upon the Joint Venture and its constituent members, making such designation. Bids from Joint Ventures that do not include these documents will be rejected as being "non-responsive".

37. Any Bidder intending to respond to this solicitation must complete all of the Procurement Affidavit Forms provided in this solicitation. Bids that do not include these completed documents will be rejected as being "non-responsive".

Required Bid Submittal Check List for Invitation To Bid (ITB)

The following submittals shall be completed and submitted with each bid (see table below "Required Bid Submittal Check List."). **Please check to make sure that the required submittals are in the envelope before it is sealed. Failure to submit all required submittals may deem your proposal non-responsive.**

Submit one (1) Original bid, signed and dated and three (3) **complete** copies of the Original Bid including all required documents.

Item #	Required Bid Submittal Check List	Check (√)
1	Bid Form (Section 00300) – All dollar amounts must be both in writing AND figures and represent prices for the published scope of work without exceptions.	
2	Acknowledgement of each Addendum (acknowledged both on the Bid Form, Section 00300, and on the form included with each addendum).	
3	Bid Bond (Section 00410)	
4	Purchasing Forms (Section 00420) Form A - Non-Collusion Affidavit of Prime Bidder/Offeror Form B - Certificate of Acceptance of Request for Bid/Proposal Requirements Form C1- Georgia Utility Contractor License ***(NON APPLICABLE)*** Form C2- Georgia General Contractors License ***(APPLICABLE)*** Form C3- Georgia Professional Licenses ***(APPLICABLE)*** Form D - Certificate Regarding Debarment Form E - Disclosure Form & Questionnaire Form F - Declaration of Employee-Number Categories Form G - Georgia Security and Immigration Contractor Affidavit and Agreement Form H - Georgia Security and Immigration Subcontractor Affidavit	
5	Office of Contract Compliance Requirements (Section 00430) Exhibit A - Promise of Non-Discrimination (for Prime and each Sub) Exhibit B - Employment Record (for Prime and each Sub) Exhibit C - Schedule of Intended Subcontractor Utilization Exhibit D - Letter of Intent to Perform as Subcontractor Exhibit E - Declaration Regarding Subcontractor Practices Exhibit F - Joint Venture Disclosure Affidavit Exhibit G - Prime Contractor/Subcontractor Utilization Report Equal Business Opportunity Plan (EBO Plan)	
6	Risk Management Insurance Provisions Form (Section 00490) and proof of insurance, either letter from insurer or Certificate of Insurance.	
7	Cost Proposal Form and Alternates Cost Proposal Form	
8	Contractor's Warranty-submit standard contractor warranty information	
9	Installer Warranty-submit installer warranty for two (2) years	
10	OSHA Certificate for Superintendent – 40 Hour Requirement	
11	References – Provide three (3) references on major building construction projects of 50,000 – 100,000 sq. ft.	

END OF SECTION

BID FORM

Submitted To: Fulton County Government

Submitted By: _____

For: **#11ITB78822K-JD- Carnes Justice Center Building Wall Panel Evaluation Part II**

Submitted on _____, 2011.

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Bid as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Bid or in the Contract to be entered into; that this Bid is made without connection with any other person, company or parties making a Bid; and that it is in all respects fair and in good faith without collusion or fraud.

The Bidder further declares that he has examined the site of the work and informed himself fully in regard to all conditions pertaining to the place where the work is to be done; that he has examined the Drawings and Specifications for the work and contractual documents relative thereto, and has read all instructions to Bidders and General Conditions furnished prior to the openings of bids; that he has satisfied himself relative to the work to be performed.

The Bidder proposes and agrees, if this Bid is accepted, to contract with the Board of Commissioners of Fulton County, Atlanta, Georgia, in the form of contact specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary, and to complete the construction of the work in full and complete accordance with the shown, noted, and reasonably intended requirements of the Specifications and Contract Documents to the full and entire satisfaction of the Board of Commissioners of Fulton County, Atlanta, Georgia, with a definite understanding that no money will be allowed for extra work except as set forth in the attached General Conditions and Contract Documents for the following prices.

THE BASE BID IS THE AMOUNT UPON WHICH THE BIDDER WILL BE FORMALLY EVALUATED AND WHICH WILL BE USED TO DETERMINE THE LOWEST RESPONSIBLE BIDDER.

The base bid may not be withdrawn or modified for a period of sixty (60) days following the receipt of bids.

BASE BID AMOUNT (Do not include any Bid Alternates)

$_____
(Dollar Amount in Numbers)

_____
(Dollar Amount in Words)

The Bidder agrees hereby to commence work under this Contract, with adequate personnel and equipment, on a date to be specified in a written order of the Contracting Officer and to fully complete all work under this Contract within **Five hundred and forty-five (545) consecutive days** from Notice to Proceed.

COST PROPOSAL FORM

The following form shall be used for submitting Bid Prices:

TOTAL BASE BID AMOUNT:

BASE BID AMOUNT	$
OWNER ALLOWANCE	$130,000.00
TOTAL COST	$

ALTERNATES: The project will be awarded on the base bid amount. The following Alternates will be incorporated in the Contract if accepted.

ALTERNATE 1:

Alternate Amount		Deduction Amount	Addition Amount
Alt. 1	**– Roof Replacement – Upper Main Roof (Area A and Area C) - Approx 28,500 sq ft.** 1. Perform a Pre-job inspection for the set up of all safety equipment per OSHA guidelines. 2. Remove the existing built-up roofing system down the concrete roof deck . 3. Upon inspection make all repairs to roof deck. 4. Properly dispose of all related materials 5. Install 2.5" Polyisocyanurate insulation over the concrete roof deck using Firestone low rise insulation adhesive. 6. Install a Firestone 60 mil TPO fully adhered roof system over the polyiso. 7. TPO to extend to the same height, at parapet, as the existing base flashing and terminated with Firestone termination bar. 6. Flash all drains and penetrations per Firestone's specifications. 7. Install wood nailer, sheet metal flashing and coping at parapet walls 8. Clean up all materials used to complete the project, properly dispose of debris. 9. Provide a Firestone 15 year labor and material warranty. 10- Provided rubberized padded walkway matting from the area of elevator/machine room to roof exit. 11- Provide 2 yr contractor's installer Warranty.		
	BASE BID AMOUNT ALTERNATE NO. 1	$	$

BASE BID AMOUNT ALTERNATE NO. 1	**$**
OWNER ALLOWANCE	**$100,000.00**
TOTAL COST	**$**

ALTERNATE 2:

Alt. 2	**Roof Replacement – Lower Roof (Area D, E, F) - Approx 8,000 sq ft.** 1. Perform a Pre-job inspection for the set up of all safety equipment per OSHA guidelines. 2. Remove the existing built-up roofing system down the concrete roof deck. 3. Upon inspection make all repairs to roof deck. 4. Properly dispose of all related materials 5. Install 2.5" Polyisocyanurate insulation over the concrete roof deck using Firestone low rise insulation adhesive. 6. Install a Firestone 60 mil TPO fully adhered roof system over the polyiso. 7. TPO to extend to the same height, at parapet, as the existing base flashing and terminated with Firestone termination bar. 6. Flash all drains and penetrations per Firestone's specifications. 7. Install wood nailer, sheet metal flashing and coping at parapet walls 8. Clean up all materials used to complete the project, properly dispose of debris. 9. Provide a Firestone 15 year labor and material warranty. 10- Provided rubberized padded walkway matting from the area of elevator/machine room to roof exit. 11- Provide 2 yr contractor's installer Warranty.		
	TOTAL BASE BID AMOUNT ALTERNATE NO. 2	$	$

BASE BID AMOUNT ALTERNATE NO. 2	**$**
OWNER ALLOWANCE	**$70,000.00**
TOTAL COST	**$**

The Bidder declares that he understands that the quantities shown for the unit prices items are subject to either increase or decrease, and that should the quantities of any of the items of work be increased, the Bidder proposes to do the additional work at the unit prices stated herein; and should the quantities be decreased, the Bidder also understands that payment will be made on the basis of actual quantities at the unit price bid and will make no claim for anticipated profits for any decrease in quantities; and that actual quantities will be determined upon completion of work, at which time adjustments will be made to the contract amount by direct increase or decrease.

The Bidder furthermore agrees that, in the case of a failure on his part to execute the Contract Agreement and Bonds within ten days after receipt of conformed contract documents for execution, the Bid Bond accompanying his bid and the monies payable thereon shall be paid into the funds of the Owner as liquidated damages for such failure.

Enclosed is a Bid Bond in the approved form, in the sum of:

_____Dollars

($_____) according to the conditions of "Instructions to Bidders" and provisions thereof.

The undersigned acknowledges receipt of the following addenda (list by the number and date appearing on each addendum) and thereby affirms that its Bid considers and incorporates any modifications to the originally issued Bidding Documents included therein.

ADDENDUM # _____ DATED _____

ADDENDUM # _____ DATED _____

ADDENDUM # _____ DATED _____

ADDENDUM # _____ DATED _____

BIDDER: _____

Signed by: _____
[Type or Print Name]

Title: _____

Business Address: _____

_____

_____

Business Phone: _____

Bidder's Contractor License No: _____
[State/County]

License Expiration Date: _____

Note: If the Bidder is a corporation, the Bid shall be signed by an officer of the corporation; if a partnership, it shall be signed by a partner. If signed by others, authority for signature shall be attached.

The full name and addresses of persons or parties interested in the foregoing Bid, as principals, are as follows:

Name	Address

END OF SECTION

BID BOND

No bid for a contract in Fulton County for work to be done shall be valid for any purpose unless the Contractor shall give a Bid Bond with good and sufficient surety payable to, in favor of, and for the protection of Fulton County. The Bid Bond shall not be less than 5% of the total amount payable by the terms of the Contract. No bid shall be read aloud or considered if a proper bid bond has not been submitted.

Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Georgia.

Attestation for the corporation must be by the corporate officer; for a partnership by another partner; for an individual by a notary with the corporate seal.

BID BOND
#11ITB78822K-JD-Carnes Justice Center Building Wall Panel Evaluation Part II

FULTON COUNTY GOVERNMENT

KNOW ALL MEN BY THESE PRESENTS, THAT WE_____

_____

hereinafter called the PRINCIPAL, and _____

_____

hereinafter call the SURETY, a corporation chartered and existing under the laws of the State of _____and duly authorized to transact Surety business in the State of Georgia, are held and firmly bound unto the Fulton County Government (COUNTY), in the penal sum of _____ _____Dollars and Cents ($_____) good and lawful money of the United States of America, to be paid upon demand of the COUNTY, to which payment well and truly to be made we bind ourselves, our heirs, executors, and administrators and assigns, jointly and severally and firmly by these presents.

WHEREAS the PRINCIPAL has submitted to the COUNTY, for **#11ITB78822K-JD-Carnes Justice Center Building Wall Panel Evaluation Part II,** a Bid;

WHEREAS the PRINCIPAL desires to file this Bond in accordance with law:

NOW THEREFORE: The conditions of this obligation are such that if the Bid be accepted, the PRINCIPAL shall within ten (10) calendar days after receipt of written notification from the COUNTY of the award of the Contract execute the Contract in accordance with the Bid and upon the terms, conditions and prices set forth therein, in the form and manner required by the COUNTY, and execute sufficient and satisfactory Performance and Payments Bonds payable to the COUNTY, each in the amount of one hundred percent (100%) of the total contract price, in form and with security satisfactory to said COUNTY, then this obligation to be void; otherwise, to be and remain in full force and virtue in law; and the SURETY shall upon failure of the PRINCIPAL to comply with any or all of the foregoing requirements within the time specified above immediately pay to the COUNTY, upon demand the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

In the event suit is brought upon this Bond by the COUNTY and judgment is recovered, the SURETY shall pay all costs incurred by the COUNTY in such suit, including attorney's fees to be fixed by the Court.

Enclosed is a Bid Bond in the approved form, in the amount of _____
_____Dollars
($_____) being in the amount of five percent (5%) of the Contract Sum. The money payable on this bond shall be paid to the COUNTY, for the failure of the Bidder to execute a Contract within ten (10) days after receipt of the Contract and at the same time furnish a Payment Bond and Performance Bond.

(SIGNATURES ON NEXT PAGE)

IN TESTIMONY THEREOF, the PRINCIPAL and SURETY have caused these presents to be duly signed and sealed this _____day of _____, 20__

ATTEST:

_____
PRINCIPAL

_____ BY_____

(SEAL)

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as principal in the within bond; that _____, who signed the said bond of said corporation; that I know this signature, and his/her signature thereto is genuine; and that said bond was duly signed, sealed and attested for in behalf of said Corporation by authority of its governing body.

_____
SECRETARY

(CORPORATE SEAL)

_____
SURETY

_____ BY_____
(SEAL)

END OF SECTION

PURCHASING FORMS & INSTRUCTIONS

This section contains the procurement forms that are required to be executed and submitted with the bid package. This section does not contain all forms required to be included with the bid package submittal.

To be deemed responsive to this ITB, Bidders must provide the information requested and complete in detail all Purchasing Forms. The appropriate individual(s) authorized to commit the Bidder to the Project must sign the Purchasing Forms. Bidders should reproduce each Purchasing Form, as required, and complete the appropriate portions of the forms provided in this section.

- Form A: Non-Collusion Affidavit of Prime Bidder/Offeror
- Form B: Certificate of Acceptance of Request for Bid/Proposal Requirements
- Form C: Professional License Certifications
  - Form C2 – Georgia General Contractors License
  - Form C3 – Georgia Professional License
- Form D: Certification Regarding Debarment
- Form E: Disclosure Form and Questionnaire
- Form F: Georgia Security and Immigration Contractor Affidavit and Agreement
- Form G: Georgia Security and Immigration Subcontractor Affidavit
- OSHA Certificate for Superintendent – 40 Hour Requirement
- Contractor Warranty Form-submit standard contractor warranty information
- Installer Warranty Form-submit installer warranty for two (2) years

Failure to submit all required submittals may deem your proposal non-responsive.

FORM A: NON-COLLUSION AFFIDAVIT OF BIDDER/OFFEROR

STATE OF GEORGIA

COUNTY OF FULTON

I, _____ certify that pursuant to Fulton County Code Section 2-320 (11), this bid or proposal is made without prior understanding, agreement or connection with any corporation, firm or person submitting a bid for the same work, labor or service to be done or the supplies, materials or equipment to be furnished 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 damages awards. I agree to abide by all conditions of this bid or proposal and certify that I am authorized to sign this bid or proposal for the bidder.

Affiant further states that pursuant to O.C.G.A. Section 36-91-21 (d) and (e), _____ has not, by itself or with others, directly or indirectly, prevented or attempted to prevent competition in such bidding or proposals by any means whatsoever. Affiant further states that (s)he has not prevented or endeavored to prevent anyone from making a bid or offer on the project by any means whatever, nor has Affiant caused or induced another to withdraw a bid or offer for the work.

Affiant further states that the said offer of _____ is bona fide, and that no one has gone to any supplier and attempted to get such person or company to furnish the materials to the bidder only, or if furnished to any other bidder, that the material shall be at a higher price.

_____
(COMPANY NAME)

_____
(PRESIDENT/VICE PRESIDENT)

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

_____
(SECRETARY/ASSISTANT SECRETARY)

(Affix corporate seal here, if a corporation)

Notary Public: _____

County: _____

Commission Expires: _____

NOTE:

IF THE OFFEROR IS A PARTNERSHIP, ALL OF THE PARTNERS AND ANY OFFICER, AGENT, OR OTHER PERSON WHO MAY HAVE REPRESENTED OR ACTED FOR THEM IN BIDDING FOR OR PROCURING THE CONTRACT SHALL ALSO MAKE THIS OATH.

IF THE OFFEROR IS A CORPORATION, ALL OFFICERS, AGENTS, OR OTHER PERSONS WHO MAY HAVE ACTED FOR OR REPRESENTED THE CORPORATION IN BIDDING FOR OR PROCURING THE CONTRACT SHALL MAKE THE OATH.

FORM B: FULTON COUNTY CERTIFICATE OF ACCEPTANCE OF BID/PROPOSAL REQUIREMENTS

This Is To Certify That On This Day Bidder/Proposer Acknowledges That He/She Has Read This Bid Document, Pages _____ To _____ Inclusive, Including Addendum(s) ____ To ____, And/Or Appendices ____ To ____, In Its Entirety, And Agrees That No Pages Or Parts Of The Document Have Been Omitted, That He/She Understands, Accepts And Agrees To Fully Comply With The Requirements Therein, And That The Undersigned Is Authorized By The Bidding/Proposing Company To Submit The Bid/Proposal Herein And To Legally Obligate The Bidder/Proposer Thereto.

Company: _____

Signature: _____

Name: _____

Title: _____

Date: _____

(Corporate Seal)

FORM C1: CONTRACTOR'S GEORGIA UTILITY LICENSE CERTIFICATION
(NON-APPLICABLE FOR THIS PROJECT)

Contractor's Name: _____

Utility Contractor's Name: _____

Expiration Date of License: _____

I certify that the above information is true and correct and that the classification noted is applicable to the Bid for this Project.

Signed: _____

Date: _____

(ATTACH COPY OF LICENSE)

NOT APPLICABLE

FORM C2: CONTRACTOR'S GEORGIA GENERAL CONTRACTOR'S LICENSE CERTIFICATION

Contractor's Name: _____

General Contractor's License Number: _____

Expiration Date of License: _____

I certify that the above information is true and correct and that the classification noted is applicable to the Bid for this Project.

Signed: _____

Date: _____

(ATTACH COPY OF LICENSE)

FORM C3: GEORGIA PROFESSIONAL LICENSE CERTIFICATION

NOTE: Please complete this form for the work your firm will perform on this project.

Contractor's Name: _____

Performing work as: Prime Contractor ____ Sub-Contractor _____

Professional License Type: _____

Professional License Number: _____

Expiration Date of License: _____

I certify that the above information is true and correct and that the classification noted is applicable to the Bid for this Project.

Signed: _____

Date: _____

(ATTACH COPY OF LICENSE)

FORM D: CERTIFICATION REGARDING DEBARMENT

(1) The Offeror certifies that neither it or its subcontractors is presently debarred, suspended, proposed for debarment, declared ineligible, or otherwise excluded from doing business with any government agency. Any such exclusion may cause prohibition of your firm from participating in any procurement by the Fulton County Government.

(2) If the Offeror is unable to certify to any of the statements in this certification, such Offeror or subcontractor shall attach an explanation to this bid or proposal.

INSTRUCTIONS FOR CERTIFICATION

By signing and submitting this certification, the Offeror is providing the certification set out below:

(1) The certification in this clause is a material representation of fact upon which reliance will be placed. If it is later determined that the prospective vendor knowingly rendered a false certification, the Purchasing Agent may pursue all available remedies, including suspension and/or debarment, for withdrawal of award or termination of a contract.

(2) The prospective Offeror shall provide immediate written notice to the Purchasing Agent if at anytime the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(3) Offeror shall be under a continuing duty to immediately inform the Purchasing Agent in writing of any changes, if as a result of such changes, the Offeror certification regarding debarment is affected.

DEBARMENT ORDINANCE

The following Section 2-322 of Fulton County Code of Laws establishes the procedure for the debarment of contractors.

(a) ***Authority to suspend.***

After reasonable notice to the entity involved and reasonable opportunity for that entity to be heard, the Purchasing Agent, after consultation with user department, the County Manager and the County Attorney shall have the authority to suspend an entity for cause from consideration for award of county contracts. As used in this section, the term entity means any business entity, individual, firm, contractor, subcontractor or business corporation, partnership, limited liability corporation, firm, contractor, subcontractor or business structured; provided, further, that any such entity shall also be subject to suspension under this section if any of its constituents, members, subcontractors at any tier of such entity's and the entity, or any constituent or member, knew or should have known of the commission of the act. The suspension shall be for a period not to exceed three (3) years unless cause is based on a felony conviction for an offense related or associated with fraudulent contracting or misappropriation of funds wherein the suspension shall not exceed seven (7) years.

(b) ***Causes for Suspension. The causes for suspension include:***

(1) Conviction for commission of a criminal offense as an incident to obtain or attempting to obtain a public or private contract or subcontract, or in performance of such contract or subcontract;

(2) Conviction of state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property or other offense indicating a lack of business integrity or business honesty which currently, seriously and directly affects responsibility as a county contractor.

(3) Conviction of state or federal anti-trust statues arising out of the solicitation and submission of bids and proposals;

(4) Violation of contract provisions, as set forth below, of a character which is regarded by the Purchasing Agent to be so serious as to justify suspension action:

a. Failure to perform in accordance with the specifications within a time limit provided in a county contract;

b. A recent record of failure to perform or unsatisfactory performance in accordance with the terms of one or more contracts; provided, that failure to perform or unsatisfactory performance caused by acts beyond the control of the contractor shall not be considered to be a basis for suspension;

c. Material representation of the composition of the ownership or workforce or business entity certified to the county as a minority business enterprise; or

d. Falsification of any documents.

(5) For violation of the ethical standards set forth in Fulton County Code Chapter 9, Code of Ethics.

(6) Knowing misrepresentation to the county, of the use which a majority owned contractor intends to make a minority business enterprise (a business entity at least 51 percent of which is owned and controlled by minority persons, as defined in Fulton County Code Chapter 6, Article B, Minority Business Enterprise Affirmative Action Program and certified as such by the County) as a subcontractor or a joint venture partner, in performing work under contract with the County.

Failure to fully and truthfully provide the information required, may result in the disqualification of your bid/proposal from consideration or termination of the Contract, once awarded. This document must be completed and included as a part of the bid/proposal package along with other required documents.

[SIGNATURES ON NEXT PAGE]

Under penalty of perjury, I declare that I have examined this certification and all attachments hereto, if applicable, to the best of my knowledge and belief, and all statements contained hereto are true, correct, and complete.

On this _____ day of _____, 20__

_____
(Legal Name of Offeror) (Date)

_____
(Signature of Authorized Representative) (Date)

_____
(Title)

FORM E: DISCLOSURE FORM AND QUESTIONNAIRE

1. Please provide the names and business addresses of each of the Offeror's firm's officers and directors.

   For the purposes of this form, the term "Offeror" means an entity that responds to a solicitation for a County contract by either submitting a proposal in response to a Request for Proposal or a Request for Qualification or a Bid in response to an Invitation to Bid.

   Describe accurately, fully and completely, their respective relationships with said Offeror, including their ownership interests and their anticipated role in the management and operations of said Offeror.

2. Please describe the general development of said Offeror's business during the past five (5) years, or such shorter period of time that said Offeror has been in business.

3. Please state whether any employee, agent or representative of said Offeror who is or will be directly involved in the subject project has or had within the last five (5) years: (i) directly or indirectly had a business relationship with Fulton County; (ii) directly or indirectly received revenues from Fulton County; or (iii) directly or indirectly receives revenues from the result of conducting business on Fulton County property or pursuant to any contract with Fulton County. Please describe in detail any such relationship.

LITIGATION DISCLOSURE:

Failure to fully and truthfully disclose the information required, may result in the disqualification of your bid or proposal from consideration or termination of the Contract, once awarded.

1. Please state whether any of the following events have occurred in the last five (5) years with respect to said Offeror. If any answer is yes, explain fully the following:

   (a) whether a petition under the federal bankruptcy laws or state insolvency laws was filed by or against said Offeror, or a receiver fiscal agent or similar officer was appointed by a court for the business or property of said Offeror;

   (b) whether Offeror was subject of any order, judgment, or decree not subsequently reversed, suspended or vacated by any court of competent jurisdiction, permanently enjoining said Offeror from engaging in any type of business practice, or otherwise eliminating any type of business practice; and

   (c) whether said Offeror's business was the subject of any civil or criminal proceeding in which there was a final adjudication adverse to said or Offeror, which directly arose from activities conducted by the business unit or corporate division of said Offeror which submitted a bid or proposal for the subject project. If so please explain.

2. Have you or any member of your firm or team to be assigned to this engagement been indicted or convicted of a criminal offense within the last five (5) years?

   Circle One: YES NO

3. Have you or any member of your firm or team ever been terminated (for cause or otherwise) from any work being performed for Fulton County or any other Federal, State or Local Government?

   Circle One: YES NO

4. Have you or any member of your firm or team been involved in any claim or litigation adverse to Fulton County or any other Federal, State or Local Government, or private entity during the last three (3) years?

   Circle One: YES NO

5. Has any offeror, member of offeror's team, or officer of any of them (with respect to any matter involving the business practices or activities of his or her employer), been notified within the five (5) years preceding the date of this offer that any of them are the target of a criminal investigation, grand jury investigation, or civil enforcement proceeding?

   Circle One: YES NO

If you have answered "YES" to any of the above questions, please indicate the name(s) of the person(s), the nature, and the status and/or outcome of the information, indictment, conviction, termination, claim or litigation, the name of the court and the file or reference number of the case, as applicable. Any such information should be provided on a separate page, attached to this form and submitted with your proposal.

NOTE: If any response to any question set forth in this questionnaire has been disclosed in any other document, a response may be made by attaching a copy of such disclosure. (For example, said Offeror's most recent filings with the Securities and Exchange Commission ("SEC") may be provided if they are responsive to certain items within the questionnaire.) However, for purposes of clarity, Offeror should correlate its responses with the exhibits by identifying the exhibit and its relevant text.

Disclosures must specifically address, completely respond and comply with all information requested and fully answer all questions requested by Fulton County. Such disclosure must be submitted at the time of the bid or proposal submission and included as a part of the bid/proposal submitted for this project. Disclosure is required for Offerors, joint venture partners and first-tier subcontractors.

Failure to provide required disclosure, submit officially signed and notarized documents or respond to any and all information requested/required by Fulton County can result in the bid/proposal declared as non-responsive. This document must be completed and included as a part of the bid/proposal package along with other required documents.

[SIGNATURES ON NEXT PAGE]

Under penalty or\f perjury, I declare that I have examined this questionnaire and all attachments hereto, if applicable, to the best of my knowledge and belief, and all statements contained hereto are true, correct, and complete.

On this _____ day of _____, 20__

_____
(Legal Name of Proponent) (Date)

_____
(Signature of Authorized Representative) (Date)

_____
(Title)

Sworn to and subscribed before me,

this _____ day of _____, 20__

_____
(Notary Public) (Seal)

Commission Expires _____
(Date)

FORM F: GEORGIA SECURITY AND IMMIGRATION CONTRACTOR AFFIDAVIT AND AGREEMENT

Instructions:

Contractors must attest to compliance with the requirements of O.C.G.A 13-10-91 and the Georgia Department of Labor Rule 300-10-01-.02 by executing the Contractor Affidavit provided.

STATE OF GEORGIA

COUNTY OF FULTON

FORM F: GEORGIA SECURITY AND IMMIGRATION CONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with **[insert name of prime contractor]** _____ on behalf of **Fulton County Government** has registered with and is participating in a federal work authorization program* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services to this contract with **Fulton County Government**, contractor will secure from such subcontractor(s) similar verification of compliance with O.C.G.A/ 13-10-91 on the Subcontractor Affidavit provided in Rule 300-10-01-.08 or a substantially similar form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the **Fulton County Government** at the time the subcontractor(s) is retained to perform such service.

_____
EEV/Basic Pilot Program* User Identification Number

_____
BY: Authorized Officer of Agent
(Insert Subcontract Name)

_____
Title of Authorized Officer or Agent of Subcontractor

_____
Printed Name of Authorized Officer or Agent

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

Notary Public: _____

County: _____

Commission Expires: _____

NOTE:

*** As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is the "EEV/Basic Pilot Program" operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA).**

FORM G: GEORGIA SECURITY AND IMMIGRATION SUBCONTRACTOR AFFIDAVIT

Instructions:

In the event that your company is awarded the contract for this project, and will be utilizing the services of any subcontractor(s) in connection with the physical performance of services pursuant to this contract, the following affidavit must be completed by such subcontractor(s). Your company must provide a copy of each such affidavit to Fulton County Government, Department of Purchasing & Contract Compliance with the proposal submittal.

All subcontractor affidavit(s) shall become a part of the contract and all subcontractor(s) affidavits shall be maintained by your company and available for inspection by Fulton County Government at any time during the term of the contract. All subcontractor(s) affidavit(s) shall become a part of any contractor/subcontractor agreement(s) entered into by your company.

STATE OF GEORGIA

COUNTY OF FULTON

FORM G: GEORGIA SECURITY AND IMMIGRATION SUBCONTRACTOR AFFIDAVIT

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with **[insert name of prime contractor]** _____behalf of **Fulton County Government** has registered with and is participating in a federal work authorization program* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

_____
EEV/Basic Pilot Program* User Identification Number

_____
BY: Authorized Officer of Agent
(Insert Subcontract Name)

_____
Title of Authorized Officer or Agent of Subcontractor

_____
Printed Name of Authorized Officer or Agent

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

Notary Public: _____

County: _____

Commission Expires: _____

NOTE:

*** As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is the "EEV/Basic Pilot Program" operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA).**

OSHA Certificate for Superintendent – 40 Hour Requirement

Contractor's Name: _____

Expiration Date of Certificate:_____

I certify that the above information is true and correct and that the classification noted is applicable to the Bid for this Project.

Signed: _____

Date: _____

(ATTACH COPY OF CERTIFICATE)

CONTRACT COMPLIANCE REQUIREMENTS

NON-DISCRIMINATION IN PURCHASING AND CONTRACTING

It is the policy of Fulton County Government that discrimination against businesses by reason of the race, color, gender or national origin of the ownership of any such business is prohibited. Furthermore, it is the policy of the Board of Commissioners ("Board") that Fulton County and all vendors and contractors doing business with Fulton County shall provide to all businesses the opportunity to participate in contracting and procurement paid, in whole or in part, with monetary appropriations of the Board without regard to the race, color, gender or national origin of the ownership of any such business. Similarly, it is the policy of the Board that the contracting and procurement practices of Fulton County should not implicate Fulton County as either an active or passive participant in the discriminatory practices engaged in by private contractors or vendors seeking to obtain contracts with Fulton County.

Implementation of Equal Employment Opportunity (EEO) Policy

The County effectuates Equal Employment Opportunity thru Policy #800-8, Non-Discrimination in Contracting and Procurement. This policy considers racial and gender workforce availability. The availability of each workgroup is derived from the work force demographics set forth in the 2000 Census EEO file prepared by the United States Department of Commerce for the applicable labor pool normally utilized for the contract.

Monitoring of EEO Policy

Upon award of a contract with Fulton County, the successful bidder/proposer must complete an Equal Employment Opportunity Report (EEOR), describing the racial and gender make-up of the firm's work force. If the EEOR indicates that the firm's demographic composition indicates underutilization of employee's of a particular ethnic group for each job category, the firm will be required to submit an aggressive action plan setting forth steps the firm will take to address the identified underutilization.

DETERMINATION OF GOOD FAITH EFFORTS

During the course of the project, the Prime Contractor shall demonstrate that they have made all efforts reasonably possible to ensure that Minority and Female Business Enterprises (MFBE) have had a full and fair opportunity to compete and win subcontracts on this project. The Prime Contractor is required to include all outreach attempts that would demonstrate a "Good Faith Effort" in the solicitation of sub-consultants/subcontractors.

Written documentation demonstrating the Prime Contractor's outreach efforts to identify, contact, contract with or utilize Minority or Female owned businesses shall include holding pre-bid conferences, publishing advertisements in general circulation media, trade association publications, minority-focused media, and the County's bid board, as well as other efforts.

Include a list of publications where the advertisement was placed as well as a copy of the advertisement. Advertisement shall include at a minimum, scope of work, project location, location(s) of where plans and specifications may be viewed or obtained and trade or scopes of work for which subcontracts are being solicited.

EQUAL BUSINESS OPPORTUNITY PLAN (EBO PLAN)

In addition to the proposal submission requirements, each vendor **must** submit an Equal Business Opportunity Plan (EBO Plan) with their bid/proposal. The EBO Plan is designed to enhance the utilization of a particular racial, gender or ethnic group by a bidder/proposer, contractor, or vendor or by Fulton

County. The respondent **must** outline a plan of action to encourage and achieve diversity and equality in the available procurement and contracting opportunities with *this solicitation*.

The EBO Plan **must** identify and include:

1. Potential opportunities within the scope of work of *this solicitation* that will allow for participation of racial, gender or ethnic groups.

2. Efforts that will be made by the bidder/proposer to encourage and solicit minority and female business utilization in *this solicitation*.

Fulton County encourages joint ventures, teaming, partnering and mentor-protégé relationships with minority and female businesses in an effort to achieve contracting and procurement diversity.

Prompt Payment: The prime contractor **must** certify in writing and **must** document all subcontractors, sub-consultants and suppliers have been promptly paid for work and materials, (less any retainage by the prime contractor prior to receipt of any further progress payments). In the event the prime contractor is unable to pay subcontractors, sub-consultants or suppliers until it has received a progress payment from Fulton County, the prime contractor shall pay all subcontractors, sub-consultants or suppliers funds due from said progress payment within forty-eight (48) hours of receipt of payment from Fulton County. In no event shall a subcontractor, sub-consultant or supplier be paid later than fifteen (15) days as provided for by state law.

REQUIRED FORMS AND EBO PLAN

In order to be compliant with the intent and provisions of the Fulton County Non-Discrimination in Purchasing and Contracting Ordinance (99-0960), bidders/proposers **must** submit the following completed documents. Failure to provide this information **shall** result in the proposal being deemed non-responsive.

- Exhibit A – Promise of Non-Discrimination
- Exhibit B – Employment Report
- Exhibit C – Schedule of Intended Subcontractor Utilization
- Exhibit D – Letter of Intent to Perform as a Subcontractor or Provide Materials or Services
- Exhibit E – Declaration Regarding Subcontractors Practices
- Exhibit F – Joint Venture Disclosure Affidavit
- Equal Business Opportunity Plan (EBO Plan). This document is not a form rather a statement created by the bidder/proposer on its company letter head addressing the EBO Plan requirements.
- Exhibit H – First Source Jobs Program Information, Form 2

The following document must be completed as instructed if awarded the project:

- Exhibit G – Prime Contractor's Subcontractor Utilization Report
- Exhibit H – First Source Jobs Program Agreement, Form 3

All Contract Compliance documents (Exhibits A – H and EBO Plan) are to be placed in a **separate sealed envelope** clearly marked "Contract Compliance". The EBO Plan must be submitted on company letterhead. These documents are considered part of and should be submitted with the Technical Proposal.

EXHIBIT A – PROMISE OF NON-DISCRIMINATION

"Know all persons by these presents, that I/We (_____),
Name

_____ _____
Title Firm Name

Hereinafter "Company", in consideration of the privilege to bid on or obtain contracts funded, in whole or in part, by Fulton County, hereby consent, covenant and agree as follows:

1) No person shall be excluded from participation in, denied the benefit of, or otherwise discriminated against on the basis of race, color, national origin or gender in connection with any bid submitted to Fulton County for the performance of any resulting there from,

2) That it is and shall be the policy of this Company to provide equal opportunity to all businesses seeking to contract or otherwise interested in contracting with this Company without regard to the race, color, gender or national origin of the ownership of this business,

3) That the promises of non-discrimination as made and set forth herein shall be continuing in nature and shall remain in full force and effect without interruption,

4) That the promise of non-discrimination as made and set forth herein shall be made a part of, and incorporated by reference into, any contract or portion thereof which this Company may hereafter obtain,

5) That the failure of this Company to satisfactorily discharge any of the promises of non-discrimination as made and set forth herein shall constitute a material breach of contract entitling the Board to declare the contract in default and to exercise any and all applicable rights and remedies, including but not limited to cancellation of the contract, termination of the contract, suspension and debarment from future contracting opportunities, and withholding and/or forfeiture of compensation due and owning on a contract; and

6) That the bidder shall provide such information as may be required by the Director of Contract Compliance pursuant to Section 4.4 of the Fulton County Non-Discrimination in Purchasing and Contracting Ordinance.

SIGNATURE:_____

ADDRESS:_____

_____

TELEPHONE NUMBER:_____

EXHIBIT B – EMPLOYMENT REPORT

The demographic employment make-up for the bidder must be identified and submitted with this bid/proposal. In addition, if subcontractors will be utilized by the bidder/proposer to complete this project, then the demographic employment make-up of the subcontractor(s) must be identified and submitted with this bid.

JOB CATEGORIES	**TOTAL EMPLOYED**		**TOTAL MINORITIES**		WHITE (Not Hispanic Origin)		BLACK or AFRICAN AMERICAN (Not of Hispanic Origin)		HISPANIC or LATINO		AMERICAN INDIAN or ALASKAN NATIVE (AIAN)		ASIAN		NATIVE HAWAIIAN or OTHER PACIFIC ISLANDER (NHOP)		TWO or MORE RACES	
	M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
EXECUTIVE/SENIOR LEVEL OFFICIALS and MANAGERS																		
FIRST/MID LEVEL OFFICIALS and MANAGERS																		
PROFESSIONALS																		
TECHNICIANS																		
SALES WORKERS																		
ADMINISTRATIVE SUPPORT WORKERS																		
CRAFT WORKERS																		
OPERATIVES																		
LABORERS & HELPERS																		
SERVICE WORKERS																		
TOTAL																		

FIRMS'S NAME _____

ADDRESS _____

TELEPHONE _____

This completed form is for (Check only one): _____ Bidder/Proposer _____ Subcontractor

Submitted by: _____ Date Completed: _____

EXHIBIT C - SCHEDULE OF INTENDED SUBCONTRACTOR UTILIZATION

If the bidder/proposer intends to subcontract any portion of this scope of work/service(s), this form **must be** completed and **submitted with the bid/proposal.** All prime bidders/proposers **must** include Letter(s) of Intent (Exhibit D) in the bid document for all subcontractors who will be utilized under the scope of work/services.

Prime Bidder/Proposer:_____

ITB/RFP Number:_____

Project Name or Description of Work/Service(s):_____

_____

_____

1. My firm, as Prime Bidder/Proposer on this scope of work/service(s) is_____is not___a minority or female owned and controlled business enterprise. (Please indicate below the portion of work, including, percentage of bid/proposal amount that your firm will carry out directly):

   _____

   _____

2. If the Prime Bidder/Proposer is a Joint Venture, please complete Exhibit F: Joint Venture Disclosure Affidavit and attach a copy of the executed Joint Venture Agreement.

3. Sub-Contractors (including suppliers) to be utilized in the performance of this scope of work/service(s), if awarded, are:

SUBCONTRACTOR NAME:_____
ADDRESS:_____
_____
PHONE:_____
CONTACT PERSON:_____
ETHNIC GROUP*:_____COUNTY CERTIFIED**_____
WORK TO BE PERFORMED:_____
_____
DOLLAR VALUE OF WORK: $_____ PERCENTAGE VALUE:_____%

***Ethnic Groups: African American (AABE); Asian American (ABE); Hispanic American (HBE); Native American (NABE); White Female American (WFBE); **If yes, please attach copy of recent certification.**

SUBCONTRACTOR NAME:_____
ADDRESS:_____
_____
PHONE:_____
CONTACT PERSON:_____
ETHNIC GROUP*:_____COUNTY CERTIFIED**_____
WORK TO BE PERFORMED:_____
_____
DOLLAR VALUE OF WORK: $_____ PERCENTAGE VALUE:____%

SUBCONTRACTOR NAME:_____
ADDRESS:_____
_____
PHONE:_____
CONTACT PERSON:_____
ETHNIC GROUP*:_____COUNTY CERTIFIED**_____
WORK TO BE PERFORMED:_____
_____
DOLLAR VALUE OF WORK: $_____ PERCENTAGE VALUE:____%

SUBCONTRACTOR NAME:_____
ADDRESS:_____
_____
PHONE:_____
CONTACT PERSON:_____
ETHNIC GROUP*:_____COUNTY CERTIFIED**_____
WORK TO BE PERFORMED:_____
_____
DOLLAR VALUE OF WORK: $_____ PERCENTAGE VALUE:____%

SUBCONTRACTOR NAME:_____
ADDRESS:_____
_____
PHONE:_____
CONTACT PERSON:_____
ETHNIC GROUP*:_____COUNTY CERTIFIED**_____
WORK TO BE PERFORMED:_____
_____
DOLLAR VALUE OF WORK: $_____ PERCENTAGE VALUE:____%

***Ethnic Groups: African American (AABE); Asian American (ABE); Hispanic American (HBE); Native American (NABE); White Female American (WFBE); **If yes, please attach copy of recent certification.**

Total Dollar Value of Subcontractor Agreements: ($)

Total Percentage Value: (%)

CERTIFICATION: The undersigned certifies that he/she has read, understands and agrees to be bound

by the Bid/Proposer provisions, including the accompanying Exhibits and other terms and conditions regarding sub-contractor utilization. The undersigned further certifies that he/she is legally authorized by the Bidder/Proposer to make the statement and representation in this Exhibit and that said statements and representations are true and correct to the best of his/her knowledge and belief. The undersigned understands and agrees that if any of the statements and representations are made by the Bidder/Proposer knowing them to be false, or if there is a failure of the intentions, objectives and commitments set forth herein without prior approval of the County, then in any such event the Contractor's acts or failure to act, as the case may be, shall constitute a material breach of the contract, entitling the County to terminate the Contract for default. The right to so terminate shall be in addition to, and in lieu of, any other rights and remedies the County may have for other defaults under the contract.

Signature:_____**Title**:_____

Firm or Corporate Name:_____

Address:_____

_____

Telephone: ( )_____

Fax Number: ( )_____

Email Address:_____

EXHIBIT D

LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR OR PROVIDE MATERIALS OR SERVICES

This form **must** be completed by **ALL** known subcontractor and submitted with the bid/proposal. The Prime Contractor **must** submit Letters of Intent for **ALL** known subcontractors at time of bid submission.

To:_____
(Name of Prime Contractor Firm)

From:_____
(Name of Subcontractor Firm)

ITB/RFP Number:_____

Project Name:_____

The undersigned is prepared to perform the following described work or provide materials or services in connection with the above project (specify in detail particular work items, materials, or services to be performed or provided):

Description of Work	Project Commence Date	Project Completion Date	Estimated Dollar Amount

_____	_____
(Prime Bidder)	**(Subcontractor)**
Signature_____	**Signature**_____
Title_____	**Title**_____
Date_____	**Date**_____

EXHIBIT E - DECLARATION REGARDING SUBCONTRACTING PRACTICES

If the bidder/proposer **does not intend to subcontract** any portion of the scope of work services(s), this form **must be** completed and submitted with the bid/proposal.

_____hereby declares that it is my/our intent to
(Bidder)

perform 100% of the work required for_____
(ITB/RFP Number)

_____
(Description of Work)

In making this declaration, the bidder/proposer states the following:

1. That the bidder/proposer does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform **all elements** of the work on this project with his/her own current work forces;

2. If it should become necessary to subcontract some portion of the work at a later date, the bidder/proposer will comply with all requirements of the County's Non-Discrimination Ordinance in providing equal opportunities to all firms to subcontract the work. The determination to subcontract some portion of the work at a later date shall be made in good faith and the County reserves the right to require additional information to substantiate a decision made by the bidder/proposer to subcontract work following the award of the contract. Nothing contained in this provision shall be employed to circumvent the spirit and intent of the County's Non-Discrimination Ordinances;

3. The bidder will provide, upon request, information sufficient for the County to verify Item Number one.

AUTHORIZED COMPANY REPRESENTATIVE

Name:_____ **Title:**_____ **Date:**_____

Signature:_____

Firm:_____

Address:_____

Phone Number:_____

Fax Number:_____

Email Address:_____

EXHIBIT F - JOINT VENTURE DISCLOSURE AFFIDAVIT

ITB/RFP No._____

Project Name_____

This form must be completed and submitted with the bid/proposal if a joint venture approach is to be undertaken.

In order to evaluate the extent of small, minority and female business involvement being proposed by a Bidder/Proposer, certain relevant information must be provided prior to contract award. The information requested below is to clearly identify and explain the extent of small business participation in the proposed joint venture. All items must be properly addressed before the business entity can be evaluated.

1. Firms:

1) **Name of Business:**_____
Street Address:_____
Telephone No.:_____
Nature of Business:_____

2) **Name of Business:**_____
Street Address:_____
Telephone No.:_____
Nature of Business:_____

3) **Name of Business:**_____
Street Address:_____
Telephone No.:_____
Nature of Business:_____

NAME OF JOINT VENTURE (If applicable):_____

ADDRESS:_____

_____

PRINCIPAL OFFICE:_____

OFFICE PHONE:_____

Note: Attach additional sheets as required

1. Describe the capital contributions by each joint venturer and accounting thereof.

2. Describe the financial controls of the joint venture, e.g., will a separate cost center be established? Which venturer will be responsible for keeping the books? How will the expense therefore be reimbursed? What is the authority of each joint venture to commit or obligate the order?

3. Describe any ownership, options for ownership, or loans between the joint ventures. Identify terms thereof.

4. Describe the estimated contract cash flow for each joint venturer.

5. To what extent and by whom will the on-site work be supervised?

6. To what extent and by whom will the administrative office be supervised?

7. Which joint venturer will be responsible for material purchases including the estimated cost thereof? How will the purchase be financed?

8. Which joint venturer will provide equipment? What is the estimated cost thereof? How will the equipment be financed?

9. Describe the experience and business qualifications of each joint venturer.

10. Submit a copy of all joint venture agreements and evidence of authority to do business in the State of Georgia as well as locally, to include all necessary business licenses.

11. Percent of Minority/Female Business Enterprises ownership by each joint venture in terms of profit and loss sharing:_____

12. The authority of each joint venturer to commit or obligate the other:_____

13. Number of personnel to be involved in project, their crafts and positions and whether they are employees of the Minority/Female Business Enterprises enterprise, the majority firm or the joint venture: _____

14. Identification of control and participation in venture; list those individuals who are responsible for day-to-day management and policy decision-maker, including, but not limited to, those with prime responsibility for areas designated below; (use additional sheets if necessary)

Name	Race	Sex	Financial Decisions	Supervision Field Operation
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

In connection with any work that these firms, as a joint venture, might be authorized to perform in connection with above captioned contract, we each do hereby authorize representatives of the Fulton County Department of Contract Compliance, Departments of Purchasing and Contract Compliance, and Finance, under the direction of the County Manger's Office, to examine, from time to time, the books, records and files to the extent that such relate to this County project.

WE DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THE FOREGOING DOCUMENT ARE TRUE AND CORRECT, AND THAT WE ARE AUTHORIZED, ON BEHALF OF THE ABOVE FIRMS, TO MAKE THIS AFFIDAVIT AND GRANT THE ABOVE PRIVILEGE.

FOR_____
(Company)

Date:_____ _____
(Signature of Affiant)

_____
(Printed Name)

_____
(Company)

Date:_____ _____
(Signature of Affiant)

_____
(Printed Name)

State of_____**:**

County of_____**:**

On this _____ day of _____, 20___, before me, appeared _____, the undersigned officer, personally appeared _____ known to me to be the person described in the foregoing Affidavit and acknowledges that he (she) executed the same in the capacity therein stated and for the purpose therein contained.

EXHIBIT – G PRIME CONTRACTOR/SUB-CONTRACTOR UTILIZATION REPORT

This report **must** be submitted by the **tenth day** of each month, along with a copy of your monthly invoice (schedule of values/payment application) to Contract Compliance. Failure to comply **shall** result in the County commencing proceedings to impose sanctions to the prime contractor, in addition to pursuing any other available legal remedy. Sanctions may include the suspending of any payment or part thereof, termination or cancellation of the contract, and the denial of participation in any future contracts awarded by Fulton County.

REPORTING PERIOD		**PROJECT NAME:**	
FROM:		**PROJECT NUMBER:**	
TO:		**PROJECT LOCATION:**	

PRIME CONTRACTOR		**Contract Award Date**	**Contract Award Amount**	**Change Order Amount**	**Contract Period**	**% Complete to Date**
Name:						
Address:						
Telephone #:						

AMOUNT OF REQUISITION THIS PERIOD: $_____
TOTAL AMOUNT REQUISITION TO DATE: $_____
TOTAL AMOUNT REQUISITION TO DATE: $_____

SUBCONTRACTOR UTILIZATION (add additional rows as necessary)

Name of Sub-Contractor	**Description of Work**	**Contract Amount**	**Amount Paid To Date**	**Amount Requisition This Period**	**Contract Period Starting Date**	**Ending Date**
TOTALS						

Executed By: _____ _____
(Signature) *(Printed Name)*

Notary: _____ **Date:** _____

My Commission Expires: _____

Should you have questions regarding any of the documents contained in Section 00430, please feel free to contact the Office of Contract Compliance at (404) 612-6300, for further assistance.

EXHIBIT H

FULTON COUNTY FIRST SOURCE JOBS PROGRAM

STATEMENT OF POLICY:

It is the policy of Fulton County Government to provide employment opportunities to the citizens of Fulton County. This policy will apply to all contracts procured through the Department of Purchasing & Contract Compliance valued in excess of $200,000. The Prime Contractor is expected to utilize the First Source Jobs Program to fill 50% of the entry level jobs which arise as a result of any project funded in whole or in part with County funds with residents of Fulton County.

PURPOSE:

The purpose of this policy is to create a pool of employable persons who are residents of Fulton County to be called upon as a source to fill jobs created as a result of any eligible project funded in whole or in part with County funds in order to provide stable economic opportunities for families throughout the County. The First Source Jobs Program will be implemented by the Department of Purchasing & Contract Compliance and the Office of Workforce Development.

MONITORING POLICY:

Upon execution of a contract with Fulton County Government, the First Source Jobs Agreement (FSJ Form 2) will become a part of the contract between the bidder/proposer and Fulton County Government. The First Source Jobs Program will be monitored during routine site visits by the Office of Contract Compliance along with the Office of Workforce Development.

FORM 1

FULTON COUNTY

First Source Jobs Program Information

Company Name: _____

Project Number: _____

Project Name: _____

The following entry-level positions will become available as a result of the above referenced contract with Fulton County.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Include a job description and all required qualifications for each position listed above.

Identify a company representative and contact phone number who will be responsible for coordinating with the First Source Jobs Program:

Company Representative: _____

Phone Number: _____

Email Address: _____

FORM 2

FULTON COUNTY
First Source Jobs Program Agreement

Awarded Contractor's Name: _____

Formal Contract Name: _____

RFP/ITB Number: _____

Contact Person: _____

Contact Phone: _____

The contractor listed above agrees to the following:

1. The contractor shall make a good faith effort to fill 50% of the entry level position(s) created by this project using the Fulton County First Source Jobs Program.

2. The contractor shall provide the applicable details of every entry level job in writing within the required form.

3. The contractor shall be expected to present documentation that confirms employment terms to both the employee and Fulton County.

The Office of Contract Compliance will assist with monitoring the participation of First Source Jobs Program employees during routine site visits and report findings to the Office of Workforce Development for confirmation and follow-up. The Office of Workforce Development shall notify the Director of Human Services and the Purchasing Agent of any determination of non-compliance with the requirements of this policy and recommend a resolution or action to be taken.

Upon a determination by the Purchasing Agent and the Director of Human Services that a contractor has failed to comply with any portion of this policy, the County may impose the following:

1. Ten percent (10%) of all future payments under the involved eligible project shall be entitled to be withheld from a contractor that has violated this policy until the contractor complies with the provisions of this policy.

The undersigned agrees to the terms and conditions set forth in this agreement.

Contractor's Official Title: _____ Date: _____

Contractor's Name: _____

Contractor's Signature: _____

FORM 3

Insurance and Risk Management Provisions
Carnes Justice Center Building Wall Panel (Phase II)

It is Fulton County Government's practice to obtain Certificates of Insurance from our Contractors and Vendors. Insurance must be written by a licensed agent in a company licensed to write insurance in the State of Georgia, with an A.M. Best rating of at least A- VI, subject to final approval by Fulton County. Respondents shall submit with the bid/proposal evidence of insurability satisfactory to Fulton County Government as to form and content. Either of the following forms of evidence is acceptable:

- A letter from an insurance carrier stating that upon your firm/company being the successful Bidder/Respondent that a Certificate of Insurance shall be issued in compliance with the Insurance and Risk Management Provisions outlined below.
- A Certificate of Insurance complying with the Insurance and Risk Management Provisions outlined below (Request for Bid/Proposal number and Project Name, Number and Description must appear on the Certificate of Insurance).
- A combination of a specific policy written with an umbrella policy covering liabilities in excess of the required limits is acceptable to achieve the applicable insurance coverage levels.

Upon award, the Contractor/Vendor must maintain at their expense, insurance with policy limits equal to or greater than the limits described below. Proof of insurance must be provided to Fulton County Government prior to the start of any activities/construction as described in the bid document(s). Any and all Insurance Coverage(s) and Bonds required under the terms and conditions of the contract shall be maintained during the entire length of the contract, including any extensions or renewals thereto, and until all work has been completed to the satisfaction of Fulton County Government.

Accordingly the Respondent shall provide a certificate evidencing the following:

1. **WORKERS COMPENSATION/EMPLOYER'S LIABILITY INSURANCE – STATUTORY (In compliance with the Georgia Workers Compensation Acts, including but not limited to U.S. Longshoremen and Harbor Workers Act and any other State or Federal Acts or Provisions in which jurisdiction may be granted)**
2.

Employer's Liability Insurance	BY ACCIDENT	EACH ACCIDENT	$500,000
Employer's Liability Insurance	BY DISEASE	POLICY LIMIT	$500,000
Employer's Liability Insurance	BY DISEASE	EACH EMPLOYEE	$500,000

To include U.S. Longshoremen and Harbor Workers Act

2. **COMMERCIAL GENERAL LIABILITY INSURANCE (Including contractual Liability Insurance)**

Bodily Injury and Property Damage Liability	Each Occurrence	$1,000,000
(Other than Products/Completed Operations)	General Aggregate	$2,000,000
Products\Completed Operation	Aggregate Limit	$2,000,000
Personal and Advertising Injury	Limits	$1,000,000
Fire Damage	Limits	$100,000

**General Liability Policy to include the following:

- Per Project/Location Aggregate and Completed Operations for 3 Years after final payment.
- Policy to provide evidence of X, C, U coverage.
- Policy to have no exclusion for demolition work.

3. BUSINESS AUTOMOBILE LIABILITY INSURANCE
Combined Single Limits Each Occurrence $1,000,000
(Including operation of non-owned, owned, and hired automobiles).
Broadened Pollution Endorsement CA9948 and MCS 90

4. UMBRELLA LIABILITY Per Occurrence/Aggregate $3,000,000/$3,000,000

5. CONTRACTORS POLLUTION LIABILITY Each Occurrence $1,000,000
Or by endorsement to General Liability Policy for sudden and accidental
If Pollution provided by General Liability Endorsement and sudden and accidental, Completed Operations would not be a requirement.

- Should asbestos/lead abatement and removal operations be required by this contract, Must provide the following coverages: Pollution Policy to provide asbestos/lead abatement coverage on an Occurrence basis; Professional E&O and Umbrella coverage.
- Abatement operations to be performed by a qualified state licensed abatement contractor.
- To include three (3) years of extended Completed Operations coverage or a three (3) year extended reporting period.

6. BUILDERS' RISK: To be written on a Builders Risk "All-risk" form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism, malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than caused by flood), and such other perils or causes of loss as may be specifically required by Supplementary Conditions) until Final Completion and Acceptance of the Project. Such policy of insurance shall contain at least the following sub-limits of insurance and deductibles:

Sub-limits:	
Property in Transit	$1,000,000
Property in Offsite Storage	$1,000,000
Plans & Blueprints	$25,000
Debris Removal	25% of Insured Physical Loss
Delay in Completion / Soft Cost	TBD
Ordinance of Law (Increased Cost of Construction)	$1,000,000
Flood and Earthquake	Full Contract Value

Deductibles:

Flood and Earthquake	$25,000
Water Damage other than Flood	$100,000
All other Perils	$10,000

Owner and Contractor waive all rights against each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Section, or other property insurance applicable to the Work, accept such rights as they have to the proceeds of such insurance.

The policy will name Fulton County, The Contractor and Subcontractors of all tiers as Insureds under the policy.

Certificates of Insurance

Certificates shall state that the policy or policies shall not expire, be cancelled or altered without at least forty-five (45) days prior written notice to Fulton County Government. Policies and Certificates of Insurance are to list Fulton County Government as an Additional Insured (except for Workers' Compensation) and shall conform to all terms and conditions (including coverage of the indemnification and hold harmless agreement) contained in the Insurance and Risk Management Provisions. The General Liability Additional Insured language should apply to on-going and completed-operations, using ISO form CG 2010 (11/85 version) or equivalent.

This insurance for the additional insureds shall be as broad as the coverage provided for the named insured Contractor. It shall apply as Primary Insurance before any other insurance or self-insurance, including any deductible, non-contributory, and Waiver of Subrogation provided to the Additional Insureds.

If Fulton County Government shall so request, the Respondent, Contractor or Vendor will furnish the County for its inspection and approval such policies of insurance with all endorsements, or confirmed specimens thereof certified by the insurance company to be true and correct copies.

Additional Insured under the General Liability, Auto Liability, Umbrella Policies (with exception of Workers Compensation and Professional Liability), with no Cross Suits exclusion.

Important:
It is understood that **Insurance in no way Limits the Liability of the Contractor/Vendor.**

USE OF PREMISES

Contractor/Vendor shall confine its apparatus, the storage of materials and the operations of its workers to limits/requirements indicated by law, ordinance, permits and any restrictions of Fulton County Government and shall not unreasonably encumber the premises with its materials.

PROTECTION OF PROPERTY

Contractor/Vendor will adequately protect its own work from damage, will protect Fulton County Government's property from damage or loss and will take all necessary precautions during the progress of the work to protect all persons and the property of others from damage or loss.

Contractor/Vendor shall take all necessary precautions for the safety of employees of the work and shall comply with all applicable provisions of the Federal, State and local safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the premises where work is being performed.

Contractor/Vendor shall erect and properly maintain at all times as required by the conditions and progress of the work, all necessary safeguards for the protection of its employees, Fulton County Government employees and the public and shall post all applicable signage and other warning devices t protect against potential hazards for the work being performed.

INDEMNIFICATION AND HOLD HARMLESS AGREEMENT

To the fullest extent of the Law, Contractor/Vendor hereby agrees to release, indemnify, defend and hold harmless Fulton County, its Commissioners, officers, employees, subcontractors, successors, assigns and agents, from and against any and all losses (including death), claims, damages, liabilities, costs and expenses (including but not limited to all actions, proceedings, or investigations in respect thereof and any costs of judgments, settlements, court costs, attorney's fees or expenses, regardless of the outcome of any such action, proceeding, or investigation), caused by, relating to, based upon or arising out of any act or omission by Contractor/Vendor, its directors, officers, employees, subcontractors, successors, assigns or agents, or otherwise in connection (directly or indirectly) with its acceptance, or the performance, or nonperformance, of its obligations under these agreements. Such obligations shall not be construed to negate, abridge or otherwise reduce any other rights or obligations of indemnity which would otherwise exist as to any party or person as set forth in this paragraph.

Contractor/Vendor's obligation to protect, defend, indemnify and hold harmless, as set forth hereinabove, shall also include, but is not limited to, any matter arising out of any actual or alleged infringement of any patent, trademark, copyright, or service mark, or other actual or alleged unfair competition disparagement of product or service, or other tort or any type whatsoever, or any actual or alleged violation of trade regulations.

Contractor/Vendor further agrees to protect, defend, indemnify and hold harmless Fulton County, its Commissioners, officers, employees, subcontractors, successors, assigns and agents from and against any and all claims or liability for compensation under the Worker's Compensation Act, Disability Benefits Act, or any other employee benefits act arising out of injuries sustained by any employees of Contractor/Vendor. These indemnities shall not be limited by reason of the listing of any insurance coverage.

If the bid/quotation involves construction services Contractor/Vendor will be responsible fully for any and all damage to the work during the course of construction, until the point of Final acceptance by Fulton County.

FULTON COUNTY ACKNOWLEDGES THAT ALL PROVISIONS OF THIS INDEMNITY AGREEMENT MAY NOT BE APPLICABLE TO THE CONTRACTOR/VENDOR'S BUSINESS. TO THE EXTENT THAT CONTRACTOR/VENDOR MAY DEMONSTRATE SUCH NONAPPLICABILITY, FULTON COUNTY MAY NEGOTIATE AMENDMENTS TO THIS AGREEMENT AS THE CIRCUMSTANCES DICTATE.

CONTRACTOR/VENDOR ACKNOWLEDGES HAVING READ, UNDERSTANDING, AND AGREEING TO COMPLY WITH THIS INDEMNIFICATION AND HOLD HARMLESS AGREEMENT, AND THE REPRESENTATIVE OF THE CONTRACTOR/VENDOR IDENTIFIED BELOW IS AUTHORIZED TO SIGN CONTRACTS ON BEHALF OF THE RESPONDING CONTRACTOR/VENDOR.

COMPANY: _____ SIGNATURE: _____

NAME:_____TITLE:_____

DATE: _____

OWNER - CONTRACTOR AGREEMENT

#11ITB78822K-JD-Carnes Justice Center Building Wall Panel Evaluation Part II

Contractor: _____ Project No. _____

Address: _____ Telephone: _____

Contact: _____ Facsimile: _____

THIS AGREEMENT is effective as of the _____ day of _____, 20 , by and between Fulton County, a political subdivision of the State of Georgia (hereinafter called the "County"), and the above named CONTRACTOR in accordance with all provisions of this Construction agreement, consisting of the following Contract Documents:

General Conditions
Special Conditions
Bid Form
Scope of Work and Technical Specifications
Drawings and Specifications
Exhibits
Purchasing Forms
Office of Contract Compliance Forms
Risk Management Insurance Provisions Forms

WITNESSETH: That the said Contractor has agreed, and by these presents does agree with the said County, for and in consideration of a Contract Price of _____($_____) and other good and valuable consideration, and under the penalty expressed on Bonds hereto attached, to furnish all equipment, tools, materials, skill, and labor of every description necessary to carry out and complete in good, firm, and substantial, and workmanlike manner, the Work specified, in strict conformity with the Drawings and the Specifications hereinafter set forth, which Drawings and Specifications together with the bid submittals made by the Contractor, General Conditions, Special Provisions, Detailed Specifications, Exhibits, and this Agreement, shall all form essential parts of this Contract. The Work covered by this Contract includes all Work indicated on Plans and Specifications and listed in the Bid entitled:

Project Number: [INSERT PROJECT #]

Carnes Justice Center Building Wall Panel Evaluation Part II

The Contractor shall commence the Work with adequate force and equipment within 10 days from receipt of Notice to Proceed from the County, and shall complete the work within xxx calendar days from the Notice to Proceed or the date work begins, whichever comes first. The Contractor shall remain responsible for performing, in accordance with the terms of the contract, all work assigned prior to the expiration of the said calendar days allowed for completion of the work even if the work is not completed until after the expiration of such days.

*[**Insert if applicable** For each calendar day that any work remains uncompleted after the time allowed for completion of the work, the Contractor shall pay the County the sum of $ 500.00 not as a penalty but as liquidated damages, which liquidated damages the County may deduct from any money due the contractor. At the County's convenience and not to it prejudice the County may provide written notice of the commencement of the assessment of liquidated damages].*

Sample Contract

As full compensation for the faithful performance of this Contract, the County shall pay the Contractor in accordance with the General Conditions and the prices stipulated in the Bid, hereto attached.

It is further mutually agreed between the parties hereto that if, at any time after the execution of this Agreement and the Surety Bonds hereto attached for its faithful performance, the County shall deem the surety or sureties upon such bonds to be unsatisfactory, or, if, for any reason, such bonds cease to be adequate to cover the performance of the Work, the Contractor shall, at his expense, within five days after receipt of notice from the County so to do, furnish an additional bond or bonds in such form and amount, and with such surety or sureties as shall be satisfactory to the County. In such event no further payment to the Contractor shall be deemed to be due under this Agreement until such new or additional security for the faithful performance of the Work shall be furnished in manner and form satisfactory to the County.

The Contractor hereby assumes the entire responsibility and liability for any and all injury to or death of any and all persons, including the Contractor's agents, servants, and employees, and in addition thereto, for any and all damages to property caused by or resulting from or arising out of any act or omission in connection with this contract or the prosecution of work hereunder, whether caused by the Contractor or the Contractor's agents, Servants, or employees, or by any of the Contractor's subcontractors or suppliers, and the Contractor shall indemnify and hold harmless the County, the Construction Manager, or any of their subcontractors from and against any and all loss and/or expense which they or any of them may suffer or pay as a result of claims or suits due to, because of, or arising out of any and all such injuries, deaths and/or damage, irrespective of County or Construction Manager negligence (except that no party shall be indemnified for their own sole negligence). The Contractor, if requested, shall assume and defend at the Contractor's own expense, any suit, action or other legal proceedings arising there from, and the Contractor hereby agrees to satisfy, pay, and cause to be discharged of record any judgment which may be rendered against the County and the Construction Manager arising there from.

In the event of any such loss, expense, damage, or injury, or if any claim or demand for damages as heretofore set forth is made against the County or the Construction Manager, the County may withhold from any payment due or thereafter to become due to the Contractor under the terms of this Contract, an amount sufficient in its judgment to protect and indemnify it and the Construction Manager from any and all claims, expense, loss, damages, or injury; and the County, in its discretion, may require the Contractor to furnish a surety bond satisfactory to the County providing for such protection and indemnity, which bond shall be furnished by the Contractor within five (5) days after written demand has been made therefore. The expense of said Bond shall be borne by the Contractor. **[See General Conditions for similar provisions]**

This Contract constitutes the full agreement between the parties, and the Contractor shall not sublet, assign, transfer, pledge, convey, sell or otherwise dispose of the whole or any part of this Contract or his right, title, or interest therein to any person, firm or corporation without the previous consent of the County in writing. Subject to applicable provisions of law, this Contract shall be in full force and effect as a Contract, from the date on which a fully executed and approved counterpart hereof is delivered to the Contractor and shall remain and continue in full force and effect until after the expiration of any guarantee period and the Contractor and his sureties are finally released by the County.

This agreement was approved by the Fulton County Board of Commissioner on [Insert approval date and item number].

[SIGNATURES NEXT PAGE]

Sample Contract

IN WITNESS THEREOF, the Parties hereto have caused this Contract to be executed by their duly authorized representatives as attested and witnessed and their corporate seals to be hereunto affixed as of the day and year date first above written.

OWNER:

FULTON COUNTY, GEORGIA

John H. Eaves, Commission Chair
Board of Commissioners

ATTEST:

Mark Massey
Clerk to the Commission (Seal)

APPROVED AS TO FORM:

Office of the County Attorney

APPROVED AS TO CONTENT:

[Insert Department Head Name]
[Insert Department Head Title]

CONTRACTOR:

[Insert Contractor COMPANY NAME]

[Insert Name & Title of person authorized to sign contract]

ATTEST:

Secretary/
Assistant Secretary

(Affix Corporate Seal)

Sample Contract

END OF SECTION

PERFORMANCE BOND

No contract with Fulton County for work to be done shall be valid for any purpose unless the Contractor provides a Performance Bond with good and sufficient surety payable to, in favor of, and for the protection of Fulton County. The Performance Bond shall be in the amount of 100% of the total contract amount, payable by the terms of the Contract, and shall be written on the following form.

Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business as a surety in Georgia.

Attestation for the corporation must be by the corporate officer; for a partnership by another partner; for an individual by a notary with the corporate seal.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS that _____
(Insert name of Contractor)
(hereinafter called the "Principal") and _____(hereinafter called the
(Insert name of Surety)
"Surety"), are held and firmly bound unto **FULTON COUNTY**, a political subdivision of the State of Georgia (hereinafter called the "Owner"), its successors and assigns, in the penal sum of _____*[100% of Contract amount]*, lawful money of the United States of America, for the payment of which the Principal and the Surety bind themselves, their administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered, or is about to enter, into a certain written contract with the Owner, dated _____, which is incorporated herein by reference in its entirety (hereinafter called the "Contract"), for construction-type services of a project known as **#11ITB78822K-JD-Carnes Justice Center Building Wall Panel Evaluation Part II**, as more particularly described in the Contract (hereinafter called the "Project");

NOW, THEREFORE, the conditions of this obligation are as follows, that if the Principal shall fully and completely perform all the undertakings, covenants, terms, conditions, warranties, and guarantees contained in the Contract, including all modifications, amendments, changes, deletions, additions, and alterations thereto that may hereafter be made, then this obligation shall be void; otherwise it shall remain in full force and effect.

Whenever the Principal shall be, and declared by the Owner to be, in default under the Construction-Type Contract, the Surety shall promptly remedy the default as follows:

1. Complete the Contract in accordance with its terms and conditions; or, at the sole option of the Owner,

2. Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by the Surety and the Owner of the lowest responsible bidder, arrange for a contract between such bidder and Owner and make available as the work progresses (even though there should be a default or succession of defaults under the Contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the penal sum set forth in the first paragraph hereof, as may be adjusted, and the Surety shall make available and pay to the Owner the funds required by this Paragraph prior to the payment of the Owner of the balance of the contract price, or any portion thereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by the Owner to the Contractor under the Contract, and any amendments thereto, less the amount paid by the Owner to the Contractor; or, at the sole option of the Owner,

3. Allow Owner to complete the work and reimburse the Owner for all reasonable costs incurred in completing the work.

In addition to performing as required in the above paragraphs, the Surety shall indemnify and hold harmless the Owner from any and all losses, liability and damages, claims, judgments, liens, costs and fees of every description, including reasonable attorney's fees, litigation costs and expert witness fees, which the Owner may incur, sustain or suffer by reason of the failure or default on the part of the Principal in the performance of any or all of the terms, provisions, and requirements of the Contract, including any and all amendments and modifications thereto, or

incurred by the Owner in making good any such failure of performance on the part of the Principal.

The Surety shall commence performance of its obligations and undertakings under this Bond promptly and without delay, after written notice from the Owner to the Surety.

The Surety hereby waives notice of any and all modifications, omissions, additions, changes, alterations, extensions of time, changes in payment terms, and any other amendments in or about the Contract, and agrees that the obligations undertaken by this Bond shall not be impaired in any manner by reason of any such modifications, omissions, additions, changes, alterations, extensions of time, change in payment terms, and amendments.

The Surety hereby agrees that this Bond shall be deemed amended automatically and immediately, without formal or separate amendments hereto, upon any amendment to the Contract, so as to bind the Principal and the Surety to the full and faithful performance of the Contract as so amended or modified, and so as to increase the penal sum to the adjusted Contract Price of the Contract.

No right of action shall accrue on this Bond to or for the use of any person, entity or corporation other than the Owner and any other obligee named herein, or their executors, administrators, successors or assigns.

This Bond is intended to comply with O.C.G.A. Section 36-91-1 et seq., and shall be interpreted so; as to comply with; the minimum requirements thereof. However, in the event the express language of this Bond extends protection to; the Owner beyond that contemplated by O.C.G.A. Section 36-91-1 et seq. and O.C.G.A. Section 13-10-1, as amended, or any other statutory law applicable to this Project, then the additional protection shall be enforced in favor of the Owner, whether or not such protection is found in the applicable statutes.

IN WITNESS WHEREOF the undersigned have caused this instrument to be executed and their respective corporate seals to be affixed and attested by their duly authorized representatives this _____ day of _____, _____.

_____(SEAL)
(Principal)

By:_____

Attest:

_____
Secretary

_____(SEAL)
(Surety)

By:_____

Attest:

_____
Secretary

_____
(Address of Surety's Home Office)

_____
(Resident Agent of Surety)

END OF SECTION

PAYMENT BOND

No Contract with Fulton County for work to be done shall be valid for any purpose unless the Contractor provides a Payment Bond with good and sufficient surety payable to Fulton County for the use and protection of all sub-contractors and all persons supplying labor, materials, machinery, and equipment in the prosecution of the work provided for in the Contract. The Payment Bond shall be in the amount of 100% of the total contract amount, payable by the terms of the Contract, and shall be written on the following form.

Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Georgia.

Attestation for the corporation must be by the corporate officer; for a partnership by another partner; for an individual by a notary with the corporate seal.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that _____
(Insert name of Contractor)
(hereinafter called the "Principal") and _____(hereinafter called the
(Insert name of Surety)
"Surety"), are held and firmly bound unto **FULTON COUNTY**, a political subdivision of the State of Georgia (hereinafter called the "Owner"), its successors and assigns as obligee, in the penal sum of _____*[100% of Contract amount]*, lawful money of the United States of America, for the payment of which the Principal and the Surety bind themselves, their administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered, or is about to enter, into a certain written contract with the Owner, dated _____, which is incorporated herein by reference in its entirety (hereinafter called the "Contract"), for construction-type services of a project known as **#11ITB78822K-JD-Carnes Justice Center Building Wall Panel Evaluation Part II**, as more particularly described in the Contract (hereinafter called the "Project");

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall promptly make payment to all persons working on or supplying labor or materials under the Contract, and any amendments thereto, with regard to labor or materials furnished and used in the Project, and with regard to labor or materials furnished but not so used, then this obligation shall be void; but otherwise it shall remain in full force and effect.

1. A "Claimant' shall be defined herein as any subcontractor, person, party, partnership, corporation or the entity furnishing labor, services or materials used, or reasonably required for use, in the performance of the Contract, without regard to whether such labor, services or materials were sold, leased or rented, and without regard to whether such Claimant is or is not in privity of contract with the Principal or any subcontractor performing work on the Project, including, but not limited to, the following labor, services, or materials: water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.

2. In the event a Claimant files a lien against the property of the Owner, and the Principal fails or refuses to satisfy or remove it promptly, the Surety shall satisfy or remove the lien promptly upon written notice from the Owner, either by bond or as otherwise provided in the Contract.

3. The Surety hereby waives notice of any and all modifications, omissions, additions, changes, alterations, extensions of time, changes in the payment terms, and any other amendments in or about the Contract and agrees that the obligations undertaken by this Bond shall not be impaired in any manner by reason of any such modifications, omissions, additions, changes, alterations, extensions of time, changes in payment terms, and amendments.

4. The Surety hereby agrees that this Bond shall be deemed amended automatically and immediately, without formal or separate amendments hereto, upon any amendment or modifications to the Contract, so as to bind the Principal and Surety, jointly and severally, to the full payment of any Claimant under the Contract, as amended or modified, provided only that the Surety shall not be liable for more than the penal sum of the Bond, as specified in the first paragraph hereof.

5. This Bond is made for the use and benefit of all persons, firms, and corporations who or which may furnish any materials or perform any labor for or on account of the

construction-type services to be performed or supplied under the Contract, and any amendments thereto, and they and each of them may sue hereon.

6. No action may be maintained on this Bond after one (1) year from the date the last services, labor, or materials were provided under the Contract by the Claimant prosecuting said action.

7. This Bond is intended to comply with O.C.G.A. Section 13-10-1, and shall be interpreted so as to comply with the minimum requirements thereof. However, in the event the express language of this Bond extends protection to the Owner beyond that contemplated by O.C.G.A. Section 13-10-1, or any other statutory law applicable to this Project, then the additional protection shall be enforced in favor of the Owner, whether or not such protection is found in the applicable statutes.

IN WITNESS WHEREOF the undersigned have caused this instrument to be executed and their respective corporate seals to be affixed and attested by their duly authorized representatives this _____ day of _____, _____.

_____(SEAL)
(Principal)

By:_____

Attest:

_____
Secretary

_____(SEAL)
(Surety)

By:_____

Attest:

_____
Secretary

_____
(Address of Surety's Home Office)

_____
(Resident Agent of Surety)

END OF SECTION

GENERAL CONDITIONS

GENERAL CONDITIONS:

00700-1 FAMILIARITY WITH SITE

Execution of this agreement by the Contractor is a representation that the Contractor has visited the site, has become familiar with the local conditions under which the work is to be performed, and has correlated personal observations with the requirements of this agreement.

00700-2 CONTRACT DOCUMENTS

This agreement consists of Owner's invitation for bid, instructions to bidders, bid form, performance bond, payment bond, acknowledgments, the contract, general conditions, special conditions, specifications, plans, drawings, exhibits, addenda, and written change orders.

A. Notice of Award of Contract:

B. Execution of Contract Documents

Upon notification of Award of Contract, the Owner shall furnish the Contractor the conformed copies of Contract Documents for execution by the Contractor and the Contractor's surety.

Within ten (10) days after receipt the Contractor shall return all the documents properly executed by the Contractor and the Contractor's surety. Attached to each document shall be an original power-of-attorney for the person executing the bonds for the surety and certificates of insurance for the required insurance coverage.

After receipt of the documents executed by the Contractor and his surety with the power-of-attorney and certificates of insurance, the Owner shall complete the execution of the documents. Distribution of the completed documents will be made upon completion.

Should the Contractor and/or Surety fail to execute the documents within the time specified; the Owner shall have the right to proceed on the Bid Bond accompanying the bid.

If the Owner fails to execute the documents within the time limit specified, the Contractor shall have the right to withdraw the Contractor's bid without penalty.

Drawings and Specifications:

The Drawings, Specifications, Contract Documents, and all supplemental documents, are considered essential parts of the Contract, and requirements occurring in one are as binding as though occurring in all. They are intended to define, describe and provide for all Work necessary to complete the Project in an acceptable manner, ready for use, occupancy, or operation by the Owner.

In case of conflict between the Drawings and Specifications, the Specifications shall govern. Figure dimensions on Drawings shall govern over scale dimensions, and detailed Drawings shall govern over general Drawings.

In cases where products or quantities are omitted from the Specifications, the description and quantities shown on the Drawings shall govern.

Any ambiguities or need for clarification of the Drawings or Specifications shall be immediately reported to the Construction Manager in writing. Any such ambiguity or need for clarification shall be handled by the Construction Manager in writing. No clarification of the Drawings and Specifications hereunder by the Construction Manager shall entitle the Contractor to any additional monies unless a Change Order has been processed as provided by "Changes in the Contract" hereof.

Any work done by the Contractor following a discovery of such differing site condition or ambiguity or need for clarification in the Contract Drawings and Specifications prior to a written report to the Construction Manager shall not entitle the Contractor to additional monies and shall be done at the Contractor's risk.

The Construction Manager will furnish the Contractor five (5) copies of the Contract Drawings and the Specifications, one copy of which the Contractor shall have available at all times on the Project site.

00700-3 DEFINITIONS

The following terms as used in this agreement are defined as follows to the extent the definitions herein differ or conflict with those in the Instructions for Bidders, Section 00100, the definitions herein shall control.

Alternate bids – the amount stated in the bid or proposal to be added to or deducted from the amount of the base bid or base proposal if the corresponding change in project scope or alternate materials or methods of construction is accepted.

Base bid – the amount of money stated in the bid or proposal as the sum for which the bidder or proposer offers to perform the work.

Change Order - an alteration, addition, or deduction from the original scope of work as defined by the contract documents to address changes or unforeseen conditions necessary for project completion. A written order to the Contractor issued by the County pursuant to Fulton County Policy and Procedures 800-6 for changes in the work within the general scope of the contract documents, adjustment of the contract price, extension of the contract time, or reservation of determination of a time extension.

Construction Manager or Engineer shall mean Fulton Construction Management Partners, the County authorized representative for this project.

Contractor shall mean the party of the second part to the Contract Agreement or the authorized and legal representative of such party.

Contract Documents include the Contract Agreement, Contractor's Bid (including all documentation accompanying the Bid and any post-Bid documentation required by the County prior to the Notice of Award), Bonds, all Special Conditions, General Conditions, Supplementary Conditions, Specifications, Drawings and addenda, together with written amendments, change orders, field orders and the Construction Manager's written interpretations and clarifications issued in accordance with the General Conditions on or after the date of the Contract Agreement.

Shop drawing submittals reviewed in accordance with the General Conditions, geotechnical investigations and soils report and drawings of physical conditions in or relating to existing surface structures at or contiguous to the site are not Contract Documents.

Contract Price - The sum specified in the Agreement to be paid to the Contractor in consideration of the Work.

Contract Time shall mean the number of consecutive calendar days as provided in the Contract Agreement for completion of the Work, to be computed from the date of Notice to Proceed.

Owner or County shall mean Fulton County Government, party of the first part to the Contract Agreement, or its authorized and legal representatives.

Day - A calendar day of twenty-four hours lasting from midnight of one day to midnight the next day.

Design Consultant shall mean the firm or corporation responsible for the detailed design drawings and specifications.

Director - Director of the Department of Public Works of Fulton County, Georgia or the designee thereof.

Final Completion shall mean the completion of all work as required in accordance with the terms and conditions of the contract documents.

Liquidated Damages shall mean the amount, stated in the Contract Agreement, which the Contractor agrees to pay to the Owner for each consecutive calendar day beyond the Contract time required to complete the Project or for failing to comply with associated milestones. Liquidated Damages will end upon written notification from the Owner of Final Acceptance of the Project or upon written notification of from the Owner of completion of the milestone.

Notice to Proceed - A written communication issued by the County to the Contractor authorizing it to proceed with the work, establishing the date of commencement and completion of the work, and providing other direction to the Contractor.

Products shall mean materials or equipment permanently incorporated into the work.

Program Manager - Not used in this contract. Delete all references.

Project Manual - The Contract Documents.

Provide shall mean to furnish and install.

Substantial Completion - The date certified by the Construction Manager when all or a part of the work, as established pursuant to General Condition 0700-81, is sufficiently completed in accordance with the requirements of the contract documents so that the identified portion of the work can be utilized for the purposes for which it is intended.

Work or Project - All of the services specified, indicated, shown or contemplated by the contract documents, and furnishing by the Contractor of all materials, equipment, labor, methods, processes, construction and manufacturing materials and equipment, tools, plans, supplies, power, water, transportation and other things necessary to complete such services in accordance with the contract documents to insure a functional and complete facility.

00700-4 CODES

All codes, specifications, and standards referenced in the contract documents shall be the latest editions, amendments and revisions of such referenced standards in effect as of the date of the request for proposals for this contract.

00700-5 REVIEW OF CONTRACT DOCUMENTS

Before making its proposal to the County, and continuously after the execution of the agreement, the Contractor shall carefully study and compare the contract documents and shall at once report to the Construction Manager any error, ambiguity, inconsistency or omission that may be discovered, including any requirement which may be contrary to any law, ordinance, rule, or regulation of any public authority bearing on the performance of the work. By submitting its proposal, the Contractor agrees that the contract documents, along with any supplementary written instructions issued by or through the Construction Manager that have become a part of the contract documents, appear accurate, consistent and complete insofar as can be reasonably determined. If the Contractor has timely reported in writing any error, inconsistency, or omission to the Construction Manager, has properly stopped the affected work until instructed to proceed, and has otherwise followed the instructions of the Construction Manager, the Contractor shall not be liable to the County for any damage resulting from any such error, inconsistency, or omission in the contract documents. The Contractor shall not perform any portion of the work without the contract documents, approved plans, specifications, products and data, or samples for such portion of the work. For purposes of this section "timely" is defined as the time period in which

the contractor discovers, or should have discovered, the error, inconsistency, or omission, with the exercise of reasonable diligence.

00700-6 STRICT COMPLIANCE

No observation, inspection, test or approval of the County or Construction Manager shall relieve the Contractor from its obligation to perform the work in strict conformity with the contract documents except as provided in General Condition 00700-48.

00700-7 APPLICABLE LAW

All applicable State laws, County ordinances, codes, and rules and regulations of all authorities having jurisdiction over the construction of the project shall apply to this agreement. The Contractor shall comply with the requirements of any Fulton County program concerning non-discrimination in contracting. All work performed within the right of way of the Georgia Department of Transportation and any railroad crossing shall be in accordance with Georgia Department of Transportation regulations, policies and procedures and, where applicable, those of any affected railroad. The Contractor shall comply with all laws, ordinances, codes, rules and regulations bearing on the conduct of the work as specified and the Contractor agrees to indemnify and hold harmless the County, its officers, agents and employees, as well as the Construction Manager and the Program Manager against any claim or liability arising from or based on the violation of any law, ordinance, regulation, order or decree affecting the conduct of the work, whether occasioned by the Contractor, his agents or employees.

00700-8 PERMITS, LICENSES AND BONDS

All permits and licenses necessary for the work shall be secured and paid for by the Contractor. If any permit, license or certificate expires or is revoked, terminated, or suspended as a result of any action on the part of the Contractor, the Contractor shall not be entitled to additional compensation or time. The Contractor shall obtain and keep in force at all times performance and payment bonds payable to Fulton County in penal amounts equal to 100% of the Contract price.

00700-9 TAXES

A. The Contractor shall pay all sales, retail, occupational, service, excise, old age benefit and unemployment compensation taxes, consumer, use and other similar taxes, as well as any other taxes or duties on the materials, equipment, and labor for the work provided by the Contractor which are legally enacted by any municipal, county, state or federal authority, department or agency at the time bids are received, whether or not yet effective. The Contractor shall maintain records pertaining to such taxes and levies as well as payment thereof and shall make the same available to the County at all reasonable times for inspection and copying. The Contractor shall apply for any and all tax exemptions which may be applicable and shall timely request from the County such documents and information as may be necessary to obtain such tax exemptions. The County shall have no liability to the Contractor for payment of any tax from which it is exempt.

B. The Contractor is obligated to comply with all local and State Sales and Use Tax laws. The Contractor shall provide the Owner with documentation to assist the Owner in obtaining sales and/or use tax refunds for eligible machinery and equipment used for the primary purpose of reducing or eliminating air or water pollution as provided for in Chapter 48-8-3 (36) and (37) of the Official Code of Georgia. All taxes shall be paid by the Contractor. All refunds will accrue to the Owner.

Acceptance of the project as complete and final payment will not be made by the Owner until the Contractor has fully complied with this requirement.

00700-10 DELINQUENT CONTRACTORS

The County shall not pay any claim, debt, demand or account whatsoever to any person firm or corporation who is in arrears to the County for taxes. The County shall be entitled to a counterclaim, back charge, and offset for any such debt in the amount of taxes in arrears, and no assignment or transfer of such debt after the taxes become due shall affect the right of the County to offset any taxes owed against said debt.

00700-11 LIEN WAIVERS

The Contractor shall furnish the County with evidence that all persons who have performed work or furnished materials pursuant to this agreement have been paid in full prior to submitting its demand for final payment pursuant to this agreement. A final affidavit, Exhibit A, must be completed, and submitted to comply with requirements of 00700-11. In the event that such evidence is not furnished, the County may retain sufficient sums necessary to meet all lawful claims of such laborers and material men. The County assumes no obligation nor in any way undertakes to pay such lawful claims from any funds due or that may become due to the Contractor.

00700-12 MEASUREMENT

All items of work to be paid for per unit of measurement shall be subject to inspection, measurement, and confirmation by the Construction Manager.

00700-13 ASSIGNMENT

The Contractor shall not assign any portion of this agreement or moneys due there from (include factoring of receivables) without the prior written consent of the County. The Contractor shall retain personal control and shall provide personal attention to the fulfillment of its obligations pursuant to this agreement. Any assignment without the express written consent of the County shall render this contract voidable at the sole option of the County.

00700-14 FOREIGN CONTRACTORS

In the event that the Contractor is a foreign corporation, partnership, or sole proprietorship, the Contractor hereby irrevocably appoints the Secretary of State of Georgia as its agent for service of all legal process for the purpose of this contract only.

00700-15 INDEMNIFICATION [there are two indemnification clauses, the other is in the Contract Cover Sheet]

The Contractor hereby assumes the entire responsibility and liability for any and all injury to or death of any and all persons, including the Contractor's agents, servants, and employees, and in addition thereto, for any and all damages to property caused by or resulting from or arising out of any act or omission in connection with this contract or the prosecution of work hereunder, whether caused by the Contractor or the Contractor's agents, servants, or employees, or by any of the Contractor's subcontractors or suppliers, and the Contractor shall indemnify and hold harmless the County, the Construction Manager and the Program Manager, or any of their subcontractors from and against any and all loss and/or expense which they or any of them may suffer or pay as a result of claims or suits due to, because of, or arising out of any and all such injuries, deaths and/or damage, irrespective of County or Construction Manager or Program

Manager negligence (except that no party shall be indemnified for their own sole negligence). The Contractor, if requested, shall assume and defend at the Contractor's own expense, any suit, action or other legal proceedings arising there from, and the Contractor hereby agrees to satisfy, pay, and cause to be discharged of record any judgment which may be rendered against the County, the Construction Manager and the Program Manager arising there from.

In the event of any such loss, expense, damage, or injury, or if any claim or demand for damages as heretofore set forth is made against the County or the Construction Manager or the Program Manager, the County may withhold from any payment due or thereafter to become due to the Contractor under the terms of this Contract, an amount sufficient in its judgment to protect and indemnify it and the Construction Manager and the Program Manager from any and all claims, expense, loss, damages, or injury; and the County, in its discretion, may require the Contractor to furnish a surety bond satisfactory to the County providing for such protection and indemnity, which bond shall be furnished by the Contractor within five (5) days after written demand has been made therefore. The expense of said Bond shall be borne by the Contractor.

00700-16 SUPERVISION OF WORK AND COORDINATION WITH OTHERS

The Contractor shall supervise and direct the work using the Contractor's best skill and attention. The Contractor shall be solely responsible for all construction methods and procedures and shall coordinate all portions of the work pursuant to the contract subject to the overall coordination of the Construction Manager. All work pursuant to this agreement shall be performed in a skillful and workmanlike manner.

The County reserves the right to perform work related to the Project with the County's own forces and to award separate contracts in connection with other portions of the project, other work on the site under these or similar conditions of the contract, or work which has been extracted from the Contractor's work by the County.

When separate contracts are awarded for different portions of the project or other work on the site, the term "separate contractor" in the Contract Documents in each case shall mean the contractor who executes each separate County Agreement.

The Contractor shall cooperate with the County and separate contractors in arranging the introduction and storage of materials and equipment and execution of their work, and shall cooperate in coordinating connection of its work with theirs as required by the Contract Documents.

If any part of the Contractor's Work depends for proper execution or results upon the work of the County or any separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Construction Manager any apparent discrepancies or defects in such other work that render it unsuitable for such proper execution and results **within fourteen (14) days** of discovery of such discrepancy or defect. Failure of the Contractor to so report in writing shall constitute an acceptance of the County's or separate contractor's work as fit and proper to receive the Work, except as to any defects which may subsequently become apparent in such work by others.

Any costs caused by defective or untimely work shall be borne by the party responsible therefore.

Should the Contractor wrongfully cause damage to the work or property of the County or to other work or property on the site, including the work of separate contractors, the Contractor shall promptly remedy such damage at the Contractor's expense.

Should the Contractor be caused damage by any other contractor on the Project, by reason of such other contractor's failure to perform properly his contract with the County, no action shall lie against the County or the Construction Manager inasmuch as the parties to this agreement are the only beneficiaries hereof and there are no third party beneficiaries and neither the County nor the Construction Manager shall have liabilities therefore, but the Contractor may assert his claim for damages solely against such other contractor. The Contractor shall not be excused from

performance of the contract by reason of any dispute as to damages with any other contractor or third party.

Where the Work of this Contract shall be performed concurrently in the same areas as other construction work, the Contractor shall coordinate with the Construction Manager and the separate contractors in establishing mutually acceptable schedules and procedures that shall permit all jobs to proceed with minimum interference.

If a dispute arises between the Contractor and separate contractors as to their responsibility for cleaning up, the County may clean up and charge the cost thereof to the Contractor or contractors responsible therefore as the County shall determine to be just.

00700-17 ADMINISTRATION OF CONTRACT

The Program Manager and the Construction Manager shall provide administration services as hereinafter described.

For the administration of this Contract, the Construction Manager shall serve as the County's primary representative during design and construction and until final payment to the Contractor is due. The Construction Manager shall advise and consult with the County and the Program Manager. The primary point of contact for the Contractor shall be the Construction Manager. All correspondence from the Contractor to the County shall be forwarded through the Construction Manager. Likewise, all correspondence and instructions to the Contractor shall be forwarded through the Construction Manager.

The Construction Manager will determine in general that the construction is being performed in accordance with design and engineering requirements, and will endeavor to guard the County against defects and deficiencies in the Work.

The Construction Manager will not be responsible for or have control or charge of construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, nor will it be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Construction Manager will not be responsible for or have control or charge over the acts or omissions of the Contractor, its engineers, consultants, subcontractors, or any of their agents or employees, or any other persons performing the Work.

Based on the Construction Manager's observations regarding the Contractor's Applications for Payment, the Construction Manager shall determine the amounts owing to the Contractor, in accordance with the payment terms of the Contract, and shall issue Certificates for Payment in such amount to the County.

The Construction Manager shall render interpretations necessary for the proper execution or progress of the Work. Either party to the Contract may make written requests to the Construction Manager for such interpretations.

Claims, disputes and other matters in question between the Contractor and the County relating to the progress of the Work or the interpretation of the Contract Documents shall be referred to the Construction Manager for interpretation.

All interpretations of the Construction Manager shall be consistent with the intent of and reasonably inferable from the Contract Documents and shall be in writing or in graphic form.

Except as otherwise provided in this Contract, the Construction Manager shall issue a decision on any disagreement concerning a question of fact arising under this Contract. The Construction Manager shall reduce the decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The decision of the Construction Manager shall be final and conclusive unless, within thirty (30) days from the date of receipt of such copy, the Contractor files a written appeal with the Director of Public Works and mails or otherwise furnishes the Construction Manager a copy of such appeal. The decision of the Director of Public Works or the Director's duly authorized

representative for the determination of such appeals shall be final and conclusive. Such final decision shall not be pleaded in any suit involving a question of fact arising under this Contract, provided such is not fraudulent, capricious, arbitrary, so grossly erroneous as necessarily implying bad faith, or is not supported by substantial evidence. In connection with any appeal proceeding under this Article, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of Contractor's appeal. Pending any final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract as directed by the Construction Manager.

The Construction Manager shall have authority to reject Work which does not conform to the Contract Documents. Whenever, in the Construction Manager's opinion, it is considered necessary or advisable for the implementation of the intent of the Contract Documents, the County shall have authority to require special inspection or testing of the Work whether or not such Work be then fabricated, installed or completed. The Contractor shall pay for such special inspection or testing if the Work so inspected or tested is found not to comply with the requirements of the contract; the County shall pay for special inspection and testing if the Work is found to comply with the contract. Neither the Construction Manager's authority to act under this Subparagraph, nor any decision made by the Construction Manager in good faith either to exercise or not to exercise such authority, shall give rise to any duty or responsibility of the Construction Manager to the Contractor, any subcontractor, any of their agents or employees, or any other person performing any of the Work.

The Contractor shall provide such shop drawings, product data, and samples as may be required by the Construction Manager and/or as required by these Contract Documents.

The Construction Manager shall conduct inspections to determine Substantial Completion and Final Completion, and shall receive and forward to the County for review written warranties and related documents required by the Contract Documents and assembled by the Contractor. The Construction Manager shall approve and issue Certificates for Payment upon compliance with Substantial and Final Completion requirements indicated in General Conditions 00700-81, 00700-82, 00700-84 and 00700-85 of this Agreement.

Except as provided in General Condition 00700-48, the Contractor shall not be relieved from the Contractor's obligations to perform the work in accordance with the contract documents by the activities or duties of the County or any of its officers, employees, or agents, including inspections, tests or approvals, required or performed pursuant to this agreement.

00700-18 RESPONSIBILITY FOR ACTS OF EMPLOYEES

The Contractor shall employ only competent and skilled personnel. The Contractor shall, upon demand from the Construction Manager, immediately remove any superintendent, foreman or workman whom the Construction Manager may consider incompetent or undesirable.

The Contractor shall be responsible to the County for the acts and omissions of the Contractor's employees, subcontractors, and agents as well as any other persons performing work pursuant to this agreement for the Contractor.

00700-19 LABOR, MATERIALS, SUPPLIES, AND EQUIPMENT

Unless otherwise provided in this agreement, the Contractor shall make all arrangements with necessary support agencies and utility companies provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the execution and completion of the work.

00700-20 DISCIPLINE ON WORK SITE

The Contractor shall enforce strict discipline and good order among its employees and subcontractors at all times during the performance of the work, to include compliance with the

Fulton County Drug Free Work Place Policy. The Contractor shall not employ any subcontractor who is not skilled in the task assigned to it. The Construction Manager may, by written notice, require the Contractor to remove from the work any subcontractor or employee deemed by the Construction Manager to be incompetent.

00700-21 HOURS OF OPERATION

All work at the construction site shall be performed during regular business hours of the Fulton County government, except upon the Construction Manager's prior written consent to other work hours. It is further understood that the Contractor's construction schedule is based on a normal 40 hours, five day work week, less Fulton County-recognized holidays. Contractors work schedule shall not violate Fulton County Noise Ordinance by working hours inconsistent with the Fulton County Noise Ordinance. The County's current noise ordinance or other applicable ordinance shall govern. If the Contractor desires to work in excess of this limit, the Contractor shall submit a written request to the Construction Manager, a minimum of five days prior to the desired work date. The Contractor shall be responsible for any additional expenses incurred by the Owner as a result of the extended work hours, including resident inspection overtime. The cost associated with resident inspector overtime shall be deducted form the Contractor monthly payment request.

00700-22 FAMILIARITY WITH WORK CONDITIONS

The Contractor shall take all steps necessary to ascertain the nature and location of the work and the general and local conditions which may affect the work or the cost thereof. The Contractor's failure to fully acquaint itself with the conditions which may affect the work, including, but not limited to conditions relating to transportation, handling, storage of materials, availability of utilities, labor, water, roads, weather, topographic and subsurface conditions, other separate contracts to be entered into by the County relating to the project which may affect the work of the Contractor, applicable provisions of law, and the character and availability of equipment and facilities necessary prior to and during the performance of the work shall not relieve the Contractor of its responsibilities pursuant to this agreement and shall not constitute a basis for an equitable adjustment of the contract terms. The County reserves the right to perform with its own forces or to contract with other entities for other portions of the project work, in which case the Contractor's responsibility to assure its familiarity with work conditions hereunder shall include all coordination with such other contractors and the County necessary to insure that there is no interference between contractors as will delay or hinder any contractor in its prosecution of work on the project. The County assumes no responsibility for any understandings or representations concerning conditions of the work made by any of its officers, agents, or employees prior to the execution of this agreement.

00700-23 RIGHT OF ENTRY

The County reserves the right to enter the site of the work by such agent, including the Construction Manager, as it may elect for the purpose of inspecting the work or installing such collateral work as the County may desire. The Contractor shall provide safe facilities for such access so that the County and its agents may perform their functions.

00700-24 NOTICES

Any notice, order, instruction, claim or other written communication required pursuant to this agreement shall be deemed to have been delivered or received as follows:

Upon personal delivery to the Contractor, its authorized representative, or the Construction Manager on behalf of the County. Personal delivery may be accomplished by in-person hand delivery or bona fide overnight express service.

Three days after depositing in the United States mail a certified letter addressed to the Contractor or the Construction Manager for the County. For purposes of mailed notices, the County's mailing address shall be 141 Pryor Street, 6th Floor, Atlanta, Georgia 30303, or as the County shall have otherwise notified the Contractor. The Contractor's mailing address shall be the address stated in its proposal or as it shall have most recently notified the Construction Manager in writing.

00700-25 SAFETY

A. SAFETY, HEALTH AND LOSS PREVENTION

The Contractor shall be responsible for implementing a comprehensive project-specific safety, health and loss prevention program and employee substance abuse program for this project. All Sub-Contractors must either implement their own program or follow the Contractor's safety, health and loss prevention program and employee substance abuse program.

The Contractor's safety, health and loss prevention program and employee substance abuse program must meet or exceed all governmental regulations (OSHA, EPA, DOT, State, local), and any other specific Fulton County requirements

B. COUNTY'S SAFETY, HEALTH, AND LOSS PREVENTION PROCESS GUIDELINES AND REQUIREMENTS

The County and its agents reserve the right, but assume no duty, to establish and enforce safety, health, and loss prevention guidelines and to make the appropriate changes in the guidelines, for the protection of persons and property and to review the efficiency of all protective measures taken by the Contractor. The Contractor shall comply with all safety, health, and loss prevention process guidelines and requirements and changes made by the County or its agent(s). The issuance of any such guidelines or changes by the County or its agent(s) shall not relieve the Contractor of its duties and responsibilities under this Agreement, and the County or its agent(s) shall not thereby assume, nor be deemed to have assumed, any such duties or responsibilities of the Contractor.

C. COMPLIANCE OF WORK, EQUIPMENT, AND PROCEDURES WITH ALL APPLICABLE LAWS and REGULATIONS

All Work, whether performed by the Contractor or its Sub-Contractors of any tier, or anyone directly or indirectly employed by any of them, and all equipment, appliances, machinery, materials, tools and like items incorporated or used in the Work, shall be in compliance with and conform to:

1. All applicable laws, ordinances, rules, regulations and orders of any public, quasi-public or other governmental authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to, the Federal Occupational Safety and Health Act of 1970, as amended, and all rules and regulations now or hereafter in effect pursuant to said Act.
2. All rules, regulations, and requirements of the County or its agent(s) and its insurance carriers relating there to. In the event of a conflict or differing requirements the more stringent shall govern.

D. PROTECTION OF THE WORK

1. The Contractor shall, throughout the performance of the Work, maintain adequate and continuous protection of all Work and temporary facilities against loss or damage from whatever cause, shall protect the property of the County and third parties from loss or damage from whatever cause arising out of the

performance of the Work, and shall comply with the requirements of the County or its agent(s) and its insurance carriers, and with all applicable laws, codes, rules and regulations, (as same may be amended) with respect to the prevention of loss or damage to property as a result of fire or other hazards.

2. The County or its agent(s) may, but shall not be required to, make periodic inspections of the Project work area. In such event, however, the Contractor shall not be relieved of its aforesaid responsibilities and the County or its agent(s) shall not assume, nor shall it be deemed to have assumed, any responsibility otherwise imposed upon the assurance of Contractor by this Agreement.

E. SAFETY EQUIPMENT

1. The Contractor shall provide to each worker on the Project work area the proper safety equipment for the duties being performed by that worker and will not permit any worker on the Project work area who fails or refuses to use the same. The County or its agent shall have the right, but not the obligation, to order the removal of a worker from the Project work site for his/her failure to comply with safe practices or substance abuse policies.

F. EMERGENCIES

1. In any emergency affecting the safety of persons or property, or in the event of a claimed violation of any federal or state safety or health law or regulation, arising out of or in any way connected with the Work or its performance, the Contractor shall act immediately to prevent threatened damage, injury or loss and to remedy said violation. Failing such action the County or its agent(s) may immediately take whatever steps it deems necessary including, but not limited to, suspending the Work as provided in this Agreement.

2. The County or its agent(s) may offset any and all costs or expenses of whatever nature, including attorneys' fees, paid or incurred by the County or its agent(s) (whether such fees are for in-house counsel or counsel retained by the County or its agent), in taking the steps authorized by Section 00700-25(G) (1) above against any sums then or thereafter due to the Contractor. The Contractor shall defend, indemnify and hold the County, its officers, agents, and employees harmless against any and all costs or expenses caused by or arising from the exercise by the County of its authority to act in an emergency as set out herein. If the Contractor shall be entitled to any additional compensation or extension of time change order on account of emergency work not due to the fault or neglect of the Contractor or its Sub-Contractors, such additional compensation or extension of time shall be determined in accordance with General Condition 00700-52 and General Condition 00700-87 of this Agreement.

G. SUSPENSION OF THE WORK

1. Should, in the judgment of the County or its agent(s), the Contractor or any Sub-Contractor fail to provide a safe and healthy work place, the County or its agent shall have the right, but not the obligation, to suspend work in the unsafe areas until deficiencies are corrected. All costs of any nature (including, without limitation, overtime pay, liquidated damages or other costs arising out of delays) resulting from the suspension, by whomsoever incurred, shall be borne by the Contractor.

2. Should the Contractor or any Sub-Contractor fail to provide a safe and healthy work place after being formally notified in writing by the County or its agents of such non-compliance, the contract may be terminated following the termination provision of the contract.

H. CONTRACTOR'S INDEMNITY OF THE COUNTY FOR CONTRACTOR'S NON-COMPLIANCE WITH SAFETY PROGRAM

1. The Contractor recognizes that it has sole responsibility to assure its Safety Program is implemented and to assure its construction services are safely provided. The Contractor shall indemnify, defend and hold the County and its agents harmless, from and against any and all liability (whether public or private), penalties (contractual or otherwise), losses, damages, costs, attorneys' fees, expenses, causes of action, claims or judgments resulting, either in whole or in part, from any failure of the Contractor, its Sub-Contractors of any tier or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, to comply with the safety requirements of the contract. The Contractor shall not be relieved of its responsibilities under the safety requirements of the Contract should the County or its agent(s) act or fail to act pursuant to its rights hereunder.

2. The Contractor shall not raise as a defense to its obligation to indemnify under this Subparagraph I any failure of those indemnified hereunder to assure Contractor operates safely, it being understood and agreed that no such failure shall relieve the Contractor from its obligation to assure safe operations or from its obligation to so indemnify. The Contractor also hereby waives any rights it may have to seek contribution, either directly or indirectly, from those indemnified hereunder.

3. In any and all claims against those indemnified hereunder by any employee of the Contractor, any Sub-Contractor of any tier or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Subparagraph I shall not be limited in any way as to the amount or type of damages, compensation or benefits payable by or for the Contractor or any Sub-Contractor of any tier under any workers' compensation act, disability benefit or other employee benefit acts.

00700-26 BLASTING AND EXCAVATION

The Contractor acknowledges that it is fully aware of the contents and requirements of O.C.G.A. § 25-9-1 through 25-9-12 concerning blasting and excavation near underground gas pipes and facilities and shall fully comply therewith.

00700-27 HIGH VOLTAGE LINES

The Contractor acknowledges that it is fully aware of the contents and requirements O.C.G.A. § 46-3-30 through 46-3-39 concerning safeguards against contact with high voltage lines, and the Contractor shall fully comply with said provisions.

00700-28 SCAFFOLDING AND STAGING

The Contractor acknowledges that it is the person responsible for employing and directing others to perform labor within the meaning of O.C.G.A. § 34-1-1 and agrees to comply with said provisions.

00700-29 CLEAN-UP

The Contractor shall clean up all refuse, rubbish, scrap materials, and debris caused by its operations to the end that the site of the work shall present a neat, orderly and workmanlike appearance at all times.

00700-30 PROTECTION OF WORK

The Contractor shall be responsible for maintenance and protection of the work, which shall include any County-furnished supplies, material, equipment, until final completion of this

agreement and acceptance of the work as defined herein. Any portion of the work suffering injury, damage or loss shall be considered defective and shall be corrected or replaced by the Contractor without additional cost to the County.

00700-31 REJECTED WORK

The Contractor shall promptly remove from the project all work rejected by the Construction Manager for failure to comply with the contract documents and the Contractor shall promptly replace and re-execute the work in accordance with the contract documents and without expense to the County. The Contractor shall also bear the expense of making good all work of other Contractors destroyed or damaged by such removal or replacement.

00700-32 DEFECTIVE WORK

If the Contractor defaults or neglects to carry out any portion of the work in accordance with the contract documents, and fails within three days after receipt of written notice from the Construction Manager to commence and continue correction of such default or neglect with diligence and promptness, the County may, after three days following receipt by the Contractor of an additional written notice and without prejudice to any other remedy the County may have, make good such deficiencies and complete all or any portion of any work through such means as the County may select, including the use of a separate Contractor. In such case, an appropriate change order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies. In the event the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the County on demand.

The County may, at its option, accept defective or nonconforming work instead of requiring its removal or correction. In such case, a change order shall be issued reducing the price due the contractor to the extent appropriate and equitable. Such contract price adjustment shall be effected whether or not final payment has been made.

00700-33 WARRANTY OF NEW MATERIALS

The Contractor warrants to the County that all materials and equipment furnished under this contract will be new unless otherwise specified, and the Contractor further warrants that all work will be of good quality, free from faults and defects, and in conformance with the contract documents. The warranty set forth in this paragraph shall survive final acceptance of the work.

00700-34 CONTRACTOR'S WARRANTY OF THE WORK

If within one year after the date of issuance of the certificate of final payment pursuant to General Condition 84, or within such longer period of time as may be prescribed by law or by the term of any applicable special warranty required by the contract documents, any of the work is found to be defective or not in accordance with the contract documents, the Contractor shall correct such work promptly after receipt of written notice from the Construction Manager to do so. This obligation shall survive both final payment for the work and termination of the contract.

00700-35 ASSIGNMENT OF MANUFACTURERS' WARRANTIES

Without limiting the responsibility or liability of the Contractor pursuant to this agreement, all warranties given by manufacturers on materials or equipment incorporated in the work are hereby assigned by the Contractor to the County. If requested, the Contractor shall execute formal assignments of said manufacturer's warranties to the County. All such warranties shall be directly enforceable by the County.

00700-36 WARRANTIES IMPLIED BY LAW

The warranties contained in this agreement, as well as those warranties implied by law, shall be deemed cumulative and shall not be deemed alternative or exclusive. No one or more of the warranties contained herein shall be deemed to alter or limit any other.

00700-37 STOP WORK ORDERS

In the event that the Contractor fails to correct defective work as required by the contract documents or fails to carry out the work in accordance with contract documents, the Construction Manager, in writing, may order the Contractor to stop work until the cause for such order has been eliminated. This right of the County to stop work shall not give rise to any duty on the part of the County or the Construction Manager to execute this right for the benefit of the Contractor or for any other person or entity.

00700-38 TERMINATION FOR CAUSE

If the Contractor is adjudged bankrupt, makes a general assignment for the benefit of creditors, suffers the appointment of a receiver on account of its insolvency, fails to supply sufficient properly skilled workers or materials, fails to make prompt payment to subcontractors or material men, disregards laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, fails to diligently prosecute the work, or is otherwise guilty of a material violation of this agreement and fails within seven days after receipt of written notice to commence and continue correction of such default, neglect, or violation with diligence and promptness, the County may, after seven days following receipt by the Contractor of an additional written notice and without prejudice to any other remedy the County may have, terminate the employment of the Contractor and take possession of the site as well as all materials, equipment, tools, construction equipment and machinery thereon. The County may finish the work by whatever methods the County deems expedient. In such case, the Contractor shall not be entitled to receive any further payment until the work is completed. If the unpaid balance of the contract price exceeds the cost of completing the work, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the County on demand. This obligation for payment shall survive the termination of the contract. Termination of this agreement pursuant to this paragraph may result in disqualification of the Contractor from bidding on future County contracts.

00700-39 TERMINATION FOR CONVENIENCE

The County may, at any time upon written notice to the Contractor, terminate the whole or any portion of the work for the convenience of the County. The effective data of the terminations shall be provided in the written notice. Said termination shall be without prejudice to any right or remedy of the County provided herein. In addition, in the event this agreement has been terminated due to the default of the Contractor, and if it is later determined that the Contractor was not in default pursuant to the provisions of this agreement at the time of termination, then such termination shall be considered a termination for convenience pursuant to this paragraph.

00700-40 TERMINATION FOR CONVENIENCE - PAYMENT

If the Contract is terminated for convenience by the Owner as provided in this article, Contractor will be paid compensation for those services actually performed as approved by the Owner or his representative. Partially completed tasks will be compensated for based on a signed statement of completion prepared by the Project Manager and submitted to the Contractor which shall itemize each task element and briefly state what work has been completed and what work remains to be

done. Contractor shall also be paid for reasonable costs for the orderly filing and closing of the project.

00700-41 TERMINATION FOR CONVENIENCE - PAYMENT LIMITATIONS

Except for normal spoilage, and except to the extent that the County shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor the fair value, as determined by the Construction Manager, of property which is destroyed, lost, stolen or damaged so as to become undeliverable to the County or to another buyer.

00700-42 COST TO CURE

If the County terminates for cause the whole or any part of the work pursuant to this agreement, then the County may procure upon such terms and in such manner as the Construction Manager may deem appropriate, supplies or services similar to those so terminated, and the Contractor shall be liable to the County for any excess costs for such similar supplies or services. The Contractor shall continue the performance of this agreement to the extent not terminated hereunder.

00700-43 ATTORNEY'S FEES

Should the Contractor default pursuant to any of the provisions of this agreement, the Contractor and its surety shall pay to the County such reasonable attorney's fees as the County may expend as a result thereof and all costs, expenses, and filing fees incidental thereto.

00700-44 CONTRACTOR'S RESPONSIBILITIES UPON TERMINATION

After receipt of a notice of termination from the County, and except as otherwise directed by the Construction Manager, the Contractor shall:

1. Stop work under the contract on the date and to the extent specified in the notice of termination;
2. Place no further orders or subcontracts for materials, services or facilities, except as may be necessary for completion of such portion of the work under the agreement as is not terminated;
3. Terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the notice of termination;
4. Assign to the County in the manner, at the times, and to the extent directed by the Construction Manager, all of the rights, title and interest of the Contractor under the orders and subcontracts so terminated, in which case the County shall have the right, at its discretion, to settle or pay any and all claims arising out of the termination of such orders or subcontracts;
5. Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts with the approval or ratification of the Construction Manager, to the extent the Construction Manager may require, which approval or ratification shall be final for all purposes;
6. Transfer title and deliver to the entity or entities designated by the Construction Manager, in the manner, at the times, and to the extent, if any, directed by the Construction Manager, and to the extent specifically produced or specifically

acquired by the Contractor for the performance of such portion of the work as has been terminated:

a. The fabricated or un-fabricated parts, work, and progress, partially completed supplies, and equipment, materials, parts, tools, dyes, jigs, and other fixtures, completed work, supplies, and other material produced as a part of or acquired in connection with the performance of the work terminated by the notice of termination; and

b. The completed or partially completed plans, drawings, information, and other property to the work.

7. Use its best efforts to sell in the manner, at the times, to the extent, and at the prices directed or authorized by the Construction Manager, any property described in Section 6 of this paragraph, provided, however, that the Contractor shall not be required to extend credit to any buyer and further provided that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the County to the Contractor pursuant to this agreement.

8. Complete performance of such part of the work as shall not have been terminated by the notice of termination; and

9. Take such action as may be necessary, or as the Construction Manager may direct, for the protection and preservation of the property related to the agreement which is in the possession of the Contractor and in which the County has or may acquire an interest.

00700-45 RECORDS

The Contractor shall preserve and make available to the County all of its records, books, documents and other evidence bearing on the costs and expenses of the Contractor and any subcontractor pursuant to this agreement upon three days advance notice to the Contractor.

00700-46 DEDUCTIONS

In arriving at any amount due the Contractor pursuant to the terms of this agreement, there shall be deducted all liquidated damages, advance payments made to the Contractor applicable to the termination portion of the contract, the amount of any claim which the County may have against the Contractor, the amount determined

By the Construction Manager to be necessary to protect the County against loss due to outstanding potential liens or claims, and the agreed price of any materials acquired or sold by the Contractor and not otherwise recovered by or credited to the County.

00700-47 REIMBURSEMENT OF THE COUNTY

In the event of termination, the Contractor shall refund to the County any amount paid by the County to the Contractor in excess of the costs properly reimbursable to the Contractor.

00700-48 SUSPENSION, INTERRUPTION, DELAY, DAMAGES

The Contractor shall be entitled to only those damages and that relief from termination by the County as specifically set forth in this agreement. The Construction Manager may issue a written order requiring the Contractor to suspend, delay or interrupt all or any part of the work for such period of time as the County may determine to be appropriate for the convenience of the County.

If the performance of the work is interrupted for an unreasonable period of time by an act of the County or any of its officers, agents, employees, contractors, or consultants in the administration of this agreement, an equitable adjustment shall be made for any increase in the Contractor's costs of performance and any increase in the time required for performance of the work necessarily caused by the unreasonable suspension, delay, or interruption. Any equitable adjustment shall be reduced to writing and shall constitute a modification to this agreement. In no event, however, shall an equitable adjustment be made to the extent that performance of this agreement would have been suspended, delayed or interrupted by any other cause, including the fault or negligence of the Contractor. No claim for an equitable adjustment pursuant to this paragraph shall be permitted before the Contractor shall have notified the Construction Manager in writing of the act or failure to act involved, and no claim shall be allowed unless asserted in writing to the Construction Manager within ten days after the termination of such suspension, delay or interruption.

00700-49 COMMENCEMENT AND DURATION OF WORK

The County may issue a Notice to Proceed at any time within 120 days following execution of the contract by the County. The Contractor shall commence work pursuant to this agreement within ten days of mailing or delivery of written notice to proceed. The Contractor shall diligently prosecute the work to completion within the time specified therefore in the Agreement. The capacity of the Contractor's construction and manufacturing equipment and plan, sequence and method of operation and forces employed, including management and supervisory personnel, shall be such as to insure completion of the work within the time specified in the Agreement. The Contractor and County hereby agree that the contract time for completion of the work is reasonable taking into consideration the average climatic conditions prevailing in the locality of the work and anticipated work schedules of other contractors whose activities are in conjunction with or may affect the work under this contract.

00700-50 TIME OF THE ESSENCE

All time limits stated in this agreement are of the essence of this contract.

00700-51 IMPACT DAMAGES

Except as specifically provided pursuant to a stop work order or change order, the Contractor shall not be entitled to payment or compensation of any kind from the County for direct or indirect or impact damages including, but not limited to, costs of acceleration arising because of delay, disruption, interference or hindrance from any cause whatsoever whether such delay, disruption, interference or hindrance is reasonable or unreasonable, foreseeable or unforeseeable, or avoidable, provided, however, that this provision shall not preclude the recovery of damages by the Contractor for hindrances or delays due solely to fraud or bad faith on the part of the County, its agents, or employees. The Contractor shall be entitled only to extensions in the time required for performance of the work as specifically provided in the contract.

00700-52 DELAY

The Contractor may be entitled to an extension of the contract time, but not an increase in the contract price or damages, for delays arising from unforeseeable causes beyond the control and without the fault or negligence of the Contractor or its subcontractors for labor strikes, acts of God, acts of the public enemy, acts of the state, federal or local government in its sovereign capacity, by acts of another separate contractor, or by an act or neglect of the County.

00700-53 INCLEMENT WEATHER

The Contractor shall not be entitled to an extension of the contract time due to normal inclement weather. Unless the Contractor can substantiate to the satisfaction of the Construction Manager that there was greater than normal inclement weather and that such greater than normal inclement weather actually delayed the work, the Contractor shall not be entitled to an extension of time therefore. The following shall be considered the normal inclement weather days for each month listed, and extensions of time shall be granted in increments of not less than one half day only for inclement weather in excess of the days set out.

January	10 days
February	10 days
March	7 days
April	6 days
May	4 days
June	3 days
July	4 days
August	2 days
September	2 days
October	3 days
November	6 days
December	9 days

00700-54 DELAY - NOTICE AND CLAIM

The Contractor shall not receive an extension of time unless a Notice of Delay is filed with the Construction Manager within ten days of the first instance of such delay, disruption, interference or hindrance and a written Statement of the Claim is filed with the Construction Manager within 20 days of the first such instance. In the event that the Contractor fails to comply with this provision, it waives any claim which it may have for an extension of time pursuant to this agreement.

00700-55 STATEMENT OF CLAIM - CONTENTS

The Statement of Claim referenced in Article 00700-54 shall include specific information concerning the nature of the delay, the date of commencement of the delay, the construction activities affected by the delay, the person or organization responsible for the delay, the anticipated extent of the delay, and any recommended action to avoid or minimize the delay.

00700-56 WORK BEHIND SCHEDULE, REMEDY BY CONTRACTOR

If the work actually in place falls behind the currently updated and approved schedule, and it becomes apparent from the current schedule that work will not be completed within the contract time, the Contractor agrees that it will, as necessary, or as directed by the Construction Manager, take action at no additional cost to the County to improve the progress of the work, including increasing manpower, increasing the number of working hours per shift or shifts per working day, increasing the amount of equipment at the site, and any other measure reasonably required to complete the work in a timely fashion.

00700-57 DILIGENCE

The Contractor's failure to substantially comply with the requirements of the preceding paragraph may be grounds for determination by the County that the Contractor is failing to prosecute the

work with such diligence as will insure its completion within the time specified. In such event, the County shall have the right to furnish, from its own forces or by contract, such additional labor and materials as may be required to comply with the schedule after 48 hours written notice to the Contractor, and the Contractor shall be liable for such costs incurred by the County.

00700-58 SET-OFFS

Any monies due to the Contractor pursuant to the preceding paragraph of this agreement may be deducted by the County against monies due from the County to the Contractor.

00700-59 REMEDIES CUMULATIVE

The remedies of the County under Articles 00700-56, 00700-57, and 00700-58 are in addition to and without prejudice to all of the rights and remedies of the County at law, in equity, or contained in this agreement.

00700-60 TITLE TO MATERIALS

No materials or supplies shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sales contract or other agreement by which any interest is retained by the seller. The Contractor hereby warrants that it has good and marketable title to all materials and supplies used by it in the work, and the Contractor further warrants that all materials and supplies shall be free from all liens, claims, or encumbrances at the time of incorporation in the work.

00700-61 INSPECTION OF MATERIALS

All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards and in accordance with the requirements of the contract documents. Additional tests performed after the rejection of materials or equipment shall be at the Contractor's expense.

00700-62 CONSTRUCTION MANAGER'S PRESENCE DURING TESTING

All tests performed by the Contractor shall be witnessed by the Construction Manager unless the requirement therefore is waived in writing. The Construction Manager may perform additional tests on materials previously tested by the Contractor, and the Contractor shall furnish samples for this purpose as requested.

00700-63 MATERIALS INCORPORATED IN WORK

The Contractor shall furnish all materials and equipment to be incorporated in the work. All such materials or equipment shall be new and of the highest quality available. Manufactured materials and equipment shall be obtained from sources which are currently manufacturing such materials, except as otherwise specifically approved by the Construction Manager.

00700-64 STORAGE OF MATERIALS

Materials and equipment to be incorporated in the work shall be stored in such a manner as to preserve their quality and fitness for the work and to facilitate inspection.

00700-65 PAYROLL REPORTS

The Contractor may be required to furnish payroll reports to the Construction Manager as required by the Owner Controlled Insurance Program.

00700-66 CONTRACTORS' REPRESENTATIVE

Before beginning work, the Contractor shall notify the Construction Manager in writing of one person within its organization who shall have complete authority to supervise the work, receive orders from the Construction Manager, and represent the Contractor in all matters arising pursuant to this agreement. The Contractor shall not remove its representative without first designating in writing a new representative. The Contractor's representative shall normally be present at or about the site of work while the work is in progress. When neither the Contractor nor its representative is present at the work site, the superintendent, foreman, or other of the Contractor' employee in charge of the work shall be an authorized representative of the Contractor.

00700-67 SPECIALTY SUB-CONTRACTORS

The Contractor may utilize the services of specialty subcontractors on those parts of the project which, under normal contracting practices, are performed by specialty subcontractors. The Contractor shall not award more than seventy-five percent of the work to subcontractors.

00700-68 INSPECTION BY THE CONSTRUCTION MANAGER

All work pursuant to this agreement shall be subject to inspection by the Construction Manager for conformity with contract drawings and specifications. The Contractor shall give the Construction Manager reasonable advance notice of operations requiring special inspection of a portion of the work.

00700-69 WORK COVERED PRIOR TO CONSTRUCTION MANAGER'S INSPECTION

In the event that work is covered or completed without the approval of the Construction Manager, and such approval is required by the specifications or required in advance by the Construction Manager, the Contractor shall bear all costs involved in inspection notwithstanding conformance of such portion of the work to the contract drawings and specifications.

00700-70 SCHEDULING OF THE WORK

The work of this contract shall be planned, scheduled, executed, and reported as required by the Contract Documents.00700-71 PROGRESS ESTIMATES

The Contractor shall prepare a written report for the Construction Manager's approval, on County forms, of the total value of work performed and materials and equipment obtained to the date of submission. Such a report must accompany each request for a progress payment and is subject to review and approval by the Construction Manager. Approval of a progress estimate or tendering of a progress payment shall not be considered an approval or acceptance of any work performed, and all estimates and payments shall be subject to correction in subsequent estimates. Progress payments shall be made for all completed activities and for materials suitably stored on-site.

00700-72 PROGRESS PAYMENTS

Upon approval of each monthly estimate of work performed and materials furnished, the Construction Manager shall approve payment to the Contractor for the estimated value of such work, materials, and equipment, less the amount of all prior payments and any liquidated damages. The Contractor will be paid 100 percent, less retainage, of the cost of materials received and properly stored on-site but not incorporated into the work. Payments for materials or equipment stored on the site shall be conditioned upon submission by the Contractor of bills of sale to establish the County's title to such materials or equipment. The Contractor's request for payment shall provide sufficient detail as to the work completed or materials purchased for which payment is requested to permit meaningful review by the Construction Manager.

00700-73 TIME OF PAYMENT

The Contractor will be paid within 45 days following receipt of an approved Progress Estimate. The Contractor expressly agrees that the payment provisions within this Contract shall supersede the rates of interest, payment periods, and contract and subcontract terms provided for under the Georgia Prompt Pay Act, O.C.G.A. §13-11-1 et seq., and that the rates of interest, payment periods, and contract and subcontract terms provided for under the Prompt Pay Act shall have no application to this Contract. The County shall not be liable for any late payment interest or penalty.

00700-74 RETAINAGE

The County shall retain from each progress payment ten percent of the estimated value of the work performed until the progress payments, including retainage, total 50 percent of the contract price. If a contract includes two or more projects or assignments that have been separately priced and have separate budgets, and the performances of such projects or assignments are not related to or dependent upon the performance of any other, the 50 per cent limit shall be based upon the price for each individual project or assignment. Thereafter, no further retainage shall be withheld so long as the Contractor is making satisfactory progress to insure completion of the work within the time specified therefore. The County may reinstate the ten percent retainage in the event the Construction Manager determines that the Contractor is not making satisfactory progress to complete the work within the time specified in this agreement or in the event that the Construction Manager provides a specific cause for such withholding. The County may also withhold retainage upon substantial completion of the work as provided in O.C.G.A. §13-10-81(c). Interest may be paid upon the retainage in accordance with Georgia law.

00700-75 PAYMENT OF SUBCONTRACTORS

The Contractor shall promptly pay each subcontractor upon the receipt of payment from the County. Such payment shall be made from the amount paid to the Contractor pursuant to the subcontractor's work. The Contractor shall also maintain the records of the percentage retained from payments to the Contractor pursuant to such subcontractor's work. The Contractor shall procure agreements from each subcontractor requiring each subcontractor to pay their subcontractors, agents and employees in a similar manner. The County reserves the right to inquire of any subcontractor, supplier, material men, or sub consultant, the status of any indebtedness of the Contractor. The County further reserves the right to require the Contractor to designate on each instrument of payment exceeding $400.00 to subcontractors, suppliers, material men, and sub consultants that such payment is on account of the work under this Contract.

00700-76 COUNTY'S RESPONSIBILITIES TO SUBCONTRACTORS

Neither the County nor the Construction Manager shall have any obligation to pay any subcontractor except as otherwise required by law.

00700-77 PROGRESS PAYMENTS - ACCEPTANCE OF WORK

Certification of progress payments, as well as the actual payment thereof, shall not constitute the County's acceptance of work performed pursuant to this agreement.

00700-78 PAYMENTS IN TRUST

All sums paid to the Contractor pursuant to this agreement are hereby declared to constitute trust funds in the hands of the contractor to be applied first to the payment of claims of subcontractors, laborers, and suppliers arising out of the work, to claims for utilities furnished and taxes imposed, and to the payment of premiums on surety and other bonds and on insurance for any other application.

00700-79 JOINT PAYMENTS

The County reserves the right to issue any progress payment or final payment by check jointly to the Contractor and any subcontractor or supplier.

00700-80 RIGHT TO WITHHOLD PAYMENT

The Construction Manager may decline to approve payment and may withhold payment in whole or in part to the extent reasonable and necessary to protect the County against loss due to defective work, probable or actual third party claims, the Contractor's failure to pay subcontractors or material men, reasonable evidence that the work will not be completed within the contract time or contract price or damage to the County or any other contractor on the project.

00700-81 CERTIFICATE OF SUBSTANTIAL COMPLETION

Upon the Contractor's submission of a request for a certificate of Substantial Completion, the Construction Manager shall inspect the work and determine whether the work is Substantially Complete. If the work is Substantially Complete, the Construction Manager shall issue a certificate of Substantial Completion of the work which shall establish the date of Substantial Completion, shall state the responsibilities of the County and the Contractor for security, maintenance, heat, utilities, damage to the work and insurance, and shall fix the time within which the Contractor shall complete the items submitted by the Contractor as requiring correction or further work. The certificate of substantial completion of the work shall be submitted to the County and the Contractor for their written acceptance of the responsibilities assigned to them pursuant to such certificate.

If in the sole opinion of the Construction Manager, the work is not substantially complete, the Construction Manager shall notify the Contractor of such, in writing, and outline requirements to be met to achieve Substantial Completion.

00700-82 PAYMENT UPON SUBSTANTIAL COMPLETION

Upon Substantial Completion of the work and upon application by the Contractor and approval by the Construction Manager, the County shall make payment reflecting 100% work completed, less value of work remaining as determined by Construction Manager and any authorized retainage.

00700-83 COMMENCEMENT OF WARRANTIES

Warranties required by this agreement shall commence on the date of final completion of the project as determined under Article 00700-84 unless otherwise provided in the certificate of Substantial Completion.

00700-84 FINAL PAYMENT - WAIVER OF CLAIMS, DISPUTE OF FINAL PAYMENT

The acceptance of the Substantial Completion payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of application for payment at Substantial Completion and except for the retainage sums due at final acceptance. Following the Construction Manager's issuance of the certificate of Substantial Completion and the Contractor's completion of the work pursuant to this agreement, the Contractor shall forward to the Construction Manager a written notice that the work is ready for final inspection and acceptance. If after inspection the Construction Manager certifies that the work is complete and issues written notification of such to the Contractor, the Contractor shall forward to the Construction Manager a final application for payment. The Construction Manager shall issue a certificate for payment, which shall approve final payment to the Contractor and shall establish the date of final completion.

In the event the Contractor timely disputes the amount of the final payment, the amount due the Contractor shall be deemed by the Contractor and the County to be an unliquidated sum and no interest shall accrue or be payable on the sum finally determined to be due to the Contractor for any period prior to final determination of such sum, whether such determination be by agreement of the Contractor and the County or by final judgment of the proper court in the event of litigation between the County and the Contractor. The Contractor specifically waives and renounces any and all rights it may have under O.C.G.A. §13-6-13 and agrees that in the event suit is brought by the Contractor against the County for any sum claimed by the Contractor under the Contract or for any extra or additional work, no interest shall be awarded on any sum found to be due from the County to the Contractor in the final judgment entered in such suit. All final judgments shall draw interest at the legal rate, as specified by law.

00700-85 DOCUMENTATION OF COMPLETION OF WORK

Neither the final payment nor the remaining retainage shall become due until the Contractor submits the following documents to the Construction Manager:

a. An affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work have been paid other otherwise satisfied;

b. The surety's consent to final payment; and

c. Any other data reasonably required by the County or Construction Manager establishing payment or satisfaction of all such obligations, including releases, waivers of liens, and documents of satisfaction of debts.

In the event that a subcontractor refuses to furnish a release or waiver as required by the County or Construction Manager, the Contractor may furnish a bond satisfactory to the County to indemnify the County against such loss. In the event that any lien or indebtedness remains unsatisfied after all payments are made, the contractor shall refund to the County all moneys that

the County may become compelled to pay in discharging such lien or other indebtedness, including all costs and reasonable attorney's fees.

00700-86 GOVERNING LAW

Each and every provision of this agreement shall be construed in accordance with and governed by Georgia law. The parties acknowledge that this contract is executed in Fulton County, Georgia and that the contract is to be performed in Fulton County, Georgia. Each party hereby consents to the Fulton Superior Court's sole jurisdiction over any dispute which arises as a result of the execution or performance of this agreement, and each party hereby waives any and all objections to venue in the Fulton Superior Court.

00700-87 CHANGES IN THE WORK

A. CHANGE ORDERS

1. A Change Order is a written order to the Contractor signed to show the approval and the authorization of the County, issued after execution of the Contract, authorizing a change in the Work and/or an adjustment in the Contract Sum or the Contract Time. Change Orders shall be written using forms designated by the County with Contractor providing supporting documentation as required by the Construction Manager. The Contract Sum and the Contract Time may be changed only by approved Change Order pursuant to Fulton County Procedure 800-6. The amount payable by the Change Order is payment in full for all direct and indirect costs incurred and related to the work under said Change Order, including but not limited to delays, imports, acceleration, disruption and extended overhead. A Change Order signed by the Contractor indicates the Contractor's agreement therewith, including the adjustment in either or both of the Contract Sum or the Contract Time.

2. The County, without invalidating the Contract, may order changes in the Work within the general scope of the Contract as defined herein. The time allowed for performance of the work and the contract price to be paid to the Contractor may be adjusted accordingly.

3. The cost or credit to the County resulting from a change in the Work shall be determined in one or more of the following ways:

   a. By mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;

   b. By unit prices stated in the Contract Documents or subsequently agreed upon;

   c. By cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or

   d. By the method provided in Subparagraph A4 below.

4. If none of the methods set forth in Subparagraphs 3a, 3b, or 3c above is agreed upon, the Contractor, provided a written order signed by the Construction Manager is received, shall promptly proceed with the Work involved. The cost of such Work shall then be determined by the Construction Manager on basis of the reasonable expenditures and savings of those performing the Work attributable to the change. The cost of the change shall include only the items listed in Subparagraph 5a below, and in the case of either a decrease or an increase in the Contract Sum, an allowance for overhead and profit in accordance with the schedules set forth in Subparagraphs 5b and 6 below shall be applied to the cost or credit.

a. In such case, and also under Subparagraph 3a above, the Contractor shall keep and present, in such form as the Construction Manager may prescribe, an itemized accounting of all actual costs expended, together with appropriate supporting data for inclusion in a Change Order.

b. All hourly rate charges shall b submitted to the Construction Manager for prior review and approval. All hourly rate charges shall be properly supported as required by the Construction Manager with certified payrolls, or their acceptable equivalent. When authorized to proceed for a given change and actual expenditures have been made prior to execution of a Change Order for the entire change, such actual expenditures may be summarized monthly, and if approved, incorporated into a Change Order. When both additions and credits covering related Work or substitutions are involved in any one change, the allowance for overhead and profit shall be figured on the basis of the net increase or decrease, if any, with respect to that change.

5. In Subparagraphs 3 and 4 above, the items included in "Cost and "Overhead" shall be based on the following schedule:

a. Unless otherwise provided in the Contract Documents, "Cost" shall be limited to the following: cost of materials incorporated into the Work, including sales tax and cost of delivery; cost of direct labor (labor cost may include a pro rata share of foreman's account of the change) including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; workers' or workmen's compensation insurance; rental value of equipment and machinery; costs for preparing Shop Drawings.

b. Unless otherwise provided in the Contract Documents, "Overhead" shall include the following: bond and insurance premiums including increase and decreases from change in the Work, supervision, superintendence, construction parking, wages of timekeepers, watchmen and clerks, small tools, consumable supplies, expendables, incidentals, general office expense, the cost of additional reproduction for the Contractor's subcontractors beyond that agreed upon in the Contract Documents, construction parking, any additional costs of craft supervision by the Contractor's or subcontractors' superintendents, and overhead charges which would be customary and expended regardless of the change in the Work due to other overlapping activities which are included as part of the original Contract, and all other expenses not included in "Cost" above.

c. In the event that a change is issued by the County which would require the expenditure of substantial amounts of special supervision (beyond the foreman level) by the Contractor, the Contractor may, at the sole direction of the Construction Manager, be allowed to incorporate these charges into the agreement cost for the change.

6. In Subparagraphs 3 and 4 above, the allowance for overhead and profit combined, included in the total cost or credit to the County, shall be based on the following schedule:

a. For the Contractor, for any work performed by the Contractor's own forces, <u>ten (10) percent</u> of the cost.

b. For the Contractor, for any work performed by a Contractor's subcontractor, five (5) percent of the amount due the subcontractor.

c. For each subcontractor or sub-subcontractor involved, for any work performed by that subcontractor's or sub-subcontractor's own forces, ten (10) percent of the cost.

d. For each subcontractor, for work performed by a sub-subcontractor, five (5) percent of the amount due to the sub-subcontractor.

e. Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 5 above unless modified otherwise.

7. In order to facilitate checking of quotations for extras or credits, all proposals or bids, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs, including labor cost, materials and subcontracts. Labor and materials shall be itemized in the manner defined in Subparagraph 4 above. Where major cost items are subcontracts, they shall be itemized also. In no case shall a change be approved without such itemization.

8. No payment shall be made for any changes to the contract that are not included in a fully executed Change Order.

B. CONCEALED, UNKNOWN AND DIFFERING CONDITIONS

1. Should concealed conditions be encountered in the performance of the Work below the surface of the ground, or should concealed or unknown conditions in an existing structure be at variance with the conditions indicated by the Contract Documents, or should unknown physical conditions below the surface of the ground or concealed or unknown conditions in an existing structure of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract, be encountered, the Contract Sum and Contract Time shall be equitably adjusted by Change Order upon request by either party made **within twenty (20) days after the first observance** of the conditions. No such request for equitable adjustment shall be valid unless the Contractor complies with this (20) days notice and Subparagraph C.1. below.

2. The Contractor shall promptly, and before such conditions are disturbed, notify the Construction Manager in writing of any claim of concealed, unknown or differing conditions pursuant to this paragraph. The Construction Manager shall authorize the Engineer to investigate the conditions, and if it is found that such conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the Work under this Contract, whether or not changed as a result of such conditions, an equitable adjustment shall be recommended to the Construction Manager.

3. No claim of the Contractor under this clause shall be allowed unless the Contractor has given the notice required in (a) above, prior to disturbing the condition.

4. No claim by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this Contract.

5. Any materially differing site condition as between what is shown on the Drawings and Specifications and actually found on site shall be immediately reported to the Construction Manager in writing prior to the commencement of Work at the site. Failure of the Contractor to notify the Construction Manager in writing of the differing site condition prior to performance of Work at the site shall constitute a waiver of any claim for additional monies. Any Change Order necessitated by the differing site condition shall be processed as provided under "Changes in the Contract".

C. REQUESTS FOR ADDITIONAL COST

1. If the Contractor wishes to request an increase in the Contract Sum, the Contractor shall give the Construction Manager written notice thereof within twenty (20) days after the occurrence of the event, or identification of the conditions, giving rise to such request. This notice shall be give by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed in accordance with Article 00700-25 and Subparagraph A.4 above. No such request shall be valid unless so made within the twenty (20) days specified above. If the County and the Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined by the Construction Manager. Any change in the Contract Sum resulting from such claim shall be documented by Change Order.

2. If the Contractor claims that addition cost is involved because of, but not limited to (1) any written interpretation pursuant to General Condition 00700-17 of this Agreement, (2) any order by the County to stop the Work pursuant to Articles 00700-25 and 00700-37 of this Agreement where the Contractor was not at fault, or any such order by the Construction Manager as the County's agent, or (3) any written order for a minor change in the Work issued pursuant to Paragraph D below, the Contractor shall submit a request for an increase in the Contract Sum as provided in Subparagraph C.1 above. No such claim shall be valid unless the Contractor complies with Subparagraph C.1 above and approved by the County pursuant to Change Order Policy 800-6.

D. MINOR CHANGES IN THE WORK

The Construction Manager may order minor changes in the Work not involving an adjustment in the Contract Price, extension of the time allowed for performance of the work and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by a written Change Directive issued by the Construction Manager, and shall be binding on the County and the Contractor. The Contractor shall carry out such written orders promptly.

E. BONDS

If any change order results in an increase in the contract price, the contractor shall increase the penal sum of the performance and payment bonds to equal the increased price.

00700-88 DISAGREEMENT WITH ORDERS FOR CHANGE

Contractor's written acceptance of a Change Order or other order for changes shall constitute his final and binding agreement to the provisions thereof and a waiver of all claims in connection therewith, whether direct or consequential in nature. Should Contractor disagree with any order for changes, he may submit a notice of potential claim to the Construction Manager, at such time as the order is set forth in the form of a Change Order. Disagreement with the provisions of an order for changes shall not relieve Contractor of his obligation under Article 00700-87 of this Agreement.

00700-89 NO WAIVER OF REMEDIES

Exercise by the County of any remedy is not exclusive of any other remedy available to County and shall not constitute a waiver of any such other remedies. Failure of the County to exercise any remedy, including breach of contract remedies, shall not preclude the County from exercising such remedies in similar circumstances in the future.

00700-90 LAND AND RIGHTS-OF-WAY

The owner will provide, as indicated in the Contract Documents and prior to Notice to Proceed, the lands upon which the work is to be done, right-of-way for access thereto, and such other lands which are designated for the use of the Contractor. The Contractor shall confine the Contractor's work and all associated activities to the easements and other areas designated for the Contractor's use. The Contractor shall comply with any limits on construction methods and practices which may be required by easement agreements. If, due to some unforeseen reason, the necessary easements are not obtained, the Contractor shall receive an equitable extension of contract time dependent upon the effect on the critical path of the project schedule or the County may terminate the Contract for its convenience.

00700-91 COORDINATION WITH STATE DEPARTMENT OF TRANSPORTATION

No clearing or grading shall be completed by Contractor within the State Department of Transportation (DOT) area under construction. The Contractor must coordinate his construction scheduling with DOT. If the Contractor begins work before DOT's completion date, he must obtain the approval of DOT before starting work in the area. The state DOT has the right to stop the Contractor's work the DOT area. The Contractor shall receive no additional compensation or damages resulting from delay or work stoppage from DOT actions or scheduling. Contractor shall obtain DOT drawings of the DOT, project area for verification of road geometry, storm drains, etc. from Georgia Department of Transportation or Fulton County. The Contractor is responsible for obtaining any pertinent DOT revisions.

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END OF SECTION

SPECIAL CONDITIONS

A. Work shall be performed during non-business hours of 6:00 pm to 5:00 am, Monday through Friday, except otherwise indicated.

1. Weekend hours: 5:00 pm Friday to 5:00 am Monday
2. Special Events: As indicated by Fulton County and The City of Atlanta.

B. Existing Utility Interruptions: Do not interrupt utilities service facilities occupied by Fulton County Government or other unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Owner not less than five (5) days in advance of proposed utility interruptions or shutdowns.
2. Do not proceed with utility interruptions without Owner's written permission.

DIVISION WORK REQUIREMENTS

SECTION 01 10 00

SUMMARY OF WORK

PART 1 - GENERAL

1.1 GENERAL NOTES

A. This Section includes detailed information regarding the scope of work for this Contract. Scopes of work for any separate contracts for the Project, if any, and other information relating to or affecting this Contract shall also be provided in this Section.

B. The Contractor is responsible for performing the Work described in this Section for the Contract for which it has submitted a bid. The Contractor shall have taken all of the provisions herein into consideration when preparing its bid, and all costs associated with performing all Work required by the Contract Documents shall be included in the Contractor's Contract Sum. The Contractor is responsible for knowing what Work has been assigned to any preceding or succeeding separate contracts. No additional reimbursement or extensions of time will be allowed the Contractor due to its ignorance of the Work assigned to this Contract or to any separate contract which may affect its Work.

C. The Contract Documents shall be construed so as to require the Contractor to perform all Work reasonably inferable therefrom as being necessary in order to produce the indicated functional, operational or finished result.

D. The Contract Documents issued are deemed by the County to contain sufficient information for bidding and contracting for the Work specified. However, the Contractor is advised to check documents for thoroughness of information and notify the Construction Manager immediately in writing of any valid discrepancies.

E. Time is of the essence for every portion of this Contract wherein a definite and certain length of time is fixed for performance of any act whatsoever. The Contractor shall be aware of the extreme importance of performing the Work and achieving all required milestones and completion dates within the allotted Contract Time.

1.2 SUMMARY

A. This Section includes the following:

1. Work covered by the Contract Documents.
2. Use of premises.
3. Work restrictions.
4. Specification formats and conventions.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Carnes Justice Center Building, Wall Panel Evaluation Part II (Phase 2)

1. Project Location: 160 Pryor Street, Atlanta, GA 30303

B. The Work consists of the following:

1. Stone Veneer: Remove the top band of panels and cap stones on both the one story section as well as the higher roof. After the stone panels are removed: damp-proof the backup walls, set new galvanized support angles, install flashing, reset the panels. Install flashing at the top of wall and reset cap stones. Install backer rods and sealants at the exterior face of the stone panels with weeps at appropriate locations.

2. Brick Walls: The brick band above the top floor windows should have control joints installed in locations recommend by the Brick Industry Association Guidelines. The capstones at the top of wall should be removed and flashing installed underneath the capstones to prevent water infiltration. The corners and ends of the walls shall be rebuilt.

3. General: All sealants joints in the exterior shall be cleaned of any existing sealant and backer rods, and new backer rods and sealant installed.

C. The Contractor's services shall include all construction and equipment installation required to complete the Work as indicated in the Contract Documents. The Contractor shall provide or cause to be provided and shall pay for all testing services, labor, materials, equipment, tools, construction equipment and machinery, temporary utilities, transportation and all other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent, and whether or not incorporated or to be incorporated in the Work. The above shall be provided such that the facility is turned over to the County in a complete, finished, and fully functional and operating manner.

1.4 SCOPE OF WORK

A. Work includes, but is not limited to, construction for demolition, exterior envelope, waterproofing, sealants and insulation.

B. The Contractor shall be responsible for securing and paying for all permits, fees, taps, meters,inspections and bonds required to complete the Work. The Contractor shall also be responsible for paying for and coordinating all the required Work with all utility companies required for services to the Project. Additionally, any disruption in service must be coordinated to the satisfaction of the Owner so as not to disrupt any ongoing activities and requirements of the Owner.

1.5 REGULATORY REQUIREMENTS AND STANDARDS

A. Permitting: The Contractor assumes responsibility for securing all land disturbance permits, demolition permits and building permits; providing meters and paying all utility tie-in fees; restoring of roads and right-of-ways; maintaining siltation control; and securing all final releases from regulating bodies. Minimum permits required for this Project:

1. Demolition Permit: from City of Atlanta Bureau of Buildings.

2. Building Permit: from City of Atlanta Bureau of Buildings.

The Contractor is responsible for payment of fees associated with the permits and inspections per the following schedule. ANY FEE FOR REQUIRED PERMITS OR INSPECTIONS NOT SPECIFICALLY NOTED BELOW AS WAIVED IS THE RESPONSIBILITY OF THE DESIGN/BUILDER.

a. Land Disturbance Permitting-Fee Waived
b. Fulton County Building Permit-Fee Waived

B. Codes: It is the Contractor's responsibility to comply with all applicable laws, statutes, and ordinances, building codes, rules and regulations applicable to the Work.

1.6 USE OF PREMISES

A. General: Contractor shall have limited use of premises for construction operations as indicated by representative of Fulton County General Services Department.

B. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Confine storage of materials to area designated by Owner.

2. Driveways and Entrances: Keep loading areas and entrances serving premises clear and available to Fulton County, Fulton County employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

   a. Schedule deliveries to minimize use of driveways and entrances.
   b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

3. Hauling Restrictions: Comply with all legal load restrictions in the hauling of materials. A special permit will not relieve Contractor of liability for damage which may result from moving of equipment.

C. Use of Existing Building: Maintain existing building in a weather tight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.

1.7 WORK RESTRICTIONS

A. On-Site Work Hours: Work shall be generally performed during non-business hours of 6 p.m. to 5 a.m., Monday through Friday, except otherwise indicated.

1. Weekend Hours: 6 p.m. Friday to 5 a.m. Monday
2. Special Events: As indicated by Fulton County and the City of Atlanta.

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

1. Notify Owner not less than five days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Owner's written permission.

1.8 FIELD VERIFICATION

A. Field verify all new and existing dimensions affecting the work of this contract before ordering products or commencing work.

1.9 SPECIFICATION FORMATS AND CONVENTIONS

A. Specification Format: The Specifications are organized into Divisions and Sections using the 50-division format and CSI/CSC's "Master Format" numbering system.

1. Section Identification: The Specifications use Section numbers and titles to help cross referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.

2. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.

B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 10 00

SECTION 01 21 00

ALLOWANCES

PART 1 - GENERAL

1.1 DEFINITIONS / GENERAL

A. Allowances: Allowances are defined as sums of monies within the Contract Sum which may, at Owner's option and under terms established in the Contract, be utilized at the Owner's discretion to supplement corresponding basic requirements of Contract Documents.

B. Owner allowances are exclusively for the cost of materials, delivery to the site and associated installation. The total allowance amount is exclusively for Owner use, and shall include no markup for the Contractor or for its subcontractors.

1.2 SCHEDULE OF ALLOWANCES

A. OWNER-PROVIDED ALLOWANCES

1. Division 01 Owners Allowance

a. Allowance amount: $

b. Scope of Work: As determined by the Owner, through the Construction Manager.

c. Procurement Procedure: By the Contractor, and coordinated by the Construction Manager.

d. Schedule Conditions: As required.

e. Coordination Responsibility: As determined by the Construction Manager.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 21 00

SECTION 01 29 73

SCHEDULE OF VALUES

PART 1 - GENERAL

1.1 GENERAL SUMMARY

A. The Contractor shall submit to the Construction Manager a Schedule of Values for the entire Contract, either within ten (10) days of Contract award or fifteen (15) days prior to the first Application for Payment deadline, whichever comes first.

B. Breakdown and Content

The Schedule of Values will be submitted in a format as prescribed by and to the level of detail specified by the Construction Manager.

1. The sum of the parts of the Schedule of Values shall aggregate to the total Contract Sum.

2. The minimum level of breakdown will normally be:

   a. General Conditions line item(s) as required

   b. Construction costs, by CSI Division or major trade, and broken down into labor and material line items for specific areas of the facility

   c. Stored material projections

3. Schedule of Values items shall have a direct and understandable relation to the Project CPM Schedule.

1.2 SCHEDULE OF VALUES UTILIZATION

A. Applications for Payment

The Schedule of Values, unless objected to by the Construction Manager or the Architect, shall be the basis for the Contractor's Applications for Payment.

B. Changes to the Schedule of Values

The Construction Manager shall have the right to require the Contractor to alter the value or add/delete categories listed on the Schedule of Values at any time for the following reasons:

1. The Schedule of Values appears to be incorrect or unbalanced.

2. A revision to the segregation of values is required due to the Contractor revising the sequence of construction or assembly of building components, which in turn invalidates the Schedule of Values.

3. Change Orders are issued to the Contractor and require incorporation into the Schedule of Values.

C. Stored Materials

The Contractor is required to correlate the documentation for payment of stored materials requested in the Application for Payment against the agreed upon breakdown of the Schedule of Values. The Construction Manager reserves the right to not process the Application for Payment if this correlation has not been submitted in conjunction with the Application.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 29 73

SECTION 01 31 13

PROJECT COORDINATION

PART 1 - GENERAL

1.1 GENERAL SUMMARY

A. The Contractor shall become thoroughly familiar with the requirements of the Contract Documents, as well as jobsite conditions and the work of separate contractors (if any), and shall make any adjustments necessary to maintain the Project schedule.

B. Close coordination will be required by the Contractor with the County, Construction Manager, other authorities having jurisdiction, separate contractors (if any), and others having an interest in the Project to assure that all work on the site, access to and from the site, and the general conduct of the operations is maintained in a safe and efficient manner, and that disruption and inconvenience to existing streets and property are minimized.

C. The Contractor and its subcontractors of all tiers shall be subject to such rules and regulations for the conduct of the Work as the County, Construction Manager, or other authority having jurisdiction may establish.

1.2 COORDINATION OF THE WORK

A. The Contractor shall be completely responsible for the coordination of its Work, including the Work performed by its subcontractors of all tiers.

B. Observation of the Work by the Construction Manager or others shall not be interpreted as relieving the Contractor of its responsibility for the coordination of all Work, superintendence of the Work, or scheduling and direction of the Work.

C. The Contractor shall coordinate its Work with the work of any separate contractors through the Construction Manager for proper function and sequence, coordinating material deliveries and staging of same, all to avoid construction delays.

D. The Contractor shall review material and equipment staging requirements with the Construction Manager prior to placing such materials or equipment on the site.

E. The Contractor shall conduct the Work so as to provide the least possible interference to the activities of adjacent properties and traffic patterns. Confine operations only to areas where construction or support functions are required. Portions of the site beyond areas in which construction or support functions are required are not to be disturbed.

F. Conceal pipes, ducts, and wiring in floor, wall, and ceiling construction of finished areas wherever possible. If doubt arises as to the means of concealment or the intent of the Contract Documents, request clarification from the Construction Manager prior to proceeding. Mechanical, plumbing, and electrical work shall be tested and inspected in advance of concealment.

1.3 ACCESS AND TRAFFIC CONTROL

A. The Contractor shall maintain free access to all buildings and areas of the site for emergency vehicles, service vehicles, and fire fighting equipment and at no time shall block off or close roadways or designated fire lanes without providing auxiliary roadways and means of entrance acceptable to the County, the Construction Manager, and any other authority having jurisdiction. Fire hydrants shall remain accessible at all times. The Contractor shall provide at least forty-eight (48) hours notice of any changes to such routes.

B. The Contractor shall be responsible for security of the site and building(s) until acceptance of the Project by the County. The Contractor shall cooperate with the County, the Construction Manager, and any separate contractors with respect to entry into the Project when requested during non-standard working hours.

C. The Contractor shall coordinate its operations to minimize the impact on vehicular and pedestrian traffic around the site. Operations and traffic control measures shall comply with the requirements of the authority having jurisdiction.

D. The Contractor shall protect all street pavements, curbs, sidewalks, and other existing infrastructure not intended for demolition or alteration during the course of the Work, and shall repair all parts of same which become damaged.

E. The Contractor shall be responsible for the cleaning of adjacent and surrounding streets and sidewalks from debris, dirt, mud, or other deleterious materials resulting from operations under this Contract. The Contractor shall immediately clean any such areas as directed by the Construction Manager.

1.4 WORKING HOURS

A. The Contractor hours of work operation are 6:00 pm until 5:00 am Monday through Thursday. Weekend hours begin 6:00 pm Friday and end 5:00 am Monday and are to be planned in coordination with and approved by the Construction Manager.

B. The Contractor shall work whenever conditions permit (regardless of anticipated or orderly procedure, the operations of the County or other contractors, or conditions encountered) to proceed without delay and to maintain schedule dates. All operations shall be conducted so as to comply with all applicable laws, ordinances, and regulations regarding allowable hours of work.

C. The Contractor shall notify the Construction Manager at least forty-eight (48) hours in advance of planned late night or weekend work. Failure to provide such notice may be cause for the Construction Manager to require the removal or uncovering of Work performed without the knowledge of the Construction Manager.

1.5 EXISTING UTILITIES AND OTHER SERVICES

A. Utilities and/or other services which are shown, or not shown but encountered, shall be protected by the Contractor from any damage from any work operations of the Contract, unless or until they are abandoned. If the utilities or services are not abandoned at the time of damage, the Contractor shall immediately repair any damage from its work operations and restore the utilities or services to an equal or better condition than that which existed prior to the damage.

B. The Contractor and its subcontractors of all tiers shall be responsible for all damage to the Project including any existing buildings and grounds due to its operations under this Contract. Repair or replacement of damaged items shall be to the satisfaction of the County and the Construction Manager.

1.6 PROTECTION OF FINISHED WORK

A. The Contractor shall be responsible for protecting its finished Work and materials from damage from any source, and shall maintain such protection until acceptance of the Work by the County. Any damage to finished Work caused by the work operations of this Contract shall be repaired, or such damaged Work replaced, by the Contractor at no additional cost to the County. No exceptions to this policy will be allowed.

B. The Contractor shall coordinate the proper means by which materials and/or equipment are moved through the construction, ensuring that no structural overloading is allowed and that existing construction is protected from physical damage.

C. Protect existing trees on the site to be saved, and those on adjacent properties where in close proximity to the Work. Carefully wrap trees adjacent to the construction work, material storage area, and trucking lanes in burlap and encase with protective framework. Protect roots during excavation and grading to minimize disturbance and damage.

D. Keep concrete floors free of oils, grease, and other materials to prevent discoloring if to be left exposed, or to prevent adverse bonding affects if a finished floor is to be applied. Where work is performed over finished floors, the Contractor shall provide an acceptable cover to protect the finished surface against damage, paint, or stains.

E. Load no part of the structure during construction with a load greater than calculated to bear safely when completed. Make temporary supports as strong as permanent supports. Place no load on a concrete slab until it has cured and achieved sufficient strength.

F. Take strict precautions against unnecessary traffic on finished roofing surfaces.

G. Protect all glass surfaces during construction. Prior to Substantial Completion, replace any broken, scratched, or otherwise damaged glass with glass of the same type, size, and quality as the original.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 31 13

SECTION 01 31 19

PROJECT MEETINGS

PART 1 – GENERAL

1.1 GENERAL

A. The Construction Manager will determine the agenda for and chair the meetings described below and also shall prescribe the format for the documentation of the meetings to be produced by the Contractor.

B. Representatives of the Contractor and its subcontractors and suppliers in attendance at any project meeting shall be qualified and authorized to act on behalf of the entity each represents.

C. The Contractor shall schedule and administer project meetings throughout progress of Work where specified or required, and shall have the following specific responsibilities:

1. Distribute Construction Manager's agenda for meetings

2. Distribute written notice of each meeting a minimum of four days in advance of meeting date

3. Make physical arrangements for meetings

4. Record minutes, in the format to be provided by the Construction Manager, to include significant proceedings and decisions

5. Reproduce and submit word processed minutes, within four working days after each meeting, to the Construction Manager for approval before further distribution. After approval, distribute copies as follows:

   a. to all participants in the meeting
   b. to all parties affected by decisions made at meeting
   c. to all other parties as may be designated by the County or Construction Manager

D. The County's user department(s) will be active participants in the design and construction process for this project, and their representative(s) shall be invited to all project meetings for which their presence and/or participation is appropriate.

1.2 PRE-CONSTRUCTION MEETING

A. Scheduling: Meetings shall be held at least two weeks prior to any Work commencing on the site.

B. Location: Designated by Construction Manager.

C. Attendance:

1. Owner/user group representative(s), as appropriate

2. Construction Manager' representative

3. Architect's representative (at its option)

4. Contractor's Project Manager, Superintendent, and other representative(s) as appropriate

5. Major subcontractors and suppliers

6. Others as appropriate

D. Suggested Minimum Agenda:

1. Discussion of major subcontractors and suppliers

2. Projected construction schedules

3. Critical work sequencing

4. Major equipment deliveries and priorities

5. Project coordination and designation of responsible personnel

6. Procedures and processing of:

   a. Design issues and decisions
   b. Field decisions
   c. Proposal requests
   d. Submittals
   e. Change orders
   f. Applications for payment

7. Adequacy of distribution of Construction Documents

8. Procedures for maintaining record documents

9. Use of premises:

   a. Office, work and storage areas
   b. County's, Architect's, and Construction Manager's requirements

10. Construction facilities, controls and construction aids

11. Temporary utilities

12. Safety and first-aid procedures

13. Security procedures and site access controls

14. Housekeeping procedures

15. Traffic and parking procedures

16. Other administrative procedures

1.3 CONSTRUCTION PROGRESS MEETINGS

A. Scheduling: Meetings shall be conducted at least bi-weekly throughout the construction phase.

B. Location of the Meetings: Project field office of Contractor or other location designated by Construction Manager.

C. Attendance:

1. Owner/user group representative(s), as appropriate
2. Construction Manager' representative
3. Architect's representative (at its option)
4. Contractor's Project Manager, Superintendent, and other representative(s) as appropriate
5. Subcontractors and suppliers as appropriate to the agenda
6. Others as appropriate

D. Suggested Minimum Agenda:

1. Actual vs. scheduled progress since previous meeting
2. Planned construction activities for the next four weeks
3. Problems with and revisions to construction schedule
4. Review of off-site fabrication and delivery schedules
5. Corrective measures and procedures to regain projected schedule
6. Submittal schedules and expediting
7. Construction Document clarifications
8. Field observations, problems, conflicts
9. Quality control
10. Actual and potential changes and their impacts
11. Safety issues

1.4 PRE-INSTALLATION MEETINGS

A. Scheduling: Schedule pre-installation meetings for installation of various aspects of the Work prior to the start of installation, or as otherwise specified in the Project Manual. Do not schedule pre-installation meetings until required submittals have been approved.

B. Location: At job site.

C. Meeting Requirements:

1. Prior to installation of work, conduct pre-installation meeting at project site with Contractor's superintendent and foreman, primary materials installer, installer of each component of associated work, representative(s) of materials manufacturer(s), inspection and testing agency representative (if any), installers of other work requiring coordination, Construction Manager, Architect, and Owner's representative for the purpose of reviewing job mock-up (if any), job conditions, project requirements and procedures to be followed in performing work.

2. At pre-installation meeting, examine areas and conditions under which work is to be performed. Report in writing of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected. Commencement of work shall constitute acceptance of substrate conditions.

3. At pre-installation meeting, the manufacturer's authorized representative shall inspect storage of job site materials, establish scheduling of initial and final installation of products, and establish the method of preparing written progress reports to Contractor (with copy to Construction Manager) of job conditions and installation.

4. At pre-installation meeting, review manufacturer's product data publications and other published instructions for material installation compliance including shop drawings. Shop drawings and submittals shall be reviewed and approved prior to pre-installation meetings. Contractor shall provide a set of approved shop drawings and submittals for meeting use.

5. Where manufacturer's representative offers recommendations on material use, such recommendations shall be submitted in writing and substantiated by dated, printed, published product data or material use statement which is complete, definite, and clear, and signed by authorized company official.

6. Meeting Report: Submit copy of pre-installation job meeting report. Include copy of manufacturer's inspection report, manufacturer's recommendations, and any statement of non-compliance as applicable.

7. Pre-Installation meetings shall include, but not be exclusive of the following portions of the Work:

   a. Roof System
   b. Brick/Masonry
   c. Glazing & Skylights
   d. Applied Wall Systems & Products
   e. Equipment & Systems
   f. Combined Mechanical/Electrical/Plumbing & Control Systems

1.5 INSPECTION TOURS

A. Formal inspection tours shall be made of the job progress for the Owner and any other officials as the occasion warrants and as scheduled by the Construction Manager.

B. If requested by the Construction Manager, the Contractor shall be prepared to show and explain work completed and in progress throughout the Project to the inspection parties.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used) END OF SECTION 01 31 19

SECTION 01 32 13

SCHEDULING OF THE WORK

PART I -GENERAL

1.1 INTRODUCTION

A. This Section describes the construction scheduling and progress reporting requirements of the Contract. The primary objectives of the requirements of this Section are:

1. to insure adequate planning and execution of the Work by the Contractor;
2. to assist the County and Construction Manager in evaluating the progress of the Work;
3. to provide for optimum coordination by Contractor of its trades, subcontractors and suppliers, and of its Work with the work or services provided by the County or any separate contractors; and
4. to permit the timely prediction or detection of events or occurrences which may affect the timely prosecution of the Work.

1.2 GENERAL SCHEDULING REQUIREMENTS

A. The Work of this Contract shall be planned, scheduled, executed, and reported using the critical path method (CPM). The Contractor shall use one of the following software programs to develop its Detailed Construction Schedule:

1. Primavera Project Planner, latest version
2. Microsoft Project, latest version (MPX file)

B. The Detailed Construction Schedule, as defined herein, shall represent the Contractor's commitment and intended plan for completion of the Work in compliance with the Contract completion date and interim milestone dates specified. The Detailed Construction Schedule shall take into account all foreseeable activities to be accomplished by any separate contractors or the County, and interface dates with utility companies, the County's operations, and others. The Detailed Construction Schedule shall anticipate all necessary manpower and resources to complete the Work within the dates set forth.

C. Once approved by the Construction Manager, the Detailed Construction Schedule will become the Schedule of Record, and will be the basis for coordinating the Work, scheduling the Work, monitoring the Work, reviewing progress payment requests, evaluating time extension requests, and all other objectives listed above. No other schedule will be recognized for this Contract.

D. The Contractor is responsible for determining the sequence of activities, the time estimates of the detailed construction activities and the means, methods, techniques and procedures to be employed. The Detailed Construction Schedule shall represent the Contractor's best judgment of how it will prosecute the Work in compliance with the Contract requirements. The Contractor shall ensure that Detailed Construction Schedule is current and accurate and is properly and timely monitored, updated and revised as Project conditions and the Contract Documents may require.

E. When there are separate contractors working concurrently on the Project whose work must interface or be coordinated with the Work of the Contractor, the Contractor shall coordinate its activities with the activities of the separate contractors, and the Detailed Construction Schedule shall take into account and reflect such work by others.

F. The Contractor shall be solely responsible for expediting the delivery of all materials and equipment to be furnished by it so that the progress of construction shall be maintained according to the currently approved construction schedule for the Work. The Contractor shall notify the Construction Manager in writing, and in a timely and reasonable manner, whenever the Contractor determines or anticipates that the delivery date of any material or equipment to be furnished by the Contractor will be later than the delivery date indicated by the currently approved construction schedule, or required consistent with the completion requirements of this Contract, subject to schedule updates as herein provided.

1.3 DETAILED CONSTRUCTION SCHEDULE

A. Within two (2) weeks after the Notice to Proceed, the Contractor shall submit a Detailed Construction Schedule according to the requirements established herein.

B. The Detailed Construction Schedule shall consist of a time-scaled, detailed network graphic representation of all activities which are part of the Contractor's construction plan and an accompanying listing of activity's dependencies and interrelationships. The Detailed Construction Schedule submission shall include, but not be limited to, the following information:

1. Project name
2. Distinct, logical and identifiable subdivisions of Work
3. Activities for all aspects of the Work, with durations not exceeding fourteen (14) calendar days for all activities for which the Contractor will perform actual construction work. Material procurement, submittals, concrete curing and other similar activities may exceed fourteen (14) calendar days if approved by the Construction Manager. Related activities, each of duration of five (5) calendar days or less, may be shown as one activity together, if not on the critical path of timely job completion.
4. Outage schedules for existing utility services that will be interrupted during the performance of the Work
5. Acquisition and installation of equipment and materials supplied and/or installed by the County or separate contractors
6. All start dates, milestones, float and completion dates
7. An accounting of the number of workdays anticipated to be lost due to weather. This accounting shall be in accordance with allowable days per month provided in Article 8 of the *Owner-Contractor Agreement* (Section 00 500).
8. A tabular report listing all predecessor and successor activities for each activity
9. A legible time scaled network diagram showing the critical path.
10. A listing of the project calendar, indicating the anticipated days of work performance
11. A floppy computer disk, in a form and format acceptable to the Construction Manager, of the Detailed Construction Schedule including all required submission information resident in the computer system and containing all of the files associated with the schedule.

C. Activities and milestones to appear on the Detailed Construction Schedule shall include, but not be limited to, sitework, structure erection, roof close-in, exterior wall systems, paving, major material fabrication and delivery, shop drawings submittals, bi-weekly

progress meetings, furniture delivery and installation, equipment delivery and installation, coordination requirements, mock-up installations and inspections, dates of Substantial and Final Completion, Certificate of Occupancy inspection, systems testing and instruction, and special County reviews and decision points that impact the Work.

D. Schedule Reports: Schedule submissions will contain the following minimum information for each activity:

1. Activity number, description and estimated duration
2. Anticipated start and finish dates
3. Responsibility for activity
4. The cost loading values for each activity.

E. For all major equipment and materials to be fabricated or supplied for the Project, the Detailed Construction Schedule shall show a sequence of activities including:

1. Preparation of shop drawings and sample submissions
2. A reasonable time for review of shop drawings and samples or such time as specified in the Contract Documents
3. Shop fabrication, delivery and storage
4. Erection or installation
5. Testing of equipment and materials.

F. The Contractor shall submit, as a part of the data submitted to the Construction Manager, a narrative report indicating the anticipated allocation by the Contractor of the following resources and work shifts for each activity which he proposes to be utilized on the Project:

1. labor resources;
2. equipment resources; and
3. whether it proposes the Work to be performed on single, double or triple shifts, and whether it is to be done on a 5, 6 or 7 day work week basis.

G. The Construction Manager shall have the right to require the Contractor to modify any portion of the Contractor's Detailed Construction Schedule, or Recovery Schedule, as herein required, (including cost loading) with the Contractor bearing the expense thereof, which the Construction Manager reasonably determines to be:

1. impractical or unreasonable;
2. based upon erroneous calculations or estimates;
3. not in compliance with other provisions of the Contract Documents;
4. required in order to ensure proper coordination by the Contractor of the Work of its subcontractors and with the work or services being provided by any separate contractors;
5. necessary to avoid undue interference with the County's operations or those of any utility companies or adjoining property owners;
6. necessary to ensure completion of the Work by the milestone and completion dates set forth in the Contract Documents;
7. required in order for the Contractor to comply with the requirements of this Section or any other requirements of the Contract Documents; or
8. not in accordance with the Contractor's actual operations.

1.4 COST LOADING

A. As part of the submission of the Detailed Construction Schedule, the Contractor shall submit a breakdown of the expected value of each of the schedule activities for which payment is required.

B. The cost breakdown of the Detailed Construction Schedule shall have a direct correlation to the Schedule of Values to be used as the basis for Applications for Payment.

1.5 UPDATING OF CONSTRUCTION SCHEDULE/PROGRESS REPORTS

A. Not less than seven (7) calendar days before the submission of the monthly progress payment request, or on a date specified by the Construction Manager, the Contractor shall arrange for its Project Manager, Superintendent and necessary subcontractors and suppliers to attend a monthly schedule meeting with the Construction Manager to review the Contractor's report of actual progress. Said report shall set forth up-to-date and accurate progress data, and shall be prepared by the Contractor in consultation with all principal subcontractors and suppliers.

B. The progress report of the Contractor shall show the activities, or portions of activities, completed during the reporting period, the actual start and finish dates for these activities, remaining duration and/or estimated completion dates for activities currently in progress, and quantities of material installed during the reporting period.

C. The Construction Manager will produce a computerized update worksheet for the Contractor to complete as a part of this process.

D. At the monthly schedule meeting a total review of the Project will take place including but not limited to, the following:

1. Current update of the Detailed Construction Schedule
2. Anticipated detailed construction activities for the subsequent report period
3. Critical items pending
4. Contractor requested changes to the Detailed Construction Schedule.

E. The Contractor shall submit a narrative with the progress report which shall include, but not be limited to, a description of problem areas, current and anticipated delaying factors and their impact, explanations of corrective actions taken or planned, any proposed newly planned activities or changes in sequence, and proposed logic for a Recovery Schedule, if required, as further described herein. The report shall also include:

1. A narrative describing actual Work accomplished during the reporting period
2. A list of major construction equipment used on the Project during the reporting period
3. The total number of men by craft actually engaged in the Work during the reporting period, with such total stated separately as to office, supervisory, and field personnel
4. A manpower and equipment forecast for the succeeding thirty (30) days, stating the total number of men by craft, and separately stating such total as to office, supervisory and field personnel
5. A list of Contractor supplied materials and equipment, indicating current availability and anticipated job site delivery dates
6. Anticipated changes or additions to Contractor's supervisory personnel.

F. As part of the updating process, the Construction Manager will calculate, based upon progress data provided by the Contractor and agreed to by the Construction Manager, the value of Work completed based on the sum of the cost loading amounts for all activities, including activities specifically defined for stored materials, less the amount previously paid. Summation of all values of each activity less the appropriate percent of retainage shall be the maximum amount payable to the Contractor, provided that the Contractor has complied with all requirements of the Contract Documents.

G. No invoice for payment shall be submitted and no payment whatsoever will be made to the Contractor until the required narrative reports, as defined herein, have been submitted and the Detailed Construction Schedule has been updated.

1.6 RECOVERY SCHEDULE

A. Should the updated Detailed Construction Schedule, at any time during the Contractor's performance, show, in the sole opinion of the Construction Manager, that the Contractor is behind schedule for any milestone or completion date for any location or category of work, the Contractor, at the request of the Construction Manager, shall prepare a Recovery Schedule within five (5) days, at no additional cost to the County (unless the County is solely responsible for the event or occurrence which has caused the schedule slippage), explaining and displaying how the Contractor intends to reschedule its Work in order to regain compliance with the Detailed Construction Schedule within thirty (30) calendar days.

B. If the Contractor believes that all of the time can be recovered within thirty (30) calendar days, the Contractor will be permitted to prepare a Recovery Schedule as set forth below. However, if the Contractor believes it will take more than thirty (30) days to recover all of the lost time, it shall prepare and submit a request for revision to the Detailed Construction Schedule and comply with all of the requirements of a Schedule Revision as set forth in Paragraph 8 below.

C. The Contractor shall prepare and submit to the Construction Manager a one month maximum duration Recovery Schedule, incorporating the best available information from sub consultants, subcontractors and others which will permit a return to the Detailed Construction Schedule at the earliest possible time. The Contractor shall prepare a Recovery Schedule to the same level of detail as the Detailed Construction Schedule. The Recovery Schedule shall be prepared in coordination with other separate contractors on the Project.

D. Within two (2) days after submission of the Recovery Schedule to the Construction Manager, the Contractor and any of the necessary subcontractors, suppliers, vendors, manufacturers, etc. shall participate in a conference with the Construction Manager to review and evaluate the Recovery Schedule. Within two (2) days of the conference, the Contractor shall submit the revisions necessitated by the review for the Construction Manager's review and approval. The Contractor shall use the approved Recovery Schedule as its plan for returning to the Detailed Construction Schedule.

E. The Contractor shall confer continuously with the Construction Manager to assess the effectiveness of the Recovery Schedule. As a result of these conferences, the Construction Manager will direct the Contractor as follows:

1. If the Construction Manager determines the Contractor continues behind schedule, the Construction Manager will direct the Contractor to prepare a Schedule Revision and comply with all of the requirements of a Schedule Revision as stated herein and the other requirements of the Contract Documents; provided, however, that nothing herein shall limit in any way the rights and remedies of the County and

Construction Manager as provided elsewhere in the Contract Documents; or

2. If the Construction Manager determines the Contractor has successfully complied with provisions of the Recovery Schedule, the Construction Manager will direct the Contractor to return to the use of the approved Detailed Construction Schedule.

F. In carrying out any approved Recovery Schedule, or whenever it becomes apparent that any critical activity completion date may not be met, the Contractor shall take any or all of the following minimum actions, as may be required, at no additional cost to the County:

1. Increase manpower to put the Work back on schedule.
2. Increase the number of working hours per shift, shifts per working day, working days per week, amount of construction equipment, or any combination which will place the Work back on schedule.
3. Reschedule activities to achieve maximum practical concurrence and place the Work back on schedule.

G. If the Contractor fails to take appropriate action as required by this Paragraph 7 to recover delays in the schedule, the Construction Manager may take action to attempt to put the Work back on schedule and deduct the cost of such action from monies due or to become due the Contractor in accordance with the Contract Documents.

1.7 SCHEDULE REVISIONS

A. Should the Contractor desire to or be otherwise required under the Contract Documents to make modifications or changes in its method of operation, its sequence of Work or the duration of the activities in its Construction Schedule, it shall do so in accordance with the requirements of this Paragraph and the Contract Documents. The approved Detailed Construction Schedule may only be revised by written approval of the Construction Manager as provided herein.

B. The Contractor shall submit requests for revisions to the Detailed Construction Schedule to the Construction Manager, using a Schedule Revision Form provided by the Construction Manager, together with written rationale for revisions and description of logic for rescheduling work, substantiating that the milestone and completion dates will be met as listed in the Contract Documents. Proposed revisions acceptable to the Construction Manager and County will be approved in writing and incorporated into the Detailed Construction Schedule.

C. Requests for revision will be accompanied by evidence acceptable to the Construction Manager that the Contractor's suppliers, subcontractors and sub-subcontractors are in agreement with the proposed revisions.

D. If there are separate contractors on the Project, the approval of the separate contractors shallbe obtained to make the proposed schedule revisions. If accepted by the Construction Manager and County, the revisions shall be binding upon the Contractor and all separate contractors on the Project.

E. The impact of all change orders to this Contract shall be included in the Detailed Construction Schedule.

1.8 FLOAT TIME

A. Float or slack time associated with one chain of activities is defined as the amount of time between earliest start date and latest start date or between earliest finish date and latest finish date for such activities, as calculated as part of the currently approved construction schedule. Float or slack time shown on the currently approved construction schedule is not for exclusive use or benefit of either the County or the Contractor and is available for use by either of them according to whichever first needs the benefit of the float to facilitate the effective use of available resources and to minimize the impact of Project problems, delays, impact, acceleration or changes in the Work which may arise during performance. The Contractor specifically agrees that float time may be used by the County or Construction Manager in conjunction with their review activities or to resolve Project problems. The Contractor agrees that there will be no basis for any modification of the milestone or completion dates or an extension of the Contract Time, or a claim for additional compensation as a result of any Project problem, delay, impact, acceleration, or change order which only results in the loss of available float on the currently approved construction schedule.

B. Float time shown on any construction schedule shall not be used arbitrarily by the Contractor in a manner which, in the opinion of the Construction Manager, unnecessarily delays separate contractors from proceeding with their work in a way which is detrimental to the interests of the County.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 32 13

SECTION 01 32 20

CONSTRUCTION PROGRESS REPORTING

PART I - GENERAL

1.1 DAILY REPORTS

A. The Contractor's Superintendent shall prepare and submit Daily Reports throughout the construction phase of the Work. Daily Reports shall be kept in an orderly manner at the site, available for inspection or review when requested by the Construction Manager or the Architect. Copies of Daily Reports shall be accumulated and submitted to the Construction Manager on a weekly basis, on a regular day and time to be determined by the Construction Manager. Failure to submit Daily Reports or to comply with the format requirements below is cause for the Construction Manager to retain additional monies due the Contractor from the monthly Application(s) for Payment until such time as the reports have been brought up to date by the Contractor.

B. Each Daily Report shall include the following information at a minimum:

1. Manpower by subcontractor, trade, and skill level
2. Weather and temperatures (AM and PM)
3. List of visitors to the jobsite
4. Specific work performed with locations
5. Situations or circumstances which could delay the Work or give cause for a time extension or additional cost
6. Instructions requested (and of whom)
7. Materials received
8. Major equipment arrival/departure
9. Total days accrued under the terms of the Contract Documents
10. Accidents and incidents
11. Safety issues
12. Meetings
13. Other significant events at the jobsite

C. The Contractor shall take the necessary action required to specifically alert the Construction Manager to items which could result in impacts to the progress of the Work. Such items shall be clearly highlighted in the report.

D. All Daily Reports shall be clearly handwritten or typed. Poor copies, reports in sloppy or illegible hand writing or on wrinkled paper will not be accepted.

1.2 FIELD CONDITION REPORTS

A. Field condition reports: Immediately on discovery of a difference between field conditions and the contract documents, prepare a detailed report. Submit with a request for information (RFI). Include a detailed description of the differing conditions, together with recommendations for changing the contract documents.

1.3 SPECIAL REPORTS

A. General: Submit special reports to Construction Manager and Architect within one day of an occurrence. Distribute copies of report to parties affected by the occurrence.

B. Reporting unusual events: When an event of an unusual and significant nature occurs at project site, whether or not related directly to the work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Construction Manager and Architect in advance when these events are known or predictable.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 32 20 -2

SECTION 01 32 33

PHOTOGRAPHIC DOCUMENTATION

PART I - GENERAL

1.1 CONSTRUCTION PHOTOGRAPHS, GENERAL

A. Take color photographs on a weekly basis to show progress of the work. Submit photographs with contractor's monthly application for payment.

B. Take photographs beginning at first month of construction activity and terminating at date of final acceptance.

C. Take photographs on same day each week, weather permitting, and at same time of day.

D. Take photographs of same standard locations each week, unless otherwise directed by Owner. Assign a letter to each of the standard photograph locations, for comparison with previous and future submittals.

1.2 SUBMITTAL OF PHOTOGRAPHS

A. Submit photographs in duplicate with contractor's application for payment. Format may be Print or Digital.

B. Print
   1. Size: 8" x 10"
   2. Paper: Glossy
   3. Label back of each photograph with project name, date, description and photograph number of location or element of the work and contractor's name.

C. Digital
   1. Resolution: 5 megapixel
   2. Format: jpeg
   3. Time and date stamp each photograph
   4. File name to include Project Name, letter of photograph location.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 GENERAL INFORMATION

A. This Section covers mandatory provisions for requests for product substitution during the bid period, and submission of product information and for submission of product information and for substitution procedures, after Contract award.

B. Definitions:

1. "Products" are defined to include purchased items for incorporation into the Work, regardless of whether specifically purchased for this Project or taken from the Contractor's stock of previously purchased products.

2. "Materials" are defined as products which must be substantially cut, shaped, worked, mixed, finished, refined or otherwise fabricated, processed, installed or applied to form units of the Work.

3. "Equipment" is defined as a product with operational parts, regardless of whether motorized manually operated, and particularly including products with service connections (wiring, piping, etc.).

4. Definitions in this paragraph are not intended to negate the meaning of other terms used in the Contract Documents, including specialties, systems, finishes, accessories, furnishings, special construction and similar terms which are self-explanatory and have recognized meanings in the construction industry.

1.2 PRODUCT SUBSTITUTION APPROVAL (BID PERIOD)

A. As part of the bidding process, contractors, subcontractors or manufacturers may request approval for product substitutions for items that are specified allowing "or equal".

B. Only products submitted following the proper procedure, detailed in this section, and submitted by the deadline for the last Request for Information, will be reviewed and considered.

1.3 INITIAL PRODUCT SUBMISSION (AFTER CONTRACT AWARD)

A. As part of the Submittal Register specified in Section 01 33 23 of the General Requirements, provide a list showing names of products together with the names of manufacturer of each and, where applicable, the name of the installing subcontractor.

B. Only specified products will be reviewed, except as herein below provided for substitutions.

1.4 PRODUCTS

A. General Product Compliances

1. The compliance requirements for individual products as indicated by the Contract Documents are multiple in nature and may include generic, descriptive, proprietary, performance, prescriptive, compliance with standards, compliance with codes, conformance with graphic details and other similar forms and methods of indicating requirements, compliance with all of same being a requirement.

2. The Contractor's options for selection of products are limited by the Contract Document requirements and by governing regulations, and are NOT controlled by industry traditions or procedures experienced by the Contractor on previous construction projects. Required procedures for the selection of product options include, but are not limited to, the following:

   a. If material specified in the Contract Documents is not available on the current market, alternate materials may be proposed by the Contractor through the Construction Manager for Architect and County approval.
   b. In the Contract Documents where a specific brand, make, or manufacturer is denoted, the intent is that it be considered the standard for establishing the style, type, character and quality level of the article desired, but not as a restriction in the selection process to the specific brand, make or manufacturer named.
   c. Alternate brands, make of material, device or equipment which, in the opinion of the Architect, are recognized as the equal of that specified on the basis of quality, workmanship and economy of operation considerations and are suitable for the purpose intended may qualify for acceptance.
   d. Standards, Codes and Regulations: Where only compliance with an imposed standard, code or regulation is required, selection from among products which comply with requirements including those standards, codes and regulations shall be at the Contractor's option.
   e. Performance Requirements: Provide products which comply with the specific performances specified, and which are recommended by the manufacturer (in published product literature or by individual certification) for the application indicated. Overall performance of a product is implied where the product is specified with only certain performance requirements.
   f. Prescriptive Requirements: Provide products which have been produced in accordance with prescriptive requirements, using specified ingredients and components, and complying with specified requirements for mixing, fabricating, curing, finishing, testing and similar operations during the manufacturing process.

3. Visual Matching: Where matching with an established sample is required, final judgment of whether a product proposed by the Contractor matches the sample satisfactorily lies with the Architect. Where no product within the specified cost range is available for a satisfactory match that complies with requirements, comply with the provisions in the Contract Documents related to "Substitutions" and "Change Orders" for the selection of a matching product outside the established cost category or of a product not complying with requirements.

4. Visual Selection: Except as otherwise indicated, where specified product requirements include "...as selected from manufacturer's standard colors, patterns, textures..." or words of similar effect, the selection of manufacturer and basic product (complying with the requirements) is at the option of the Contractor with the subsequent selection of color, pattern and texture to be by the Architect.

B. Quality Assurance

1. Source Limitation: To the greatest extent possible for each unit of work, provide products, materials or equipment of a singular generic kind and from a single source.

2. Compatibility of Options: Where more than one choice is available as options for Contractor's selection of a product or material, select an option which is compatible with other products and materials already selected. Total compatibility among options is not assured by limitations within the Contract Documents, but must be provided by the Contractor. Compatibility is a basic general requirement of product and material selections.

3. Provide products and materials which are undamaged and unused at the time of installation, and which are complete with accessories, trim, finishes, safety guards and labels, maintenance instructions and other devices and details required for a complete installation and for the intended use and effect.

4. Standard Products: Where available, provide standard products of types which have been produced and used previously and successfully in similar applications on other projects.

5. Continued Availability: Where additional amounts of a product, by the nature of its application, are likely to be needed by the County at a later date for maintenance and repair or replacement work, provide a standard, domestically produced product which is likely to be available to the County at such later date.

6. Warranties and Guarantees: Warranties are in several categories including those indicated in the General Requirements and in the Technical Specifications.

C. Certification

1. Certification of compliance with specification performance standards and manufacturers' specifications and directions shall be furnished for any portion of the Work for which specific performance requirements and/or manufacturers' specifications are listed. The Contractor shall be responsible for securing two (2) copies of each certification as required and transmitting same to the Construction Manager.

2. Each item requiring certification shall be so noted and an affidavit must be filed singly to cover each specified material, installation, application and the like.

D. Certification of Compatibility: If requested, the material and equipment manufacturers shall certify in writing that:

1. Other manufacturers' materials and/or equipment coming in contact with their product are compatible with their product in every way and that the intended performance of the system in which their product is incorporated will not be affected as a result of such contact. Also, that a physical breakdown of their product by chemical reaction or otherwise will not occur as a result of such contact.

2. The combination of products by one manufacturer to make up the manufacturers specified system will contribute to the performance of the system as intended, and will remain operational, reliable and durable. The manufacturer will be the source of routine maintenance and replacement parts.

E. Nameplates: Except as otherwise indicated for required approval labels, and operating data, do not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view either in occupied spaces or on the exterior of the Work.

1. Labels: Locate required labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface which, in occupied spaces, is not conspicuous.

2. Equipment Nameplates: Provide permanent nameplate on each item of service-connected or power operated equipment. Indicate manufacturer, product name, model number, serial number, capacity, speed, ratings and similar essential operating data. Locate nameplates on an easily accessed surface which, in occupied spaces, is not conspicuous.

F. Reuse of Existing Material

1. Except where specified or approved in writing, materials and equipment removed from an existing structure shall not be used in the Work.

2. Where use of existing materials and/or equipment is specified or approved in writing, use special care in removing, handling, storing and reinstallation to assure proper function of same in the completed Work.

1.5 CONSIDERATION OF SUBSTITUTIONS

A. The requirements for substitutions do not apply to specified Contractor options on products and construction methods. Revisions to Contract Documents, where requested by the County or the Architect, are "changes" and not "substitutions." The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities do not constitute "substitutions", nor do they constitute a basis for change orders, except as provided for in the Contract Documents. Otherwise, the Contractor's requests for changes in products, materials and methods of construction required by the Contract Documents are considered requests for "substitutions", and are subject to the requirements herein.

B. Substitutions for a specified product, after contract award, will be considered only if the specified product is not obtainable, or if delivery date of all such specified products is such that the scheduled date of Substantial Completion of the Work will be delayed if the specified product remains a requirement. The latter cause shall only be considered if the Construction Manager is notified of this condition within thirty (30) days of the Notice to Proceed for the Contract, or if after order has been placed, circumstances beyond the Contractor's control, such as labor disputes affecting manufacture or delivery of product cause such a delay. Under no circumstances will a substitution be allowed for reasons of potential delay due to Contractor's failure to execute timely purchase orders with the vendor or subcontractor, or due to Contractor's failure to submit product data or shop drawings in adequate time to allow for review and possible re-submittal prior to the required delivery date.

C. Qualifications (during Bid Period): Substitutions will only be considered if the specifications denote "or equal" acceptance, and based upon the Contractor's, Subcontractor's or Manufacturer's representation that by submitting any Request for Substitution, they:

1. have researched the proposed substitution and has determined that it is equivalent to or superior in all respects to that specified.

2. confirm that the same warranties or bonds apply for the substitution as for the specified product, material, system and/or construction method.

3. identify all coordination issues resulting from the installation of any accepted substitution into the Work.

D. Qualifications (after Contract Award): Substitutions will only be considered for the reasons noted above, based upon the Contractor's representation that by submitting any Request for Substitution, the Contractor:

1. has researched the proposed substitution and has determined that it is equivalent to or superior in all respects to that specified.

2. confirms that the same warranties or bonds apply for the substitution as for the specified product, material, system and/or construction method.

3. has determined by its best judgment and experience that the proposed substitution is either necessary or in the County's best interest.

4. will coordinate the installation of any accepted substitution into the Work, and will make such changes as may be required for the Work to be complete in all respects.

5. waives claims for additional costs caused by the substitution which may subsequently become apparent.

6. has submitted complete cost data which includes all related costs under its Contract.

E. Disqualifications: No consideration will be given to proposed substitutions when:

1. they are indicated or implied on shop drawing submittals without having been formally requested in accord with provisions specified herein.

2. for their implementation they require a major revision in the Work in order that their use may be accommodated.

3. they materially alter the design concept including color or function originally intended by the specified product.

1.6 SUBMITTAL PROCEDURES ON SUBSTITUTIONS

A. Substitution Request Form: The attached form must be filled out in its entirety and submitted in addition to the submittal information and data noted below. Submit a separate Substitution Request Form for each proposed substitution.

B. Submittals: Submit three (3) copies of each Substitution Request Form and of each of the following related support items:

1. Identify product for which substitution is proposed by description, brand name and catalog number, giving specification section number where specified.

2. Identify in similar manner the proposed substitution and include the manufacturer's name, address and telephone number.

3. Itemize differences between products specified and proposed substitution, including but not limited to physical, color, function and guarantee considerations.
4. Itemize changes in adjacent work occasioned by proposed substitutions.

5. Accompany request with test data from independent laboratory substantiating quality and performance of proposed substitution.

6. Attach manufacturer's complete instructions on storage, handling and installation.

7. Provide list of three projects giving names, addresses and phone numbers of owners, general contractors, and architects where proposed product has been used.

8. State proposed change to the Contract Sum and proposed change to the Contract Time if substitution is accepted and confirmed by Change Order. If the proposed substitution involves a change to the Contract Sum, any change in cost of adjacent or related Work shall be included also.

9. State the number of days (not less than 15) during which the substitution as submitted is subjected to acceptance.

10 Include any cost savings to the County which might result from this substitution.

1.7 ACCEPTANCE OR REJECTION

A. The Architect and/or the Construction Manager have the authority to reject any substitution submittals due to incompleteness or for other good reason.

B. The Architect will be the sole judge of the acceptability of the proposed substitution.

C. Only the Architect, with the County's approval, will have the authority to change the specified standards of quality. However, neither this authority to act under this provision, or any decision made in good faith either to exercise or not to exercise this authority, shall give rise to any duty or responsibility of the Architect to the Contractor, subcontractor of any tier, any or their agents or employees or other persons performing the Work or offering to perform the Work.

D. The Construction Manager will attain a prompt review from the Architect of the Request for Substitution which complies with the above provisions.

E. If no exceptions are taken, approval will be granted in writing. If the substitution represents a change to the Contract Documents, the substitution will be confirmed by Change Order.

F. If accepted, the Contractor explicitly assumes all liability for the fit and function of all surrounding assemblies, and all interfacing devices.

G. If rejected, the Contractor will be promptly notified, and the Contractor shall proceed with the Work in accordance with the Contract Documents.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 33 00

SUBSTITUTION REQUEST FORM (For use by Architect)
For Use During Bid Period

Accepted
Accepted as Noted
Not Accepted
Received Too Late

From:

To: Hartrampf, Inc.

Project: ITB No.

We hereby submit for your consideration the following proposed substitution in lieu of the specified item for the above-named project:
Proposed Substitution:

Specified Item:

Reference Drawing No(s). Reference Specification Section/Paragraph

1. Attach complete information and technical data on any changes to the program, drawings, specifications, or other Contract Documents which the proposed substitution will necessitate for its proper incorporation.
2. Accompany this request with all samples and substantiating data necessary to prove equal quality and performance levels of the proposed substitution to those of the specified item. Clearly mark manufacturer's literature to highlight the indicated equality in performance.
3. Respond to each of the following questions (use additional sheets if necessary):

   A. What is the quality level of the proposed substitution versus that of the specified item?

   B. What are significant variations between the proposed substitution and the specified item?

   C. What affect(s) would the proposed substitution have on the operation and maintenance of the completed facility?

   D. Are manufacturer's warranties for the proposed substitution and the specified item the same?

   Yes No

   If no, explain:

E. What effect would the proposed substitution have on other trades?

F. How would the proposed substitution affect the project schedule?

G. What reason(s) justifies this request for a substitution?

The undersigned states and certifies that the function, appearance, and quality of the proposed substitution are equivalent or superior to those of the specified item and assumes the liability for the provision of equal performance of same as a minimum. THIS FORM MUST BE SIGNED.

SIGNATURE:_____DATE:_____

NAME (type or print):_____

COMPANY:_____

ADDRESS:_____

_____

TELEPHONE:_____

NOTE: Signature shall be by a person having authority to legally bind his/her firm to the above terms. Failure to provide a legally binding signature will result in the retraction of any approval of this proposed substitution.

SUBSTITUTION REQUEST FORM *(For use by Architect)*
For Use Only After Contract Award
Accepted
Accepted as Noted
Not Accepted
Received Too Late

From:_____

To: Hartrampf, Inc.

Project:_____ Contract No._____

We hereby submit for your consideration the following proposed substitution in lieu of the specified item for the above-named project:

Proposed Substitution:

Specified Item:

Reference Drawing No(s). Reference Specification Section/Paragraph

1. Attach complete information and technical data on any changes to the program, drawings, specifications, or other Contract Documents which the proposed substitution will necessitate for its proper incorporation.

2. Accompany this request with all samples and substantiating data necessary to prove equal quality and performance levels of the proposed substitution to those of the specified item. Clearly mark manufacturer's literature to highlight the indicated equality in performance.

3. Respond to each of the following questions (use additional sheets if necessary):

   A. What is the quality level of the proposed substitution versus that of the specified item?

   B. What are significant variations between the proposed substitution and the specified item?

   C. What affect(s) would the proposed substitution have on the operation and maintenance of the completed facility?

SUBSTITUTION REQUEST FORM (continued)
For Use Only After Contract Award

D. Are manufacturer's warranties for the proposed substitution and the specified item the same?

Yes No

If no, explain:

E. What effect would the proposed substitution have on other trades?

F. How would the proposed substitution affect the project schedule?

G. What are accurate comparative cost figures between the proposed substitution and the specified item?

H. What reason(s) justifies this request for a substitution?

The undersigned states and certifies that the function, appearance, and quality of the proposed substitution are equivalent or superior to those of the specified item and assumes the liability for the provision of equal performance of same as a minimum. THIS FORM MUST BE SIGNED.

SIGNATURE:_____ DATE:_____

NAME (type or print):_____

COMPANY:_____

ADDRESS:_____

TELEPHONE:_____

NOTE: Signature shall be by a person having authority to legally bind his/her firm to the above terms. Failure to provide a legally binding signature will result in the retraction of any approval of this proposed substitution.

SECTION 01 33 23

SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 - GENERAL

1.1 GENERAL

A. This Section covers provisions for the submittal of shop drawings, product data, and samples prior to construction, and supplements the Owner-Contractor Agreement.

B. The Contractor is required to make all submittals in accordance with the Contract Documents. Refer to the individual Technical Specifications for identification of equipment and materials for which submittals are required.

C. Provisions in this Section are mandatory procedures for preparing and submitting shop drawings, product data, and samples.

D. Required shop drawings, product data, and samples shall be coordinated, prepared, and submitted so as not to impact the project schedule. Submittals for interfacing units of work, and different categories of submittals for the same work, shall be coordinated and sequenced so that one will not be delayed by another. Adequate time shall be allowed for review by the Architect, and for possible re-submittal. Delays or impacts due to the Contractor's failure to make or process submittals in a timely fashion are solely the responsibility of the Contractor. The Contractor has an obligation to notify the Construction Manager in a timely manner if the submittal review process, with respect to reviews by the Architect might cause a schedule impact on the required delivery of any materials or fabricated assemblies required to execute the Work.

E. Project delays or delays in the purchasing of materials or equipment occasioned by the requirement for resubmission of shop drawings, product data, and samples not in
accordance with the Contract Documents are the Contractor's sole responsibility and will not be considered valid justification for time extensions.

F. No portion of the Work requiring the submittal of shop drawings, product data, or samples shall be commenced until each such submittal has been reviewed by the Architect, and the action required on the returned submittal does not require a correction and re-submittal (i.e., "No Exceptions Taken" or "Make Corrections Noted," or similar notation); and further, each installer shall have possession of such final reviewed submittal prior to commencing its portion of the Work.

G. The Contractor shall be responsible for distribution of all copies of initial and approved submittals required for coordination with others concerned with the Work.

H. Submittals requiring review by the Architect shall be delivered to the Construction Manager's office, unless directed otherwise by the Construction Manager. Submittals are to be scheduled and submitted to allow adequate time for review.

1.2 DEFINITIONS

A. "Shop Drawings" are drawings, diagrams, illustrations, schedules, performance charts, manufacturer's data sheets, brochures and other data which are prepared

and submitted by the Contractor and its subcontractors to illustrate in detail some portion of the Work. The Architect's drawings are not acceptable as shop drawings.

B. "Product Data" are illustrations, standard schedules, performance charts, instructions,brochures, diagrams and other information furnished by the Contractor and its subcontractors to illustrate a material, product, or system for some portion of the Work.

C. "Samples" are physical examples prepared for submission by the Contractor and its subcontractors to illustrate materials, equipment, or workmanship, and to establish standards by which the work will be judged as complying with the Contract Documents. Mock-ups are a special form of samples, too large or otherwise inconvenient for transmittal in the manner specified. Mock-up requirements are specified elsewhere in the Contract Documents.

1.3 SUBMITTAL REGISTER

A. Within ten (10) days of the Contractor's receipt of the Notice of Award, the Contractor shall submit a comprehensive Submittal Register to the Construction Manager, showing all items requiring submission as defined in the General Requirements and the Technical Specifications.

B. No submittals will be accepted or reviewed until the Submittal Register has been submitted, reviewed, and approved by the Architect and the Construction Manager as to content and format.

C. The Submittal Register shall be updated by the Contractor and resubmitted on a monthly basis, or as otherwise required by the Construction Manager.

D. The initial format of the Submittal Register shall be determined by the Contractor. If any aspect is lacking, the Submittal Register shall be reworked and resubmitted in a format as prescribed by and to the level of detail required by the Construction Manager.

E. The Submittal Register shall be organized by Specification Section, and shall be further broken down as submittals from subcontractors will be structured.

F. The Submittal Register shall include all required submittals for test procedures, training programs, operation and maintenance manuals, and any other submittals required by the General Requirements.

G. The Submittal Register shall include the following information at a minimum:

1. Submittal breakdown by Specification Section and Paragraph number.
2. Scheduled date for initial submittal of each item.
3. Number of calendar days required after review to fabricate and deliver the specified item to the jobsite (if applicable).

1.4 PREPARATION OF SUBMITTALS

A. General Identification: All shop drawings, product data, and samples submitted for review shall have the following identification data, as applicable, contained thereon or permanently affixed thereto.

1. Date of submission and the dates of any previous submissions
2. Project title and location
3. Job number

4. Contract identification
5. Names of the Contractor, subcontractor, installer, supplier, and manufacturer
6. Identification of product (brand name, model number), use, and location
7. For each shop drawing: drawing number, drawing title, revision number, and date of drawing and all subsequent revisions
8. Corresponding Specification Section and Paragraph reference from Contract Documents
9. Field dimensions, clearly identified as such
10. Relation to adjacent or critical features of Work or materials
11. Applicable standards, such as ASTM or Federal Specification numbers
12. Identification of deviations from the Contract Documents
13. Identification of revisions from previous submittals (if a re-submittal)
14. Contractor's stamp, initialed or signed, and dated

B. Shop Drawing Preparation

1. Provide newly-prepared information with graphics at accurate scale (except as otherwise indicated).
2. Number all sheets consecutively.
3. Indicate all working and erection dimensions. Identify all dimensions based on field measurement.
4. Show arrangements and sectional views.
5. Indicate kinds of materials and finishes, anchoring and fastening details, including information for making connections to other Work. Furnish installation instructions to be followed in the field to achieve manufacturer's designed and planned intentions.
6. Indicate corresponding detail numbers from Contract Drawings in addition to numbering systems used on shop drawings.
7. Form:

    a. Up to 11" x 17" in size may be either prints on opaque paper, or reproducible transparency. The use of 8-1/2" x 14" size shall not be acceptable.
    b. Prepare submissions larger than above on reproducible, correctable transparent sheets between 18" x 24" (minimum) and 30" x 45" (maximum) in size.

8. Number of copies to be submitted:

    a. The Contractor shall submit one (1) reproducible copy and five (5) print copies for review.
    b. Copies shall be grouped together such that one set of all copies can be removed immediately without the necessity to remove and re-sequence the remaining copies.

9. Associated drawings relating to a complete assembly shall be submitted simultaneously to the greatest extent possible, so that each may be checked in relation to each other and the total assembly.

10. Composite Coordination Shop Drawings:

    a. The locations and routing of all mechanical and electrical systems shall be delineated on coordinated composite layout drawings, to be submitted by the Contractor and reviewed by the Architect and the Construction Manager according to the procedures above. Such coordination shall consider all other building systems, including structural members and their elevations.
    b. The composite drawings shall accommodate layering of ductwork,

plumbing supply, waste, roof drainage and vent piping, fire protection piping, HVAC piping, electrical conduit, control systems conduit, light fixture locations, sprinkler head locations, HVAC ceiling-mounted and wall-mounted air devices, and life-safety system device locations.

c. Provide plan views of all ceiling plenum spaces, duct and pipe shafts, and mechanical and electrical rooms. Show all ceiling grid patterns and walls. Clearly indicate top and bottom elevations of work, including elevations of wall mounted devices.
d. Clearly indicate all penetrations of smoke and fire-rated walls and ceilings. Indicate recommended smoke stop or fire stop method, cross-referenced to Division 7 Specification requirements.
e. Composite drawings shall be 1/4" = 1'-0" minimum scale.

C. Product Data Preparation

1. Product data submittals shall be made by Specification Section. All items within a Specification Section requiring submissions shall be submitted together. If two or more Sections require inter-coordination (e.g. Air Handling Unit and Vibration Isolation, or Emergency Generator and Transfer Switch), they shall be submitted at the same time. Each individual submittal item shall be marked to show the Specification Paragraph number which pertains to that item.
2. Include manufacturer's standard printed recommendations for application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked, and coordination requirements.
3. Clearly mark each copy to identify pertinent products, brand names, or models, and to indicate which choices and options are applicable to the Work.
4. Modify each copy to delete information which is not applicable to the Work. Supplement standard information to provide information specifically applicable to the Work and to job conditions.
5. Include performance characteristics and capacities.
6. Include dimensions and clearances required.
7. Include wiring or piping diagrams and controls.
8. Form:

   a. Submit all items within a Specification Section in a tabbed binder, with an index.
   b. Submittals for multiple but related Specification Sections may be grouped in the same binder, if adequately indexed and tabbed for easy reference.
   c. If product submittals bound together exceed the capacity of one binder, two or more binders shall be used, and notations shall be made on the covers of each indicating the number of binders in the set and the number of each binder (i.e., 2 of 3).

9. Number of copies to be submitted: five (5).

D. Sample Preparation

1. Provide samples which are identical with the final condition of proposed materials or products for the Work.

2. Provide "range" samples (not less than three (3) units) where unavoidable variations must be expected, and describe or identify variations between units of each set.
3. Provide a full set of optional samples where selection is required.
4. Provide information with each sample to show generic description, source or product name and manufacturer, limitations, and compliance with standards.
5. Number of samples to be submitted: three (3).
6. Maintain one set of all approved samples at the jobsite, in suitable condition, for quality control comparisons by the Construction Manager. Jobsite quality control samples shall become the property of the County.
7. Returned submittals which are intended or permitted to be incorporated into the Work shall be so indicated in the individual Specification Sections, and shall be in a suitable and undamaged condition at the time of incorporation.

E. Other Submittals

1 Inspection and Test Reports: Classify each as either a "shop drawing" or "product data," depending on whether report is uniquely prepared for the Project or a standard publication of workmanship control testing at point of production, and process accordingly.
2. Letters of Material Certification: Submit for specified materials, items, or equipment, and when requested. Letters of certification shall certify that material or equipment submitted complies with the Contract Documents and shall be submitted with substantiating supporting data (i.e., test reports from approved independent testing laboratory or other approved source). Classify as "product data."
3. Fire Rating and Acoustical Rating Certifications: Submit notarized certifications with shop drawings and material samples which are required to show or have a fire or acoustical rating.

1.5 TRANSMITTAL

A. Transmit all shop drawings, product data, and samples to the Construction Manager for transmittal to the Architect.

B. Accompany each submittal to the Construction Manager with a transmittal letter, in duplicate, containing the Project name, Contractor's name, contract number and description, and brief description of submittal, including the number of drawing sets, data sets, and/or samples included. Include an outline of deviations, if any, from the requirements of the Contract Documents, and itemize proposed changes in the Contract Sum or Contract Time, if any. Where no change in the Contract Sum or Contract Time is indicated by the Contractor, it shall be concluded that no such change is involved for making the change.

1.6 CONTRACTOR'S RESPONSIBILITIES

A. The Contractor shall prepare and submit all submittals with promptness and in accordance with the project schedule.

B. The Contractor shall determine and verify prior to submittal of any shop drawing, product data, or sample, the following:

1.Field measurements
2.Field construction criteria and job conditions
3.Catalog numbers and similar data
4.Conformance with Specifications

C. Any deviation in a submittal from the requirements of the Contract Documents shall be called to the attention of the reviewing party in writing at the time of the submittal.

D. The Contractor shall affix its stamp, with initials or signature, and date, prior to submittal to the Construction Manager, indicating its review and concurrence that the submittal conforms to the Contract Documents.

E. All copies of submittals shall include the stamp indicated above, and previous revisions, if any, shall be clouded and noted. Failure to adhere to these requirements will result in the return of the un-reviewed submittal to the Contractor for re-submittal, with the Contractor responsible for any impact to the project schedule resulting there from.

F. If re-submittals are necessary, they shall be made as specified above for initial submittals. Re-submittals shall highlight all revisions made and the cover shall include the phrase, "Re-submittal No.

G. All re-submittals shall carry the same submittal number but shall have a suffix designation which is designed to signify that the package is a re-submittal. This suffix designation shall be changed for each subsequent re-submittal.

1.7 CONSTRUCTION MANAGER'S RESPONSIBILITIES

A. The Construction Manager will provide a general review of all submittals for completeness and compliance with submittal procedures as outlined herein.

B. The Construction Manager will return to the Contractor, without review, all submittals not bearing the Contractor's review stamp or not indicating that the submittal has been reviewed by the Contractor. All costs resulting from unnecessary delays of this type will be the responsibility of the Contractor.

C. The Construction Manager will forward acceptable submittals to the Architect for review.

D. After the Architect review, the Construction Manager will forward reviewed submittals to the Contractor and retain one copy for the County. The Contractor will provide additional distribution copies to the Construction Manager of any submittals in a "No Exceptions Taken" status as directed by the Construction Manager at any time during execution of the contract.

1.8 ARCHITECT'S RESPONSIBILITIES

A. Shop drawings, product data, and samples will be examined by the Architect with reasonable promptness and returned to the Construction Manager. Allow a reasonable time for processing by the Architect and the Construction Manager in addition to transit time.

B. Shop drawings, product data, and samples will be returned to the Contractor noted for action as follows:

Action	Meaning
Reviewed:	Architect finds no contract deviations on/of the submittal. Contractor may incorporate the submittal into the work. Contractor in doing so has full responsibility for complying with the contract. Architect will endeavor to identify any deficiencies with submittal but takes no responsibility for oversight.
Reviewed and Noted:	Architect finds minor deficiencies with submittal and so notes on the submittal. Contractor may incorporate corrected work into the project and provide corrected submittal for project record.
Resubmit:	Architect finds submittal in non-conformance or there are sufficient deviations from the contract documents that require revisions and re-submittals prior to incorporation into the work.
Reviewed for Information only:	Architect reviewed the document only to further understand the Contractor's intent.

C. The Architect will apply its document review stamp, with signature or initials, on all reviewed copies of submittals. Through the Construction Manager, one copy of all reviewed submittals will be returned to the Contractor; for shop drawings where reproducible copies are submitted, one print and one reproducible copy will be returned.

D. The Technical Specifications for structural, mechanical and electrical work may modify the above requirements and shall govern in the event of conflict.

E. If the Contractor has a complaint with either the time required or the information provided by the Architect's review, it shall be expressed in writing at the time the submittal is returned. Failure by the Contractor to file such complaints at that time will prevent attempting to allege delays or impacts resulting there from at a later date. Such complaints must be fully detailed, and if additional information is requested by the Construction Manager, it shall be provided as soon as becomes available, but in no case later than ten (10) days from the return of the submittal in question.

F. The Architect's review of a submittal shall not be construed as an indication that it is correct or suitable, nor that Work represented by a submittal complies with the Contract Documents, except as to matters of finish, color, and other aesthetic matters left to the Architect's decision by the Contract Documents. Further, reviews by the Architect of submittals of details for any material, apparatus, device, etc., will not relieve the Contractor from responsibility for furnishing same of proper dimension, size, quantity, and quality to efficiently perform the Work and carry out the requirements and intent of the Contract Documents.

1.9 RECORD SUBMITTALS

A. At Substantial Completion of the Work, the Contractor shall deliver to the Construction Manager one copy of all final, approved submittals for the County's record.

B. Record submittals not in the form of drawing rolls shall be neatly labeled and organized by Specification Section and boxed in a "Banker's Box" or equivalent. Rolls of shop drawings shall be labeled appropriately for easy reference.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 33 23

SECTION 01 35 00

SPECIAL PROCEDURES

PART I - GENERAL

1.1 ONGOING CONSTRUCTION MANAGER OPERATIONS/SITE ACCESS

A. Construction Parking: Area available for construction parking is limited to within the limits of construction shown on the drawings. No parking is allowed on areas adjacent to the construction limits or on any of the permanent spaces available for the Construction Manager's employees or visitors. Contractor shall be responsible for providing off-site parking and worker transportation to the site as required meeting this condition.

B. Normal Business Hours: The County Government's normal business hours are 8 AM to 5 PM on Monday through Friday.

C. Construction Manager Notifications: Contractor shall coordinate with Construction Manager prior to any construction operations that interfere, alter or otherwise impact ongoing business operations. Such notice shall be provided in writing and, unless otherwise specified, with not less than seven (7) days advance notice. Examples requiring notification include work in existing buildings, high noise levels, shut down of existing buildings, temporary interruption of utilities, and work outside of normal business hours.

D. Access to Existing Buildings: Access shall be coordinated with the Construction Manager. All work in the existing buildings shall be performed during the hours specified by Construction Manager. Construction Manager notification shall be provided in writing not less than seven (7) days prior to commencing work in existing buildings. Contractor shall comply with any reasonable Construction Manager security procedures for work in existing buildings.

E. Temporary Offices and Storage for the Contractor shall be located within the zone designated by Construction Manager and Facilities Management.

1.2 LIMITS OF CONSTRUCTION

A. Maintaining the site in its existing condition is of the highest priority to the Construction Manager. This includes retaining existing sidewalk, curb and landscape. Strict limits of construction for work on the site must be observed. The limits of construction define an area for site access, staging, parking, building access and all other construction related activities. These limits shall be clearly defined on the site through temporary fencing or other means acceptable to the Construction Manager and shall be strictly enforced by the Contractor.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 35 29

HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES

PART1 GENERAL

1.1 DESCRIPTION

A. The work of this section consists of establishing an effective accident prevention program and providing a safe environment for all personnel and visitors.

1.2 SUBMITTALS

A. Accident Prevention Program: Before on-site work begins, submit for approval an accident prevention program. The Project Manager will review the proposed program for compliance with OSHA and project requirements. If the program requires any revisions or corrections, the Contractor shall resubmit the program within 10 days. No progress payments will be made until the program is approved. The program shall include:
   1. Name of responsible supervisor to carry out the program.
   2. Weekly and monthly safety meetings.
   3. First aid procedures.
   4. Outline of each phase of the work, the hazards associated with each major phase, and the methods proposed to ensure property protection and safety of the public, National Park Service personnel, and Contractor's employees. Identify the work included under each phase by reference to specification section or division numbers.
   5. Training, both initial and continuing.
   6. Planning for possible emergency situations, such as floods, fires, cave-ins, slides, explosions, power outages, and wind storms. Such planning shall take into consideration the nature of construction, site conditions, and degree of exposure of persons and property.
   7. Cleaning.
   8. Fire Protection.

B. Submit a copy of test reports, as required by OSHA, for personnel working with hazardous materials.

C. Submit a report of safety meetings and of inspections.

D. Upon request, submit proof of employees' qualifications to perform assigned duties in a safe manner.

1.3 QUALITY ASSURANCE

A. Clauses entitled "Accident Prevention" and "Permits and Responsibilities" of the contract. In case of conflicts between Federal, state, and local safety and health requirements, the most stringent shall apply. Equipment or tools not meeting OSHA requirements will not be allowed on the project sites. Failure to comply with the requirements of this section and related sections may result in suspension of work.

B. Qualifications of Employees:
   1. Ensure that employees are physically qualified to perform their assigned duties in a safe manner.
   2 Do not allow employees to work whose ability or alertness is impaired because of drugs, fatigue, illness, intoxication, or other conditions that may expose themselves or others to injury.

3. Operators of vehicles, mobile equipment, hoisting equipment, and hazardous plant equipment shall be able to understand signs, signals, and operating instructions, and be capable of operating such equipment. Provide operating instructions for all equipment. Newly hired operators shall be individually tested by an experienced operator or supervisor to determine if they are capable of safely operating equipment.

1.4 ACCIDENT REPORTING

A. Reportable Accidents: A reportable accident is defined as death, occupational disease, traumatic injury to employees or the public, property damage by accident in excess of $100, and fires. Notify Project Manager immediately in the event of a reportable accident. Within 7 days of a reportable accident, fill out and forward to Project Manager an Accident/Property Damage Report.

B. All Other Accidents: The Contractor shall report all other accidents to the Project Manager as soon as possible and assist the Project Manager and other officials as required in the investigation of the accident.

PART 2 PRODUCTS

2.1 FIRST AID FACILITIES

A. Provide adequate facilities for the number of employees and the type of construction at the site.

2.2 PERSONNEL PROTECTIVE EQUIPMENT

A. Meet requirements of NIOSH and MSHA.

PART 3 EXECUTION

3.1 EMERGENCY INSTRUCTIONS

A. Post telephone numbers and reporting instructions for ambulance, physician, hospital, fire department, and police in conspicuous locations at the work site.

3.2 FIRE AND LIFE SAFETY

A. Provide and maintain the fire and life safety requirements in NFPA 241 (Standard for Safeguarding Construction, Alteration, and Demolition Operations).

B. Contractor shall have a Hazard Communications Plan; store hazardous materials in accordance with manufacturer's and OSHA recommendations; immediately report all spills of hazardous materials to the park; and maintain a spill emergency response kit.

3.3 PROTECTIVE EQUIPMENT

A. Inspect personal protective equipment daily and maintain in a serviceable condition. Clean, sanitize, and repair, as appropriate, personal items before issuing them to another individual.

B. Inspect and maintain other protective equipment and devices before use and on a periodic basis to ensure safe operation.

3.4 SAFETY MEETINGS

A. As a minimum, conduct weekly 15-minute "toolbox" safety meetings. These meetings shall be conducted by a foreman and attended by all construction personnel at the worksite.

B. Conduct monthly safety meetings for all levels of supervision. Notify the Project Manager of meeting dates and times. These meetings shall be used to review the effectiveness of the Contractor's safety effort, to resolve current health and safety problems, to provide a forum for planning safe construction activities, and for updating the accident prevention program. The Project Manager will attend the meeting and enter the results of the meetings into the daily log.

3.5 HARD HATS AND PROTECTIVE EQUIPMENT AREAS

A. A hard hat area will be designated by the Project Manager. The hard hat area shall be posted by the Contractor in a manner satisfactory to the Project Manager.

B. It is the Contractor's responsibility to require all those working on or visiting the site to wear hard hats and other necessary protective equipment at all times. As a minimum, provide six hard hats for use by visitors. Change liners before reissuing hats.

3.6 TRAINING

A. First Aid: Provide adequate training to ensure prompt and efficient first aid.

B. Hazardous Material: Train and instruct each employee exposed to hazardous material in safe and approved methods of handling and storage. Hazardous materials are defined as explosive, flammable, poisonous, corrosive, oxidizing, irritating, or otherwise harmful substances that could cause death or injury.

END OF SECTION

SECTION 01 40 00

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Refer to the Technical Specifications for specific quality control activities to be performed, and for the inspection and testing required by public authorities having jurisdiction.

B. The Contractor shall furnish all labor, materials, tools, equipment and services for quality control of materials, components and systems incorporated or to be incorporated the Work, so as to adequately and acceptably perform the Work as required by the Contract Documents. All testing and inspection, whether required by the Contract Documents; by laws, ordinances, rules, regulations, codes or orders of any public authority having jurisdiction; or whether performed by the Contractor for qualification of materials or its convenience, shall be at the Contractor's expense unless otherwise indicated in the Contract Documents.

C. The Contractor shall be fully responsible for quality control. The Contractor shall employ an individual on its staff who shall be primarily responsible for ensuring an acceptable level of quality on the Project. This individual shall not be the Contractor's Project Superintendent.

D. The Contractor shall completely coordinate its Work internally and with the work of any separate contractors. Although such Work may not be specifically indicated in the Contract Documents, the Contractor shall furnish and install all supplementary or miscellaneous items, appurtenances, and devices incidental to or necessary for a sound, secure, and complete installation.

E. At any time during the execution of the Contract, the Construction Manager may notify the Contractor that some aspect of quality control is not being correctly performed. If the Contractor fails to respond to a request for quality control surveys or reports, or to a second request for proper preparatory work in an area for the purpose of a test or inspection, including a punch list inspection, the Construction Manager or the County may provide this work and deduct the cost of such work from the value of the Contract.

1.2 SPECIAL INSPECTIONS TESTING

A. Special Inspections for the Fairburn Senior Center project will be performed by a consultant to Fulton County.

B. The Special Inspections consultant will provide a Schedule of Special Inspections and a stamped and dated Statement of Special Inspections for this project, per the Standard Building Code requirement for Special Inspections fro this project.

C. Services shall include, at a minimum:
1. Concrete work (subgrade preparation, reinforcement and concrete)
2. Masonry/reinforced masonry
3. Structural steel connections (bolts and welds)

D. The contractor will be required to submit a Statement of Contractor's responsibility, per IBC 1705.3, to Fulton County Department of Environment and Community Development, to include:
   1. Acknowledgement of awareness of the special requirements contained in the quality assurance plan.
   2. Acknowledgement that control will be exercised to obtain conformance with the construction documents approved by the building official.
   3. Procedures for exercising control within the contractor's organization, the method and frequency of reporting, and the distribution of the reports.
   4. Identification and qualifications of the person (s) exercising such control and their position (s) in the organization.

1.3 OTHER REQUIRED TESTING AND INSPECTION

A. The Contractor shall be responsible for all other tests and inspections which may be required, including, but not limited to testing and certification of conveyances, mechanical systems (including balancing), electrical systems, fire alarm and security systems, and other special systems, any of which may or may not require the use of an independent testing and inspection agency.

1.4 JOB CONDITIONS

A. Employment of an independent testing and inspection agency shall not relieve the Contractor of its obligation to comply with the Contract Documents.

B. Where operating tests are specified, the Contractor shall test its Work as it progresses, at its own expense, and shall make satisfactory preliminary tests in all cases prior to applying for official tests. Tests shall be in the manner specified for the appropriate type of Work.

C. Each test shall be made on the entire system for which such test is required wherever practical. In case it is necessary to test portions of the Work independently, the Contractor shall do so without additional compensation. Should defects appear, they shall be corrected by the Contractor and the test repeated until the installation is acceptable to the Architect and the Construction Manager. No Work of any kind shall be covered or enclosed before it has been tested and approved.

1.5 PROCEDURES AND REPORTS

A. Prior to the start of construction, submit to the Construction Manager a complete list of proposed tests and inspections according to specification section and Schedule of Special Inspections.

B. Perform, or cause to be performed, all required inspections, sampling and testing of materials and methods of construction, utilizing methods required by the specifications and applicable standards. The Contractor's quality assurance specialist shall observe all sampling and testing and shall review all test results.

C. Test procedures:
   1. Each test to be performed shall have a test procedure which shall include a detailed description of the specific steps which will be taken by the testing technician.
   2. Each test procedure shall be submitted to the Construction Manager for review at least four (4) weeks prior to the time that the Contractor wishes or is required to perform the test.
   3. No formal acceptance test will be performed without an approved test procedure being utilized.

D. Report each test/inspection/sampling in the form specified below. All reports shall be submitted promptly after completion of the test.

E. Retest all failed materials, components, and systems.

F. Record all test and inspection results and maintain a complete log of the testing and inspection program. This log shall be submitted for the Architect's or the Construction Manager's review upon request.

G. Equipment testing:
   1. All pieces of rotating mechanical equipment and electrical equipment shall be formally tested prior to acceptance by the Architect, the Construction Manager and the County. This requirement will not be waived by temporary or permanent occupancy of some or all parts of the finished construction.
   2. The Construction Manager shall have the final determination as to whether or not a piece of equipment shall require a formal acceptance test.
   3. No equipment warranty period shall be started until a formal acceptance test has been successfully completed.
   4. No final payment for any such equipment shall be made until a formal acceptance test has been successfully completed.

H. Test / inspection procedures and reports shall include the following information at a minimum:
   1. Project name and number
   2. Project location
   3. Applicable specification section and paragraph
   4. Type of test or inspection
   5. Name of testing/inspecting agency (if used)
   6. Name(s) of testing/inspecting personnel
   7. Date of test/inspection
   8. Record of field conditions encountered, including weather
   9. Observations regarding compliance
   10. Test method used
   11. Results of test/inspection
   12. Date of report
   13. Signature of testing/inspecting personnel

I. Where test/inspection reports indicate non-compliance, provide report on colored bond paper.

J. All testing/inspection reports produced by an independent testing and inspection agency shall be submitted to the Construction Manager directly from the independent testing and inspection agency, with copies to the Contractor.

1.6 SPECIAL INSPECTION TESTING AGENCY DUTIES AND LIMITATIONS OF AUTHORITY

A. Provide qualified personnel at site after due notice; cooperate with the Contractor, the Architect, and the Construction Manager in performance of services.

B. Promptly notify the Construction Manager of irregularities or non-conformance of Work which are observed during performance of services.

C. Attend preconstruction conferences and progress meetings if an as requested by the Construction Manager.

D. An independent testing and inspection agency is not authorized to:
1. Release, revoke, alter, or enlarge on requirements of the Contract Documents.
2. Approve or accept any portion of the Work.
3. Assume any duties of the Contractor.
4. Stop the Work.

1.7 CONTRACTOR'S DUTIES TO SPECIAL INSPECTION OR INDEPENDENT TESTING AND AGENCY

A. The Contractor shall be responsible to coordinate all work of the testing and inspection agency including notifications, coordination on and off site and distribution of test reports.

B. The Contractor shall cooperate with testing and inspection agency personnel, and provide access to Work.

C. The Contractor shall provide incidental labor and facilities to provide access to work to be tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, and for storage and curing of test samples.

D. The Contractor shall notify the testing and inspection agency and the Construction Manager of any test or inspection 48 hours in advance to allow for proper coordination,

E. Unless noted otherwise, field testing procedures shall be performed by the Contractor under the direction and observation of the independent testing and inspection agency.

1.8 MOCK-UPS

A. Provide mock-ups and testing for Work as required by the Contract Documents.

B. Build mock-ups to be used as specimens for visual inspection or testing. Use the same materials, finishes, details, methods and anchorage system proposed for the respective installations. Simulate actual construction conditions. Provide extra materials as may be

required to replace any which fail during tests, except intentional failure tests beyond specified performance requirements.

C. Schedule erection and approval inspections of mockups in the construction schedule.

D. For waterproof or watertight assemblies, assemble and erect complete, with specified attachment and anchorage devices, flashings, seals, and finishes.

E. Correct any deficiencies and repeat tests as may be required to show compliance with the Contract Documents. Incorporate corrective measures into the final system assembly.

F. Remove mock-up and clear area when work of that section is complete, when approved by the Architect, County and/or Construction Manager.

1.9 PUNCH LIST INSPECTIONS

A. The preparation of the Work or a portion thereof prior to a punch list inspection shall be solely the Contractor's responsibility. The Contractor shall first verify, and then certify that the Work for which a punch list inspection is being requested is in such a state that it may be easily punched out for acceptance by the Architect, the Construction Manager and/or the County. Failure to properly prepare the Work for a punch list inspection shall constitute a failure to perform a quality control duty, and the Construction Manager may take appropriate action as defined in Paragraph 1.1E above.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 40 00

SECTION 01 42 19

REFERENCE STANDARDS

PART I -GENERAL

1.1 APPLICABILITY OF STANDARDS

A. Where reference is made to standards or specifications published by various organizations ("standards"), the Work shall conform to latest edition of such standards as amended and revised in effect at the date of Contract, unless a specific date is indicated.

B. Where material is designated for certain applications, material shall conform to standards designated in the applicable building code governing the Work. Similarly, unless otherwise specified, installation methods and standards of workmanship shall also conform to standards required by such code. Where no particular material is specified for a certain use, the Contractor shall select from choices offered in the governing code.

C. Where a standard does not provide all information necessary for the complete installation of an item, comply with manufacturer's instructions for installation and workmanship.

D. Where specific articles, sections, divisions or headings for standards are not given, such standards shall apply as appropriate. Standards when included in the Contract Documents by abbreviations or otherwise shall form a part of Contract Documents. In the event of conflicts between cited standards and/or the Contract Documents, the more stringent shall govern.

1.2 ABBREVIATIONS AND ACRONYMS

A. Abbreviations and acronyms used throughout the Contract Documents refer to associations,institutes, societies and other public bodies who publish standards which are readily available to the public, and to the titles of the standards which they publish. Where such abbreviations or acronyms are used in the Contract Documents, they shall mean the recognized name of the trade association, standards-generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.

B. Whenever initials representing such a body are shown, followed by a number or a combination of numerals and letters, reference is to a particular standard to which Contractor shall conform. The number or combination of numerals and letters following abbreviation designates the particular standard to be followed.

1.3 CONTRACTOR'S DUTIES AND RESPONSIBILITIES

A. The Contractor shall be responsible when required by Contract Documents, or upon written request from the Construction Manager, to deliver required proof that materials or workmanship, or both, meet or exceed the requirements of a reference standard.

1.4 CONFLICTING STANDARDS

A. Where compliance with two or more standards is specified and where the standards may establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different but apparently equal and other uncertainties to the Architect, through the Construction Manager, for a decision before proceeding.

1.5 COPIES OF STANDARDS

A. Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source.

END OF SECTION 01 42 19

SECTION 01 50 00

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART I - GENERAL

1.1 INTRODUCTION

A. The Contractor shall provide all construction facilities and temporary controls throughout the construction period unless otherwise indicated in the Contract Documents.

B. The Contractor shall pay all costs for providing, maintaining, and removing all construction facilities and temporary controls unless otherwise indicated in the Contract Documents.

1.2 QUALITY ASSURANCE

A. All work specified herein shall be performed in a workmanlike manner and shall be in accordance with applicable codes, OSHA regulations, utility company rules and regulations, and other rules and regulations of any other authorities having jurisdiction.

1.3 JOB CONDITIONS

A. The Contractor shall establish and initiate use of each construction facility or temporary controlat the time first reasonably required for proper performance of Work. Terminate use and remove facilities and controls at earliest reasonable time, when no longer needed or when permanent facilities have, with authorized use, replaced the need.

B. The Contractor shall install, operate, maintain and protect construction facilities and temporary controls in a manner and at locations which will be safe, non-hazardous, sanitary and protective of persons and property, and free of deleterious effects.

C. Conservation: In compliance with County policy on energy/materials conservation, install and operate construction facilities and temporary controls and perform construction activities in a manner which reasonably will be conservative and avoid waste of energy and materials, including water and electric power.

1.4 TEMPORARY UTILITIES - GENERAL

A. The Contractor shall provide and pay all costs for temporary utilities, including consumption costs. Do not use utilities of any existing, permanent operations at site.

B. Make all temporary connections to utilities and services in locations acceptable to the local authorities having jurisdiction. Furnish all necessary labor and materials, and make all installations in a manner subject to the acceptance of such authorities.

C. Maintain all temporary utility installations connections and remove them when no longer required. Restore the services and sources of supply to proper operating condition.

D. The Contractor may extend and use permanent utilities installed for the Project for temporary facilities. Prior to Substantial Completion, remove temporary connections, replace lamps, filters, etc., and restore permanent utilities to specified condition.

E. Metering: Comply with requirements of local utilities for installation of meters for water and electrical power services.

PART 2 - PRODUCTS

2.1 TEMPORARY POWER DISTRIBUTION

A. Temporary electrical power service shall be installed and maintained such that power can be secured at any desired point with no more than a 60 foot extension cord.

B. Service shall be sufficient for the following items:

1. Power centers for miscellaneous tools and equipment used in the construction work, each with a minimum of four 20-amp, 120 volt grounding type outlets. Each outlet shall be provided with ground fault detecting circuit breaker protection.

2. Adequate lighting for safe working conditions provided and maintained on a 24-hour basis, throughout the building including stairways. At least 0.25 watts of incandescent lighting per square foot for general use must be installed and maintained in all areas where work is in progress. Each lamp must be rated at least 100 watts. Voltage of each socket must be at least 110 volts.

3. Power for any equipment used for temporary heating and ventilation, and for start-up testing of any permanent electric-powered equipment prior to its connection to permanent electrical system.

C. Power for electric welding shall be provided via the temporary electrical system or engine driven power generator sets. Coordinate all connections for welding equipment with the Construction Manager.

D. Regulatory Agency Requirements:

1. The Contractor shall obtain any and all permits required by local authorities having jurisdiction, as applicable to any temporary power work performed.

2. The temporary electrical service shall comply with the National Electrical Code as currently adapted by local authorities, and all other applicable local codes and utility regulations.

E. Materials:

1. The materials may be new or used, but must be adequate in capacity for the purposes intended and must not create unsafe conditions or violate the requirements of applicable codes.

2. Use wire, cable, or busses of appropriate type, sized in accordance with the National Electrical Code for the applied loads. Use only UL-labeled wire and devices.

F. Equipment: Provide appropriate enclosures for the environment in which equipment is placed and used, in compliance with NEMA standards.

2.2 TEMPORARY LIGHTING

A. Provide task lighting of sufficient level for installation of the Work. If the Construction Manager does not deem the amount of task lighting to be adequate in a given area, the Contractor shall immediately increase the amount of task lighting at no additional cost.

Verbal direction for the Construction Manager shall be adequate in this situation.

B. Lighting at all interior areas receiving final finishes shall be at uniform levels and generated from the same type and color lamps.

C. Lighting for field offices, storage trailers, shops and outdoor work areas shall be provided by the Contractor as necessary.

D. Outdoor area lighting, in excess of any existing streetlight levels, of any site staging areas shallbe provided by the Contractor. This lighting shall be in the form of dusk-to-dawn mercury vapor fixtures. Lighting shall be of sufficient levels to permit security checks of the areas and provide for minimal access, but not sufficient by itself for work activity. If the Construction Manager does not deem the amount of area lighting to be adequate in a given area, the Contractor shall immediately increase the amount of area lighting at no additional cost.

2.3 TEMPORARY WATER

A. Water for Construction: Construction water may be provided from available existing water mains or by use of temporary tanks. When connecting to existing water service lines, perform all work according to the requirements of, and obtain any and all permits required by, local authorities having jurisdiction. Remove all temporary installations and equipment upon completion of construction.

B. Drinking Water: Provide drinking water adequate in quantity, quality and locations for all personnel at the project site. Furnish paper drinking cups and waste receptacles at each drinking water dispensing location.

2.4 TEMPORARY HEAT AND VENTILATION

A. The Contractor shall be responsible for providing heating and ventilation where required for satisfactory execution of the Work. Specifically, temporary heating and ventilation is required to:

1. facilitate progress of the Work
2. protect materials from dampness and the adverse effects of low ambient temperatures
3. prevent moisture condensation on surfaces
4. provide suitable temperature and humidity levels for installation and curing of materials

B. Temperature Requirements:

1. Generally, in semi-finished areas, a minimum of 50 degrees F shall be maintained 24 hours per day.
2. During placing, setting, and curing of cementitious materials, temperatures shall be maintained as required by the Technical Specifications and applicable standards.
3. Seven (7) days prior to, and during, the installation of interior finishes, the minimum temperature shall be 50 degrees F, 24 hours per day, unless noted otherwise in specific sections of the Technical Specifications.
4. After application of interior finishes and until the permanent HVAC system is operable,the minimum temperature shall be 50 degrees F, 24 hours per day, except as otherwise noted in the specific sections of the Technical Specifications and unless higher temperatures are required for specific activities; then the temperature shall be maintained as per the specific material manufacturer's recommendations.
5. Concrete Work: During the winter months (November through April), the

Contractor shall provide winter weather protection for all concrete work if required. The heating may be accomplished by use of approved types of portable heaters. Review applicable sections of the Technical Specifications for specific cold weather requirements for concrete placement and curing.

C. Use steam or hot water for temporary heating if and when available. If steam or hot water is not available, use gas from a piped distribution system if and when available. If none of the above sources are available, portable self-contained LP gas or fuel oil heaters may be used, equipped with individual space thermostatic controls.

D. The Contractor shall provide heat as required for any work area outside the building confines.

E. Safe Practices for Portable Heaters:

1. Locate heating units so as not to create a hazard to personnel, stored materials, of work of other contractors.
2. Avoid locating heaters in the vicinity of volatile, combustible, or explosive materials.
3. Ventilate areas occupied by personnel to avoid dangerous levels of exhaust gases and consumption of oxygen.
4. Use heating units bearing UL, FM or other approved label(s) appropriate for application.

F. Install all temporary heating and ventilation work in a workmanlike manner, and ensure all work complies with rules and recommendations of involved local utility company, if applicable, as well as OSHA requirements.

2.5 TEMPORARY FIRE PROTECTION

A. Specific administrative and procedural minimum actions are specified in this Paragraph, as extensions of provisions in the Owner-Contractor Agreement and other Contract Documents. These requirements have been included for special purposes as indicated. Nothing in this Paragraph is intended to limit types and amounts of fire protection required, and no omission from this Paragraph will be recognized as an indication by the County or Construction Manager that such temporary activity is not required for successful completion of the Work and compliance with requirements of Contract Documents.

B. Quality Assurance

1. NFPA Code: Comply with NFPA Code 241 "Building Construction and Demolition Operations."
2. The Contractor shall also comply with all applicable state, city and local fire codes.

C. The Contractor shall take all necessary precautions to guard against all possible fire hazards and to prevent damage to any construction Work, building materials, equipment, field offices, storage sheds and all other property, both public and private, in accordance with all fire protection and prevention laws and codes. The Contractor will assume full responsibility for damage caused by fire to construction and building, building materials, equipment and all property, both public and private.

D. The location of the nearest corporation or public fire alarm box and the number of the local fire department shall be conspicuously posted by the Contractor in its field office and in the construction area.

E. The Contractor's superintendent in charge of the Work shall review the Project at least once a week to make certain that it adheres to the conditions and requirements set forth herein.

F. No open fires shall be permitted. The Contractor and its subcontractors will not be allowed to start fires with gasoline, kerosene or other flammable materials. The bulk storage of all flammable liquids shall be located at least 75 feet from any inhabited trailer or office and from the yard storage of flammable building materials. All flammable liquids having a flash point of 100 degrees F or below, which must be brought into any building, shall be confined to the Underwriter's Laboratories' labeled safety cans. Drums containing flammable liquids are to be equipped with approved vent pumps and located per direction of the Construction Manager. Drums with spigots are prohibited for the storage of flammable liquids on the project site.

G. Welding, flame cutting or other operations involving the use of flame, arcs or sparking devices will not be allowed without adequate protection and shielding. All combustible and flammable material shall be removed from the immediate working area. If removal is impossible, all flammable or combustible material shall be protected with a fire blanket or suitable noncombustible shields to prevent spark, flames or hot metal from reaching the flammable or combustible materials. The Contractor shall provide the necessary personnel and fire fighting equipment to effectively control incipient fires resulting from welding, flame cutting or other operations involving the use of flame, arcs or sparking devices.

H. Only fire resistant tarpaulins with UL label and flame spread of 15 or less shall be used on this project.

I. Use of only Underwriters Laboratory approved heaters and/or stoves are permitted in field offices or storage sheds and they shall have fire resistive material underneath and at the sides near partitions and walls. Pipe sleeves and covering shall be used where stove pipe runs through wall or roof.

J. Smoking shall be prohibited around concentrations of combustibles and in particularly hazardous areas. Restricted areas must be plainly marked, with signs posted. No smoking rules must be strictly enforced.

K. Fire Extinguishers

1. The Contractor shall provide and maintain in working order during construction, an adequate number of fire extinguishers for use by all trades in each area of work. Two (2) fire extinguishers shall also be placed in the vicinity of Contractor's construction office.
2. In areas of flammable liquids, asphalt or electrical hazards, extinguishers of the 15 lb. carbon dioxide type or 20 lb. dry chemical type shall be provided.
3. The Contractor shall maintain and inspect all fire extinguishers periodically. Fire extinguishers must be mounted in plain view and sealed, so that operation of the fire extinguisher will break the seal. In the event a fire extinguisher is discharged or damaged, it shall be removed from service and be replaced with a charged unit.
4. The Contractor shall post warnings and quick instructions at each extinguisher location. The Contractor and all of its subcontractors shall instruct their personnel at the project site, at the time of their first arrival, on proper use of extinguishers and other available facilities at the project site.

2.6 TEMPORARY ENCLOSURES

A. Provide temporary enclosures reasonably required to ensure adequate workmanship and protection from the weather and unsatisfactory ambient conditions for the Work, including those enclosures inside which temporary heat is used.

B. Provide fire-retardant treated lumber and plywood where used for temporary enclosures.

2.7 TEMPORARY SANITARY FACILITIES

A. Provide and maintain sanitary toilet facilities for use of all personnel at the project site. Either piped (wet) toilet facilities or self-contained chemical toilet units may be used.

B. The number of sanitary facilities required shall be based on the total number of workers employed on the site and shall be in accordance with the provisions of the applicable code. Separate toilet facilities for men and women shall be provided when both sexes are working in any capacity on the project site.

C. All sanitary facilities shall be maintained by the Contractor in a safe, clean, and sanitary condition at all times.

2.8 TEMPORARY SIGNAGE

A. Project Sign: The Contractor shall construct, erect and maintain one (1) 4 foot by 8 foot project sign of 3/4 inch (minimum) exterior grade plywood, given two coats of paint and mounted securely on two 4 inch by 4 inch posts set 30 inches (minimum) into the ground. The sign shall be clearly lettered by one skilled in the sign trade with the facility name, address, County logo, names of County Commissioners, the County Manager and other County representatives, Contractor name, major subcontractors' names, and the jobsite telephone number. Locate the project sign as designated by the Construction Manager. Avoid a placement that may inhibit safe entry or exit from the site. Verify sign content with County, through the Construction Manager, prior to procuring and erecting the sign.

B. No other signs or advertising shall be displayed on the premises without the approval of the Construction Manager, other than the posting of required notices and cautionary signage by the Contractor, and signage on equipment and trailers to designate ownership.

2.9 TEMPORARY FIELD OFFICE AND TOOL STORAGE FACILITIES

A. The Contractor shall provide a trailer or other suitable temporary building for a field office, which shall contain office space required for the Contractor's operations, a conference room of suitable size for regular progress meetings, toilet facilities, and a separate spare office for a County, Architect, or Construction Manager representative to use when onsite. Ample space shall be provided for storage of all construction documentation. The trailer shall have telephone service for use by the Contractor and its subcontractors, and shall also have a working intrusion alarm system. One sign with the Contractor's name may be placed on the trailer.

B. The Contractor may provide other temporary trailers or buildings for storage and maintenance as required and as space permits.

C. All field office and storage structures shall be placed or constructed in accordance with the regulations of the local Fire Marshal having jurisdiction.

D. Field offices and sheds shall be of suitable design, maintenance, and appearance.

E. The Contractor shall provide power and heat to its field office and to storage sheds if storing climate-sensitive materials or equipment.

F. The Contractor shall adequately maintain the designated space designated for its field office and storage sheds, including the removal of weeds, debris, and trash.

G. Temporary field offices and sheds shall not be used for living quarters.

H. If the Construction Manager, for good reason, directs that any or all field offices or storage sheds on the site must be removed, the Contractor shall do so within ten (10) days of written notice of same. Structures not removed in a timely manner will be removed by the Construction Manager at the Contractor's expense.

2.10 FIRST AID STATION

A. The Contractor shall provide and maintain at least one unmanned first aid station for its personnel and subcontractors.

PART 3 - EXECUTION

3.1 TEMPORARY SYSTEMS INSTALLATION

A. Install all work with a neat and orderly appearance.

B. Make the work structurally sound throughout.

C. Maintain the system to give continuous service and to provide safe working conditions.

D. Modify temporary power and lighting installation as job progress requires.

E. Locate work such that interference with storage areas, traffic areas and other work is avoided.

F. Remove all temporary equipment and materials completely upon completion of construction.

G. Repair all damage caused by the installation and restore to satisfactory condition.

3.2 DEWATERING

A. Maintain the Project site and all Work free of water accumulation. Dewatering activities shall not infringe upon adjacent properties. Comply with all rules and regulations of authorities having jurisdiction and secure any and all permits required.

3.3 CONSTRUCTION TRAFFIC INGRESS TO AND EGRESS FROM SITE

A. Routes to Construction Site: The Contractor shall inform and insure compliance of its subcontractors and suppliers regarding the recommended traffic route(s) from major highways to the jobsite. For all traffic off of the jobsite, the Contractor shall coordinate with, and obtain any necessary permits from, appropriate authorities having jurisdiction.

B. Construction Site Access: All construction traffic, including deliveries of materials and equipment, shall enter and exit the site only by the routes prescribed on a site access and parking plan submitted by the Contractor and approved by the Construction Manager prior to start of construction (see Subparagraph 14.1 below).

C. Cleaning: The Contractor shall take all precautions necessary to prevent the tracking of mud and debris onto paved roads adjacent to the jobsite. The Contractor shall immediately clean any affected area if directed by the Construction Manager. The utilization of wheel

wash areas located at all site entrance/exit points is mandatory for all vehicles leaving the site if the tracking of mud or debris onto adjacent streets would result otherwise.

3.4 SITE ACCESS ROADS AND PARKING AREAS

A. Provide and maintain vehicular access to and within the site for use by all persons and equipment involved in construction of the Project.

B. New temporary access roads shall be constructed across designated easements from public thoroughfares only as allowable by local authority having jurisdiction.

C. Provide adequate access for emergency vehicles.

D. Provide and maintain temporary parking areas for use by construction personnel. Do not use any existing parking lots which may exist at existing facilities on the site unless specific authorization is given by the County. If parking needs exceed onsite capacity, provide offsite parking as necessary, as well as transportation to and from the site if distance dictates.

E. All traffic and parking areas shall be filled, compacted, and graded as necessary to provide suitable support for vehicular traffic under anticipated loadings.

F. Maintain all onsite traffic and parking areas free of excavated materials, construction equipment, construction materials, debris, snow and ice. Provide for surface drainage for all traffic and parking areas, and implement and maintain dewatering if and as necessary.

G. Keep fire hydrants, water control valves, and all other utilities requiring possible access free from obstructions.

H. Provide temporary directional signage as necessary.

I. Prior to the start of construction, submit to the Construction Manager for approval a complete site access/utilization and parking plan, incorporating the requirements described above.

3.5 STORAGE AREAS

A. The Contractor shall be responsible for all onsite and offsite storage of materials and equipment required for the Project. Onsite storage is subject to the review and approval of the Construction Manager.

B. All combustible or flammable materials shall be safely stored in a secured area in strict accordance with regulations, codes, and laws enforced by local, State, or Federal agencies, whatsoever is the most stringent.

C. If the Construction Manager, for good reason, directs that any or all materials stored on the site must be removed, the Contractor shall do so within ten (10) days of written notice of same. Stored materials not removed in a timely manner will be removed by the Construction Manager at the Contractor's expense.

3.6 SECURITY

A. Neither the County or any of its agents assumes any responsibility for loss, theft or damage to the Work, tools, equipment and/or construction. In the instance of any such loss, theft or damage, the Contractor shall be responsible to renew, restore or remedy

the Work, tools, equipment and construction in accordance with requirements of the Contract Documents without additional cost to the County.

1. The Contractor shall immediately advise the Construction Manager of any theft or damage which may delay the execution of the Work.
2. The Contractor shall furnish the Construction Manager with a copy of any theft report filed with appropriate law enforcement agencies.

B. Site parked equipment, operable machinery and hazardous parts of the new construction subject to mischief and accidental operation shall be inaccessible, locked or otherwise made inoperable when left unattended.

C. The Contractor shall utilize specific entrances for material deliveries, equipment deliveries, and worker access to the construction site as indicated on its site access/utilization plan and approved by the Construction Manager.

D. The County or Construction Manager, as the Project progresses, may establish additionalsecurity policies and procedures. The Contractor shall cooperate with the County and/or Construction Manager in implementing such additional procedures.

3.7 TRASH / DEBRIS DISPOSAL

A. The Contractor shall provide dumpsters sufficient to hold site waste from its operations and that of its subcontractors, and shall remove same from the jobsite on a regular basis.

B. Debris such as soil waste, concrete, steel, or other bulky items from excavation and/or demolition work not disposed of in dumpsters shall be removed and disposed off-site by appropriate means. Methods of debris removal and disposal shall be reviewed with the Construction Manager.

3.8 SITE CLEANING

A. The Contractor shall be responsible for the maintenance of a clean, neat and safe project site. The Construction Manager is hereby placing the Contractor on notice that failure to clean up on a weekly basis will immediately result in the Construction Manager bringing in labor to perform this task and deducting the cost of such measures from the Contract Sum. The Construction Manager shall be the sole authority which shall determine the amounts to be deducted from the Contractor's contract for this type of cleaning.

B. The Contractor shall assign at least five (5) percent of his own and his subcontractors' work forces to clean-up activities for at least four (4) hours per week, or as deemed necessary by the Construction Manager.

C. No exceptions to these rules will be allowed. Failure to immediately adhere to all of the Construction Manager's directions in this regard will result in the holdup of Contractor's progress payments until compliance with these rules are obtained.

3.9 MISCELLANEOUS CONSTRUCTION FACILITIES

A. The Contractor shall be responsible for providing and maintaining its own scaffolding and for conforming with all safety regulations related thereto.

B. The Construction Manager retains the right to inspect all erected scaffolding, and to request written verification from an inspection agency as to the soundness of erected scaffolding to perform its intended function. However, the Construction Manager

assumes no responsibility to do so, or of the results of such inspections.

C. Except as otherwise provided, the Contractor shall provide and maintain all necessary temporary stairs, ladders, ramps and runways to facilitate conveyance of men, materials, tools, and equipment for proper execution of the Work.

D. All protection and safety barricades, devices, covers, etc., shall be provided by the Contractor as it relates to the safe conduct of his work in accordance with OSHA requirements.

E. The Contractor shall maintain safe temporary access to the work as construction progresses.

F. All barriers and barricades shall comply with OSHA or other applicable safety requirements of the Project. All barriers and barricades shall be installed in a manner that will allow for the continued progress of the Work. Installation and removal of barriers, barricades and railings will be monitored by the Construction Manager.

G. If the Contractor or any subcontractor, who in the course of its work, creates a hazard, it is responsible for providing, at its own expense, all required protection, including all safety barriers, barricades and perimeter protection as necessary.

H. If any safety protection is required to be temporarily removed during the progress of the Work, it shall be reinstalled at the completion of the specific activity requiring such removal, and in a manner that provides a level of compliance equal to the initial installation.

J. The Contractor shall enclose all construction areas in such a manner so as to protect the public from injury and in accordance with authorities having jurisdiction

K. Provide any other types of construction facilities as may be reasonably required for performance of the Work and accommodation of personnel at the project site, including the County's and Construction Manager's personnel.

END OF SECTION 01 50 00

SECTION 01 57 19

ENVIRONMENTAL PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Provide all facilities, establish procedures, and conduct construction activities in a manner which will ensure compliance with the County's environmental requirements and other regulations controlling construction activities at the Project site.

1.2 DEFINITIONS

A. Sediment: Soil that has been eroded and transported by runoff water.

B. Degradable Debris: Debris which can undergo biodegradation or combustion, or which can be dissolved in or suspended by water.

C. Non-degradable Debris: Inorganic debris which will not disintegrate nor dissolve when exposed to moisture or water.

D. Chemicals: Petroleum or cementitious products, bituminous materials, salts, acids, solvents, alkalis, herbicides and pesticides.

E. Waste: Sewage, including domestic sanitary sewage, garbage and trash resulting from food and food packaging.

PART 2 - PRODUCTS

2.1 General: Products, devices and materials shall be approved by authorities having jurisdiction.

PART 3 - EXECUTION

3.1 ENVIRONMENTAL PROTECTION PROCEDURES

A. General
1. In the means and methods of construction, and in the coordination and control of the Work at the site, establish and enforce ecological preservation standards which avoid pollution of the atmosphere, waterways and vegetation.
2. Conform to laws, ordinances, restrictions, and rules of governmental bodies having enforcement power in regard to site preservation and erosion control.
3. Prevent droppings of petroleum products, cementitious waste and chemical substances on the ground or into storm, sanitary drains or waterways.
4. This Section may be supplemented by notes on drawings relative to environmental protection.

5. In performing sitework, provide and maintain protection during sitework for all existing lawns, trees, curbs, gutters, hydrants, light standards, drives, walks, street signs and buildings not noted for removal. Damaged items shall be repaired or replaced.
6. The Contractor shall designate one person, the Superintendent or other, to enforce strict discipline on activities related to generation of wastes, pollution of air/water, generation of noise and similar harmful or deleterious effects which might violate regulations or reasonably irritate persons at or in vicinity of the Project site.
7. Take special precautions when working on floors directly above or below any occupied floors and adjacent to circulation or vehicular circulation. Minimize noise, dust, or other environmental hazards to spaces.

B. Noise Control
1. Provide mufflers on combustion engine powered equipment to minimize noise.
2. Blasting is strictly prohibited without written permission from first the Construction Manager and then all applicable State and Local regulatory agencies.

C. Air Quality Control: Maintain acceptable air quality at all times. Acceptable air quality shall also be maintained in any existing, operating buildings or structures during construction operations that require physical connection to such buildings or structures so as to not interfere with any existing operations.

D. Water Control
1. All pumping, bailing, or well point equipment necessary to keep excavations free from the accumulation of water during the entire progress of the Work shall be the responsibility of the Contractor.
2. Keep the building or portions thereof free from water ingress due to construction operations at all times until Final Completion of the Work.
3. Provide all pumping necessary to keep site utility lines, sewers, manholes and meter pit excavations and mass excavation free from water.
4. Dispose of water in such a manner as will not endanger public health or cause damage or expense to public or private property. Abide by the requirements of all public authorities having jurisdiction.

E. Dust Control
1. Effectively confine dust, dirt and noise to the actual construction area(s) until Substantial Completion of the Work.
2. Clean up operations shall be by vacuuming, wet mopping, wet sweeping, or wet power brooming. In sandblasting operations, if any, confine the dust.
3. Use wet-cutting methods for cutting concrete, asphalt, and masonry. Do not shake out bags containing cement, lime, and other dust-causing substances.
4. Do not leave areas of disturbed earth unworked for long periods of time. As the earth is disturbed, continue the work to achieve temporary or permanent earth stabilization promptly.
5. Keep dust down at all times, including non-working days, weekends and holidays. Temporary methods consisting of water sprinkling or similar methods will be permitted to control dust. Use of water will not be permitted when it will result in, or create, hazardous or objectionable conditions such as ice, flooding and pollution.
6. Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs.

F. Snow and Ice Removal

1. Arrange for removal of snow and ice in and about the premises, as necessary to conform with local regulations on public sidewalks adjacent to the site, and as necessary on and about the site and the Work to permit safe access to continue or perform work. When performing work under exposed conditions, remove snow and ice for the protection and execution of the Work.

G. Vermin Control: Control vermin during the construction period. If vermin are encountered, provide extermination arrangements as necessary.

H. Disposal of Debris, Chemicals and Waste
1. Dispose of debris, chemicals, and waste off the site in compliance with Federal, State and local laws and regulations.
2. Collect and contain materials before disposal in an orderly fashion and by means which prevent contamination of air, water and soil.
3. Store chemicals in watertight containers.
4. Degradable debris, not contaminated by chemicals, e.g., leaves, tree limbs, twigs and logs, may be shredded on site and used as mulch. Exclude paper, cementitious waste, and material which could cause contamination of waterways. Non-degradable and degradable debris in excess of the above shall be disposed of off the site.
5. Do not bum materials on the site.

I. Clean-Up and Restoration of the Site
1. Maintain the site in good order through periodic pick up and clean-up of construction waste and wind-borne trash. Dispose of all waste and trash in tightly covered containers and schedule regular removal of trash and waste from the site.
2. Existing sitework damaged during construction shall be restored to good and acceptable condition.

J. Damage from Storms: Secure the site to avoid damage to the Work and stored materials, as well as damage to adjacent property.

END OF SECTION 01 57 19

SECTION 01 66 00

PRODUCT STORAGE AND HANDLING REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Deliver, handle and store materials and equipment in accordance with manufacturer's recommendations and by methods and means which will prevent damage, deterioration and loss, including theft. Provide delivery/installation coordination to ensure minimum holding or storage times for products recognized to be flammable, hazardous, easily damaged or sensitive to deterioration, theft and other sources of loss.

B. Prior to starting work, the Contractor shall meet with the Construction Manager to determine the use of available areas for site offices and storage.
   1. The Contractor shall confine his equipment, the storage of material and the operations of his workmen to limits indicated by the Contract Documents, laws, ordinances, permits or directions of the Construction Manager.
   2. Neat and orderly stockpiling of all materials shall be maintained.
   3. Materials which require significant amounts of storage space, as determined by the Construction Manager, shall be brought to the site in quantities no greater than required for two (2) weeks work.
   4. Delivery of materials shall be scheduled so as not to encumber the site with items which will not be required for a significant length of time.

C. If at any time it becomes necessary to move material or equipment which has been stored during construction, the Contractor, when directed by the Construction Manager, shall move them to another location without charge.

D. The Contractor shall not load or permit any part of the site or structures to be loaded with a weight that will endanger its safety.

E. Storage of materials outside the limits of construction, but on the County's property, is strictly prohibited without written permission from the County through the Construction Manager.

F. All costs relating to temporary storage and protection shall be borne by the Contractor or subcontractor requiring such storage and protection. The Contractor shall retain full responsibility for any form of damage or deterioration to stored materials and any form of damage or deterioration caused by materials to surrounding surfaces.

1.2 MATERIALS HANDLING PLAN

A. The Contractor shall develop and submit to the Construction Manager for approval, at least ten (10) days prior to the start of construction on the site, a comprehensive materials handling plan. This plan shall take into consideration the following:
   1. Control delivery of materials to maintain the construction schedule.
   2. Coordination with any separate contractors.
   3. The County's operation of adjacent facilities, if any.
   4. Provisions for both vertical and horizontal transportation and utilization of material and personnel hoists, if required.
   5. Limitations on space available for storage.
   6. Requirements for handling and installation of large equipment.

1.3 VERTICAL TRANSPORTATION

A. The Contractor shall be responsible for providing vertical transportation for materials, equipment, and personnel if and as required for multi-story buildings or significant heights. Cranes, hoists, conveyors, and other equipment used for this purpose shall be placed/installed and maintained according to applicable codes and regulations of authorities having jurisdiction.

B. Temporary hoists and permanent elevators used as construction lifts shall be provided with an operator at all times such equipment is in use.

C. The Contractor shall cooperate with the County, the Construction Manager and any separate contractors in the event that hoists or elevators are required for use by such entities during the course of the Project.

1.4 MATERIAL AND EQUIPMENT REMOVAL

A. Any required cranes, hoists, conveyors and other equipment mobilized and utilized by the Contractor shall be removed from the site within ten (10) days after completion of the Work.

B. Upon completion of the Work, or sooner if directed by the Construction Manager, the Contractor shall remove his temporary structures and sheds and place the areas in a clean and orderly condition.

C. No materials or equipment shall be removed from the site without the permission of the Construction Manager.

1.5 PASSAGE OF MATERIALS AND EQUIPMENT

A. Establish passage clearances required to deliver and install materials and equipment.

B. In case of insufficient clearance for passage of materials and equipment, deliver and protect such equipment before confining construction is installed.

C. If existing structures, equipment and systems must be removed or altered to provide access for new materials and equipment, engage those skilled in the respective trade to restore structures, equipment and systems to their original condition at no additional cost. Do not alter structure, equipment or systems without written approval of the Construction Manager.

D. In lieu of altering structures to provide passage of materials and equipment, provide materials and equipment that can be disassembled, brought into the building, and reassembled.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 21 00

SECTION 01 71 23

CONSTRUCTION LAYOUT

PART 1 - GENERAL

1.1 PROJECT LAYOUT REQUIREMENTS

A. The Contractor shall be responsible to accurately establish and maintain all principal lines, grades, and levels for the Work.

B. Establish a minimum of two permanent bench marks on the site, referenced to data established by survey control points.

C. Establish lines and levels, and locate and lay out by instrumentation and similar appropriate means, the following:
   1. Site improvements, including, but not limited to, pavement; stakes for grading, fill and topsoil placement; and utility slopes and invert elevations
   2. Grid and axes for structures
   3. Building foundations, column locations, and floor elevations
   4. Controlling lines and levels required for mechanical, electrical, and other trades

D. Protect and preserve the established control points, monuments, stakes, bench marks, or other datum points. The Contractor shall not make any change in location without the written approval of the Construction Manager. Any control points lost or displaced through the neglect of the Contractor shall be replaced at no additional cost to the County.

E. Verify the overall and critical dimensions and elevations for the Work prior to commencement of construction. Submit a written statement to the Construction Manager of the acceptance of the location of all existing conditions and previously completed construction, if any, as it relates to the Work of this Contract.

F. Verify all drawing dimensions and existing measurements as the Work progresses at the site. No extra charges shall be allowed for differences between actual field measurements and any dimensions shown on the Contract Documents. Do not provide filler pieces or closures without approval from the Construction Manager.

G. Verify and maintain layouts during construction operations, using the same methods as were used to establish original layouts.

H. All Work, and in particular piping, ducts, conduit, and similar items, shall be neatly and carefully laid out to provide the most useful space utilization and the most orderly appearance. Except as otherwise indicated or directed, piping and similar work shall be installed as close to ceilings and walls as conditions reasonably permit. These items shall be located to prevent interference with other work and with the use of the spaces in the manner required by the functions of the space and the County. Valves shall be located in inconspicuous but accessible locations. Before proceeding with any work exposed to view, the Contractor shall carefully plan the layout and review any questionable installations with the Construction Manager.

I. Maintain a complete and accurate log of control and survey work as it progresses. Indicate all control point locations, with horizontal and vertical data, on the record drawings submitted at Substantial Completion.

1.2 QUALITY ASSURANCE / QUALITY CONTROL

A. The Contractor shall employ qualified personnel to stake out/locate the reference points as needed to properly locate the Work of the Contractor and all subcontractors. Land surveyors and engineers utilized in layout work shall be registered professionals, licensed in the State of Georgia, and acceptable to the Construction Manager.

B. Provide certification by a registered land surveyor or engineer that elevations and locations of improvements are in conformance with the requirements of the Contract Documents.

C. The Contractor shall be responsible for transferring all required measurements from the controlpoints to the required locations throughout the Project. If, at any time, the Construction
Manager questions the transference of such dimensions, the Contractor shall, at no additionalcost to the County, verify the transference of questionable dimensions to the Construction Manager.

1.3 COORDINATION

A. Upon Notice to Proceed, and again prior to commencement of construction, examine the site and the conditions under which the Work is to be installed, and notify the Construction Manager in writing of any discrepancies or conditions detrimental to the proper performance of the Work. The Contractor is not to proceed until any such discrepancies or detrimental conditions are corrected.

B. Obtain accurate field dimensions in ample time to permit fabrication of items requiring same, and allow for delivery and installation in time to maintain the project schedule. The Contractor and all subcontractors shall cooperate and coordinate in completing the work phases to accommodate the schedule for obtaining dimensions and to prevent fabrication delay. In the event it is impractical to have work in place to permit field dimensions to be taken, the Contractor shall guarantee necessary dimensions to fabricators and be responsible to ensure those dimensions will be accurate.

C. The Contractor shall furnish approved copies of all relevant information (shop drawings, diagrams, templates, technical data, etc.) to the County or to separate contractors, as required for coordination with any work of the Project by others.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 21 00

SECTION 01 73 29

CUTTING, CORING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

A. "Cutting, Coring and Patching" is hereby defined to include, but not necessarily be limited to, removal, cutting (including excavation), coring, fitting and patching of nominally completed and previously existing Work, as shown or required in order to accommodate the coordination of Work, installation of new Work, to uncover other Work for access or inspection, remove and replace defective Work or Work not conforming to the Contract Documents, or to obtain samples for testing or for similar purposes.

B. For existing buildings, the sizes, dimensions, and elevations shown on the drawings represent measurements which should be regarded as typical dimensions; actual dimensions may and will vary due to prevailing building practices at the time of construction, and building settlement over time.

C. The requirements of this section apply generally to all aspects of the Work, including mechanical, electrical and special systems work, unless otherwise indicated. The Technical Specifications may include additional or more specific requirements or limitations applicable to individual units of work.

D. The Contractor shall note that it is its responsibility to coordinate the locations and sizes and to cut or core all openings and penetrations for all trades involved in the Work of this Contract. Any openings and penetrations which may be shown on drawings provided by the County are intended only to assist the Contractor in coordinating the major openings and penetrations and are not representative of all openings which will be required to complete the work.

1.2 QUALITY ASSURANCE

A. The Contractor shall not cut, core and patch structural work in a manner resulting in a reduction of load-carrying capacity or load/deflection ratio. Prior to cutting, coring and patching structural work, obtain Architect's approval to proceed with cutting and patching as proposed in a written submittal by the Contractor.

B. The Contractor's submittal requesting consent to proceed with cutting, coring and patching structural work must include:
   1. Identification of the Project
   2. Description of the affected Work
   3. Necessity for cutting or coring
   4. Affects on other Work, and on the structural integrity of the Work
   5. Description of the proposed Work, which designates:
      a. Scope of cutting, coring and patching
      b. Subcontractor who will execute the work
      c. Products proposed to be used
      d. Extent of refinishing required

6. Alternates to cutting, coring and patching
7. Designation of the responsibility for the costs associated with the cutting, coring and patching

C. Prior to performing any cutting, coring and patching as extra work, the Contractor shall have submitted a written cost proposal and received written direction from the Construction Manager.

D. The Contractor shall be responsible for providing, locating, and installing all embeds necessary for the completion of the Work, so as to avoid unnecessary cutting and patching.

1.3 OPERATIONAL AND SAFETY LIMITATIONS

A. The Contractor shall not cut and patch operational elements and safety-related components in a manner resulting in a reduction of capacities to perform in the manner intended including energy performances, or resulting in decreased operational life, increased maintenance, or decreased safety.

B. The Contractor shall not cut, core drill or otherwise penetrate any post-tensioned cast-in-place concrete elements.

1.4 VISUAL REQUIREMENTS

A. The Contractor shall not cut and patch work which is exposed on the exterior, or exposed on the interior in occupied spaces of the building, in a manner resulting in a reduction of visual qualities, or resulting in substantial evidence of cut and patch work, as judged solely by the Architect. The Contractor shall remove and replace work judged by the Architect to be cut and patched in a visually unsatisfactory manner.

PART 2 – PRODUCTS

2.1 MATERIALS

A. The Contractor shall provide materials for cutting and patching which will result in equal or better work than work being cut and patched, in terms of performance characteristics and including visual effect where applicable. The Contractor shall comply with requirements, and use materials identical with original materials where feasible and where recognized that satisfactory results can be produced thereby.

PART 3 – EXECUTION

3.1 PREPARATION

A. Inspection of Concealed Conditions (for construction existing prior to this Contract, if applicable) - Prior to beginning installation or preparation of shop drawings for each unit of work involving exposure of existing concealed construction, the Contractor shall remove the minimum of finishes, substrates and other existing construction as necessary to expose existing conditions where work is required behind existing surfaces. The Contractor shall verify that work can proceed in accordance with the requirements of the Contract Documents. The Contractor shall prepare detailed drawings of any existing

conditions which differ substantially from conditions indicated or implied by the Contract Documents and the existing construction visible prior to exposure of concealed conditions. Submit drawings and a cost proposal to the Construction Manager for transmittal to the Architect a minimum of fourteen (14) calendar days prior to the scheduled installation of work in that area or the preparation of any required submittals relating to the area in question.

B. Inspection of Concealed Conditions (for Work installed under this Contract) - In the event work is required behind existing surfaces previously installed under this Contract, the Contractor shall remove the minimum of finishes, substrates and other existing construction as necessary to expose existing conditions where work is required behind existing surfaces. Inspect and assess all conditions affecting the continued performance of the Work, and immediately report any circumstances which could have an adverse effect on the performance of the Work to the Construction Manager.

C. Temporary Support - The Contractor shall provide shoring and protection and/or temporary support for work to be cut, to prevent failure. Do not endanger other work.

D. Protection - The Contractor shall provide protection of other work during cutting and patching, to prevent damage and provide protection of the Work from adverse weather conditions. The Contractor shall not cut or alter work of another contractor without written consent of the Construction Manager.

3.2 CUTTING AND PATCHING

A. The Contractor shall employ skilled tradesmen to perform all cutting, coring and patching and who have experience working with the materials involved. Except as otherwise indicated or approved by the Construction Manager or the Architect, the Contractor shall proceed with cutting and patching at earliest feasible time in each instance, and complete work without delay.

B. The Contractor shall cut work by methods least likely to damage work to be retained and work adjoining. Employ the original installing subcontractor to perform cutting and patching for weather-exposed or moisture-resistant elements, and for exterior or interior surfaces exposed to view.

C. In general, where physical cutting action is required, the Contractor shall cut work with sawing and grinding tools, not with hammering and chopping tools. Make cuttings to neat, straight lines and only to the size required to accommodate the construction to be installed. Core drill openings through finished concrete work.

D. The Contractor shall patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the work. Where feasible, inspect and test patched areas to demonstrate integrity of work.

E. The Contractor shall restore exposed finishes of patched areas and extend finish restoration onto retained work adjoining, in a manner which will eliminate evidence of patching and refinishing. Where a patch occurs in a smooth painted surface, the Contractor shall extend the final paint coat over entire unbroken surface containing patch, after patched area has received prime and base coats.

F. Wherever existing concrete floors are required to be patched or leveled, and where slabs are chopped out to provide for installation of new concrete floors, and where existing concrete is to be extended, the Contractor shall apply concrete bonding agent before placing new concrete. Apply such bonding agent in accordance with the manufacturer's specifications.

END OF SECTION 01 21 00

SECTION 01 74 23

FINAL CLEANING

PART I - GENERAL

1.1 RELATED WORK SPECIFIED ELSEWHERE

A. Periodic clean-up during construction - See General Requirements Section 01 50 00 for additional details of these requirements.

B. Refer to appropriate sections of the Technical Specifications for special cleaning instructions for specific work. Lacking such specific instructions, provide final cleaning on all delivered materials and equipment as specified herein.

PART 2 – PRODUCTS

2.1 MATERIALS

A. The Contractor is to use only cleaning materials as recommended by manufacturer of surface to be cleaned.

B. The Contractor is to use cleaning materials only on surfaces as recommended by the manufacturer of the cleaning material.

PART 3 - EXECUTION

3.1 FINAL CLEANING WORK

A. At the completion of the Work, the Contractor will remove all trash and debris and clean all surfaces associated with his work, and leave the project ready for occupancy by the County.

B. Experienced workmen or professional cleaners only are to be employed for final cleaning.

C. Paved surfaces are to be broom clean. Other porous surfaces are to be raked clean. All stone and non-porous surfaces shall be wiped clean.

D. All surfaces shall have all stains removed.

E. Electrical work, including lighting fixtures, is to be thoroughly cleaned.

F. Prior to acceptance of any area of the project by the County, the Contractor is to notify the Construction Manager as each area becomes ready for inspection. The final clean-up will be inspected by the Construction Manager with the Architect and the County as required.

G. The Construction Manager will notify the Contractor in writing if any clean-up is unacceptable. If the Contractor fails to comply after receiving written notice from the Construction Manager, the Construction Manager will perform whatever corrective action is necessary, with the resultant costs to be borne by the Contractor.

H. The Contractor will maintain cleaning services until the Project or portion thereof is accepted by County.

END OF SECTION 01 74 23

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

A. Comply with requirements for administrative procedures stated in this and other sections of the Project Manual in closing out the Work. Closeout procedures are summarized in this Section.

B. Contract requirements shall be met when construction activities have successfully produced, in order, completion of these three closeout stages:
   1. Substantial Completion
   2. Final Completion
   3. Final Payment

C. The Contractor shall provide all written notices and supporting documentation as described in Paragraphs 2 and 3 below when requesting Substantial Completion and Final Completion, respectively. Partial submittals of the required documents shall not represent a valid request, and the County, Architect, and Construction Manager shall not be liable for any delays in the Substantial and Final Completion dates arising there from.

1.2 SUBSTANTIAL COMPLETION

A. Reference the *Owner-Contractor Agreement,* Article 9, regarding Substantial Completion.

B. Prerequisite - the commissioning, described in Division 17 must be complete, except for functional testing and controls training, prior to Substantial Completion, unless approved in writing by the Owner's Project Manager.

C. When the Work is substantially complete, the Contractor shall submit to the Construction Manager:
   1. a written notice that the Work, or designated portion thereof, is substantially complete.
   2. an original Certificate of Occupancy for the Project.
   3. a list of items to be completed or corrected (hereinafter referred to as a "Punch List").
   4. a request for a Substantial Completion inspection on a date acceptable to the Architect and the Construction Manager.
   5. Project record documents, operation & maintenance manuals, warranties, and certificates for review and approval.

D. Within a reasonable time after receipt of such notice, the Architect, the Construction Manager, the Contractor, and the County will make a joint inspection to determine the status of completion. County representatives for this inspection shall include, but not be limited to, the user department(s) and the Department of Personnel, Workers Compensation & Office Services Division. The Punch List submitted by the Contractor will be reviewed in detail during the inspection, with items added or deleted to indicate Work to be corrected or completed.

E. After completion of the joint inspection described in Paragraph 1.2-C above, the Construction Manager will consolidate all Punch List comments and transmit them to the County Department of Public Buildings & Grounds (DPB&G). Within a reasonable amount of time after receipt of such consolidated Punch List, DPB&G shall conduct its own inspection, to include, but not be limited to, the installation and operation of all mechanical, electrical, plumbing, and other building systems. The consolidated Punch List will be reviewed in detail during the inspection, with items added or deleted to indicate Work to be corrected or completed.

F. The County, the Architect, and/or the Construction Manager reserve the right to issue a revised Punch List based on the inspections described in 1.2-C and 1.2-D above. The Construction Manager will reproduce and distribute copies of any revised Punch List to the Contractor and see that the items requiring correction or completion are given prompt attention by the Contractor. Depending on the number and type of items on the Punch List, the Construction Manager may withhold the issuance of the Certificate of Substantial Completion until corrections required by said Punch List are made or all parties are satisfied that they will be made.

G. Should the Architect and/or the Construction Manager determine that the Work is not substantially complete:
   1. The Construction Manager will promptly notify the Contractor in writing, on behalf of the Architect, giving the reasons therefore.
   2. The Contractor shall remedy the deficiencies in the Work, and then send a second written notice of Substantial Completion to the Construction Manager.

H. Paragraphs 1.2-B through 1.2-D will be repeated.

I. Should it become necessary to perform more than one (1) reinspection due to the inaccurate claims of the status of completion made by the Contractor, the Construction Manager may deduct the costs of such reinspections from the final payment, including but not limited to costs incurred by the Construction Manager and the Architect, and costs incurred by the Owner for payment of compensation to the Construction Manager and the Architect, for services performed for the reinspection(s). Also refer to General Requirements Section 01 45 00, *Quality Control.*

J. When the Architect and the Construction Manager concur that the Work is substantially complete, the Construction Manager will:
   1. Prepare a Certificate of Substantial Completion accompanied by the Contractor's Punch List of items to be completed or corrected, as verified and amended by the Architect, the Construction Manager, and the County.
      a. Contract responsibilities are not altered by inclusion or omission of required Work for the Punch List.
      b. The Construction Manager will coordinate with both the County and the Contractor to establish each parties' responsibilities with respect to security, maintenance, heat, utilities, damage to the Work, and insurance, all of which shall be clearly delineated on the Certificate of Substantial Completion.
   2. Sign the Certificate of Substantial Completion and submit it to the County, the Architect, and the Contractor for their written acceptance of the responsibilities assigned to them in the Certificate.

1.3 FINAL COMPLETION

A. Reference the *Owner-Contractor Agreement,* Article 9, regarding Final Completion.

B. Prerequisites -
   1. TAB work and the commissioning of Division 17 must be complete prior to Final Completion, unless approved in writing by the Owner's Project Manager. Exceptions to this are the planned control system training performed after occupancy and any required seasonal or approved deferred testing. This includes for all systems, but is not limited to:
      a. Completed and signed start-up and prefunctional checklist documentation
      b. Requested trend log data
      c. Submission of final approved TAB report
      d. Completion of all functional testing
      e. Required training of Owner personnel completed and approved
      f. Submission of the approved O&M manuals
      g. All identified deficiencies have been corrected or are approved by the Owner to be exceptions from this milestone
   2. The Owner's Project Manager will determine the date of Final Completion after reviewing the Commissioning Agent's recommendation.
   3. Commissioning activities are non-compensable and cannot be a cause for delay claims.

C. To attain Final Completion, the Contractor shall complete the activities pertaining to Substantial Completion Certificate and complete work on all Punch List items. Only then shall a written request to the Construction Manager for final inspection be submitted.

D. When the Work is complete, the Contractor shall submit to the Construction Manager written certification that:
   1. the Contract Documents have been complied with in their entirety.
   2. the Work has been inspected for compliance with Contract Documents.
   3. the Work has been completed in accordance with Contract Documents.
   4. the Work is completed and ready for final inspection.

E. The Construction Manager, Architect, Contractor and County will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.

F. Should the Architect and/or Construction Manager determine that the Work is incomplete or defective:
   1. The Construction Manager will promptly notify the Contractor in writing, listing the incomplete or defective Work.
   2. The Contractor shall take immediate steps to remedy the stated deficiencies, and send a second written certification to the Construction Manager that the Work is complete.

G. Paragraphs 1.3-B through 1.3-D will be repeated.

H. Should it become necessary to perform more than one (1) reinspection due to failure of the Work to comply with the claims of status of completion made by the Contractor, the Construction Manager may deduct the costs of such reinspections from the final payment, including but not limited to costs incurred by the Construction Manager and the Architect, and costs incurred by the Owner for payment of compensation to the Construction Manager and the Architect, for services performed for the reinspection(s). Also refer to General Requirements Section 01 45 00, *Quality Control.*

I. When the Architect and the Construction Manager find that the Work is acceptable under the Contract Documents, the Contractor will be requested to make a final closeout submittal.

1.4 CONTRACTOR'S CLOSEOUT SUBMITTALS

A. The Contractor shall provide to the Construction Manager the following documents in the quantity of one original and one copy unless otherwise noted. Note that with the exception of Subparagraphs A.7, A.8, A. 10, and A. 11 below, submittal for approval shall have already been made prior to Substantial Completion. Submittal under this Paragraph would be for a final submittal should revisions or additional copies be required of previously submitted documentation.

1. Evidence of Compliance with all requirements of governing authorities:
   a. Certificate(s) of Occupancy
   b. Certificates of Inspection, for Mechanical, Electrical, Plumbing, Fire Protection, and others as may be required.
2. Project Record Documents: Refer to Section 01 78 39 of the General Requirements.
3. Operation & Maintenance Manuals: Refer to Section 01 78 23 of the General Requirements.
4. Subcontractor List: A complete listing of all subcontractors and their suppliers, indicating business addresses, telephone numbers, contact names, and items supplied by each.
5. Manufacturer List: A listing of manufacturers of major materials, equipment and systems installed in the Work, and local contact addresses and phone numbers.
6. Warranties: Refer to Section 01 78 36 of the General Requirements, and individual sections of the Technical Specifications.
7. Payment of Debts and Claims and Consent of Surety: The Contractor shall submit adequate evidence that the Contractor has paid all obligations to date arising out of the Contract using AIA Document G706. Contractor shall also submit AIA Document G707, indicating written consent of its Surety to final payment.
8. Release of Claims and Liens: The Contractor and each subcontractor shall also submit AIA Document G706A, indicating that the releases for waivers submitted are complete to the best of its knowledge and information.
9. Final Approvals and Certificates:
   a. Plans and Certificates approved by the Fulton County Development Services Department which were maintained at the jobsite shall be amended to show construction changes and resubmitted as required by law.
   b. Contractors requiring filing shall complete all Fulton County inspections and permits records before Application for Final Payment. Submit all approvals and certificates required by the Specifications, Drawings and applicable codes and regulations of all relevant departments or agencies of Fulton County, State of Georgia, and local authority having jurisdiction.
10. Shop Drawings, Manufacturer's Literature and Test Data (one copy only): The Contractor shall submit through the Construction Manager to the County, before final acceptance, all reviewed shop drawings (with all corrections noted), plus sets of all approved catalog cuts, equipment manuals, etc. All materials shall be indexed by Specification section. This submittal shall include a list of each room and its paint manufacturers and/or wall covering number for the County's use.
11. Keys and Maintenance Materials: All keys, maintenance kits or stock, replacement parts or materials, spare construction materials, and equipment required under the Contract Documents shall be delivered or made available to the County. Also refer to Section 0178 43 of the General Requirements.
12. No partial submittals of the above items are to be made to the Construction Manager. All items of each category are to be collected by the Contractor and delivered at one time to the Construction Manager, together with a letter of transmittal listing all items. Where items are to be delivered to the County's representative, the Contractor shall include a copy of the transmittal letter listing all enclosures, signed by the County's representative acknowledging receipt.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 77 00

SECTION 01 78 23

OPERATING AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

A. Refer to individual sections of the Technical Specifications for specific requirements for instructions, maintenance manuals, and operating data, to be submitted by the Contractor in order to provide the County with all necessary documentation to adequately maintain and service materials, systems and equipment for the Project.

B. The Contractor shall compile all such specified instructions, maintenance manuals and operating data as specified under the appropriate Technical Specification sections, and submit as described below in comprehensive sets of Operation and Maintenance Manuals.

C. All complete Operation and Maintenance Manuals shall be submitted prior to the Contractor's request to receive a Certificate of Substantial Completion.

1.2 SUBMITTAL REQUIREMENTS

A. Develop a sequential program for the development of the Operation and Maintenance Manuals. This program shall provide a step-by-step review of the development of the manuals. The following is an abbreviation of the required sequence of development of the manuals.
   1. Submittal of the Table of Contents
   2. Submittal of draft sections for County's, Architect's and Construction Manager's review
   3. Submittal of list of proposed attachments and appendices
   4. Submittal of initial draft of complete manual
   5. Submittal of final copies of all manuals with approved contents

B. After all approvals have been obtained, submit to the Construction Manager four (4) sets of bound, clear and complete instructions for maintenance of materials, finishes, machinery and other items to ensure proper care and reasonable life expectancy thereof.

C. Print or type, in orderly sequence, the required information for each item:
   1. Include data for all finishes, whether painted, coated, fabric, polished and satin finish metals, glass, natural finishes on wood, natural stone, manufactured stone and various masonry finishes to the extent that such finishes occur on the project.

D. Bind each set of data in a manageable number of 8 'h" by 1 1 " sturdy three-ring binders, indexed and clearly labeled by Specification Section and item description. Each set shall be indexed and tabbed for the completed manual regardless of its completeness at the time of its submittal.

E. Additional data will be added behind its tabbed location as received by the Construction Manager. Include an index for the completed set in each binder. Mark identification on both front and spine of each binder.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 78 23

SECTION 01 78 36

WARRANTIES

PART 1 - GENERAL

1.1 REQUIREMENTS

A. Unless additional maintenance or performance warranties are required, all the Work shall be warranted by the Contractor for one year after the date of Substantial Completion of the Contract.

B. Project warranties submitted by the Contractor do not reduce the County's warranty rights provided under State laws and regulations.

C. Where products, materials, equipment, or systems are not properly performing or operating, the warranty shall not be considered in effect until corrective work is provided and the items are properly performing or operating.

D. Warranties shall not include replaceable items such as light bulbs or cleaning materials, or damage by wear, vandalism or unusual climatic phenomenon, except water and air leaks caused by such phenomena.

E. Warranties shall be signed by representatives that are expressly authorized to bind the Contractor to the warranties' terms and conditions. This requirement shall also apply to signatures on warranties of subcontractors, installers, manufacturers, and other entities engaged by the Contractor which are required by the Contract Documents.

1.2 DEFINITIONS

A. Warranties on the Work are in several categories, including those of the Owner-Contractor Agreement, and including (but not necessarily limited to) the following specific categories related to individual units of Work specified in Division 2 through 17 of the Technical Specifications:

1. Special Project Warranty (Guarantee): A warranty specifically written and signed by the Contractor for a defined portion of the Work; and, where required, countersigned by a subcontractor, installer, manufacturer and/or other entity engaged by the Contractor.
2. Specified Product Warranty: A warranty which is required by the Contract Documents, to be provided for a manufactured product incorporated into the Work; regardless of whether the manufacturer has published a similar warranty without regard for specific incorporation of product into the Work, or has written and executed a special project warranty as a direct result of Contract Document requirements.
   The Contractor shall issue four (4) copies of a special product warranty if required by the Technical Specifications. Examples of items which will require a special product warranty include roofing, waterproofing, certain insulation, caulking, wood and automatic doors, carpet and certain equipment.
3. Coincidental Product Warranty: A warranty which is not specifically required by Contract Documents (other than as specified in this Section), but which is available on a product incorporated into the Work, by virtue of the fact that manufacturer of product has published a warranty in connection with purchases and uses of product without regard for specific applications except as otherwise limited by terms of warranty.

B. Refer to the individual sections of the Technical Specifications for the determination of portions of the Work which are required to be specifically or individually warranted, and for the specific requirements and terms of those warranties (or guarantees).

1.3 SCOPE OF WARRANTIES

A. Scope: The Contractor shall submit to the Construction Manager for transmittal to the Architect, upon completion of all the Work under the Contract, its written warranty made out to the County and in a form satisfactory to the Architect and the County, warranting all of the Work under the Contract to be free from faulty materials and improper workmanship, and warranting the Work against injury in the proper and usual use thereof. Under the warranty, the Contractor shall replace Work as may be found by the County to be improper or imperfect and to make good all damage caused to other work or materials by the imperfection or removal and replacement of the imperfect Work.

B. Time Limit / Individual Warranties: A specific warranty of the Contractor may cover a longer period than that stated above where so stipulated in the Contract Documents. Warranties under service policies and warranties for individual pieces of equipment shall be assigned and delivered to County prior to the date of Final Acceptance, but said individual warranties shall in no way modify or shorten the one year overall warranty to be provided by the Contractor.

C. Extended Warranties: Certain extended warranties by the Contractor or subcontractors, or maintenance contracts which are longer than one year's duration, may be required by the Contract Documents. At the completion of the Work, all such warranties or maintenance contracts covering materials, workmanship, maintenance, or other items as specified, shall be forwarded in duplicate to the Architect through the Construction Manager, together with a letter addressed to the County giving a summary of each said warranty as follows:
   1. Character of Work covered by warranty
   2. Name of subcontractor furnishing warranty
   3. Period of warranty
   4. Conditions of warranty

D. General Limitations: It is recognized that specific warranties are intended primarily to protect County against failure of the Work to perform as required, and against deficient, defective and faulty materials and workmanship, regardless of sources. Except as otherwise indicated, specific warranties do not cover failures in the Work which result from:
   1. unusual and abnormal phenomena of the elements,
   2. the County's misuse, maltreatment or improper maintenance of the Work,
   3. vandalism after the time of Substantial Completion, or
   4. insurrection or acts of aggression, including war.

E. Cost: Contractor warranties shall provide for the correction of work performed without additional charge. Any additional expense or damage resulting from imperfect work or the removal or replacement of imperfect work shall also be covered by said Contractor warranties.

1.4 CONTRACTOR OBLIGATIONS

A. Related Damages and Losses: The Contractor shall be responsible for the correction of warranted Work which has failed. The Contractor shall remove and replace other Work which has been damaged as a result of such failure, or which must be removed and replaced to provide access for correction of warranted Work.
   1. Consequential Damages: Except as otherwise indicated or required by governing regulations, special project warranties and product warranties are not extended to

cover damage to building contents (other than Work of the Contractor) which occurs as a result of failure of warranted Work.

B. Reinstatement of Warranty Period: Except as otherwise indicated, when Work covered by a special project warranty or product warranty has failed and has been corrected by replacement or restoration, reinstate warranty by written endorsement for a period of time equal to original warranty period of time, starting on date of acceptance of replaced or restored Work.

C. Replacement Cost, Obligations: Except as otherwise indicated, costs of replacing or restoring failing warranted units or products is the Contractor's obligation, without regard for whether the County has already benefited from use through a portion of anticipated useful service lives.

D. Contractor's Procurement Obligations: Do not purchase, subcontract for, or allow others to purchase or subcontract for materials or units of work for the Project where a special project warranty, specified product warranty, certification or similar commitment is required, until it has been determined that entities required to countersign such commitments are willing to do so.

E. Rejection of Warranties: The County reserves the right, at the time of Substantial Completion or thereafter, to reject coincidental product warranties submitted by the Contractor, which in the opinion of the County tend to detract from or confuse interpretation of the requirements of the Contract Documents.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TRANSFER OF WARRANTIES TO OWNER

A. Format: The warranties shall cover all the Work done under this Contract. All Contractor warranties shall bear the endorsement of the Construction Manager in writing, as per the attached format on the following page:

B. FORMAT FOR THE TRANSFER OF WARRANTIES TO OWNER

TO: Fulton County Board of Commissioners

c/o: Fulton County Construction Manager

Re: *(Work Covered in Warranty)* _____

Project: _____

Name of Contractor: _____

Address of Contractor: _____

_____

_____

Dear County's Representative,

The undersigned warrants to the County that he will be responsible for all faulty or defective materials, equipment and workmanship, in the Work or portion thereof as referenced above, and that he will remedy any defects due thereto and pay for all damage to other work resulting thereof which shall appear within a period of ( ) year(s) from the date of Substantial Completion, as defined in the Contract Documents.

(Add additional conditions of warranty as noted in various technical sections of the Specifications.)

During the warranty period, upon written notice from County, the undersigned shall proceed with due diligence at the undersigned's sole expense to remove and replace properly any defective materials and equipment or perform any labor necessary to correct any such defect in the above. In case that the undersigned fails to remedy such defects, then the County may furnish such materials and equipment or labor as are necessary to correct the work, and the undersigned agrees to reimburse the County for any expense therefore promptly and fully.

Signed:_____** Date:_____

Type/Print Name:_____

Witness:_____

Construction Manager Endorsement of the above-noted warranty:

Signed: Date: ** *Signatures must be notarized.*

END OF SECTION 01 78 36

SECTION 01 78 39

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 GENERAL

A. Definition: Record Documents are defined to include those documents or copies relating directly to performance of the Work. Record Documents show changes in Work in relation to way in which Work was shown and specified by the original Contract Documents, and show additional information of value to County's records, but not indicated by the original Contract Documents. Record Documents include marked-up copies of Construction Drawings, Specifications, Field Orders and Change Orders, reviewed copies of Shop Drawings, Product Data and Samples, a final product list, test records, field records for variable and concealed conditions such as excavations and foundations, and miscellaneous record information on Work which is otherwise recorded only schematically or not at all. Certain portions of the Contract Documents may indicate specific Record Document requirements which extend the requirements of this Section.

B. Throughout progress of the Work, maintain and continually update an accurate record of changes in the Contract Documents.

C. Provide access to all Record Documents for the County's, Architect's, and Construction Manager's reference and review throughout the progress of the Work.

D. As a condition of Substantial Completion of the Work, the Contractor shall deliver Record Documents to the Construction Manager as provided below.

1.2 MAINTENANCE OF DOCUMENTS

A. One copy of current Record Documents shall be maintained at the Contractor's jobsite office at all times.

B. Delegate responsibility for maintenance of Record Documents to one person.

C. Provide files and racks for suitable storage of documents, and file all documents and samples in a neat and orderly manner.

D. Protect Record Documents from loss in a secure location. Maintain documents in a clean, dry, legible condition, and in good order. Record Documents are not to be used for construction purposes.

1.3 RECORDING OF CHANGES AND OTHER PERTINENT INFORMATION

A. Record all changes and other pertinent information concurrently with construction progress.

B. Accuracy of Records: Coordinate changes within the Record Documents, making adequate and proper entries on each page of Specifications and each sheet of Drawings and other documents where such entry is required to show change. The

accuracy of records shall be such that future searches for maintenance or analysis purposes may reasonably rely on information obtained from the Record Documents.

C. Do not permanently conceal any of the Work until changes or other pertinent information has been recorded on the appropriate Record Documents with dimensions from a permanent reference point.

D. Drawings:
1. Mark the drawing that is most capable of showing actual physical condition, fully and accurately.
2. Where Shop Drawings are marked up, mark cross reference on Contract Drawings at corresponding location.
3. Mark with erasable colored pencil, using separate colors where feasible to distinguish between changes for different categories of Work at same general location.
4. Mark the location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
5. Indicate all changes of dimension and detail, whether a field change or a directed change. Note Change Order number, Request for Information number, and/or similar identification associated with the initiation of each specific change.
6. Provide Contractor's construction details which may not have been shown on the original Contract Documents.

E. Specifications:
1. Legibly mark each Section of the Technical Specifications with the manufacturer, trade name, catalog number, serial number and supplier of each product and item of equipment actually installed in the construction.
2. Indicate all field changes and directed changes. Note Change Order number, Request for Information number, and/or similar identification associated with the initiation of each specific change.

F. Shop Drawings, Product Data and Samples: Maintain as Record Documents. Legibly annotate any changes made after review(s).

G. Label each Record Document "Project Record" in neat, large letters. This label shall appear in the same location on every record drawing.

1.4 SUBMITTAL OF RECORD DOCUMENTS

A. With its request for Substantial Completion of the Work, the Contractor shall furnish one marked-up print set of all Record Drawings and Specifications for review by the Construction Manager.

B. Submittals will be reviewed for adequacy only and returned with comments, if any, to the Contractor.

C. The Contractor shall incorporate all review comments into the Record Documents.

D. After incorporation of review comments in the Record Documents, the Contractor shall submit the following as a final submittal:

1. Drawings: one (1) mylar reproducible set (full-size, reverse reading, 3 mil thick) and three print sets of final marked-up drawings.
2. Specifications: two (2) sets of final marked-up specifications.
3. Shop Drawings, Product Data and Samples: one (1) copy each, except those related to the irrigation system, which shall be two (2) copies.

4. Test records, executed Change Orders, field orders, requests for information, supplemental instructions, and other pertinent documentation: two (2) copies each.

E. The final submittal shall include a transmittal letter containing the date, Project name and number, Contractor's name and address, title and number of each Record Document, certification that each document as submitted is complete and accurate, and the signature of the Contractor or of its authorized representative.

F. All revisions to and final submittal of Record Documents shall be completed to the acceptance of the Construction Manager and the County prior to Final Completion of the Work and final payment.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 78 39

SECTION 01 78 43

SPARE PARTS AND MAINTENANCE MATERIALS

PART I - GENERAL

1.1 GENERAL

A. The Contractor shall furnish all labor, materials, tools, equipment and services for the provision of spare parts and maintenance materials as required in conjunction with all of the Work performed, as indicated or as required, in accordance with the provisions of the Contract Documents.

PART 2 - PRODUCTS

2.1 SPARE PARTS AND MAINTENANCE MATERIALS

A. Refer to the individual sections of the Technical Specifications for items of Work required.
   1. Spare parts shall be as specified in the Technical Specifications, or if not specifically specified, as adequate to fulfill one year's usage of such parts.
   2. Maintenance materials ("attic stock") shall be as specified in the Technical Specifications.

2.2 PACKAGING AND LABELING

A. Package all parts and materials in sturdy boxes suitable in size to accommodate the quantity of items being packaged.

B. All boxes shall have a single, standardized label which shall provide locations to write or type all necessary information. This label shall include the Project name, and shall be large enough so as to be easily read from a distance of several feet. The following information shall be included on each label:
   1. Manufacturer's name, part or trade name and stock number.
   2. The piece of equipment or finish for which the part or material is to be used.
   3. Name, address and phone number of the closest supplier.

PART 3 – EXECUTION

3.1 DELIVERY

A. Spare parts and maintenance materials shall be submitted directly to the County, with a letter of transmittal which shall itemize all items being submitted, and which shall be signed by a representative of the County as acknowledgement of receipt.

B. Delivery of all parts and materials shall take place at a single time, unless previous approval is obtained from the Construction Manager. The time and location(s) of delivery shall be as determined by the County.

C. A copy of all signed letters of transmittal shall be provided to the Construction Manager.

D. The Contractor shall be responsible for the safe storage of all parts and materials until the designated time of inventory and acceptance by the County.

END OF SECTION 01 78 43

SECTION 02 41 91

SELECTIVE BUILDING DEMOLITION

PART I GENERAL

1.1 SUMMARY

A. Work

includes:

1. Removal of building stone for reuse.
2. Removal and disposal of masonry walls
3. Removal of masonry for reuse.
4. Removal and disposal of steel structural elements.
5. Removal of roofing.

1.2 RELATED WORK

A. Work specified in related sections includes:

1. Section 04 01 40 Maintenance of Stone Assemblies

B. Work Not in Contract to include:

1. Asbestos Abatement by Others: Testing, removal and disposal of asbestos-containing materials to be performed by Owner's Asbestos Abatement Contractor.

1.3 SUBMITTALS

A. Submit schedule showing sequence of work and methods of demolition. Include schedule for shutting off and capping utilities and re-establishing utility services.

1 .4 QUALITY ASSURANCE

A. Comply with safety requirements for demolition, ANSI A10 .6-90.

1.5 PROJECT CONDITIONS

A. Keep dust and dirt pollution to a minimum.

B. Ensure safety of persons in demolition area. Provide temporary barricades as required.

C. Provide adequate fire protection. Keep area clear of hazardous substances and debris.

D. Maintain access to exits at all times.

E. Separate demolition area from portions of building to remain with temporary dustproof partitions.

F. Provide temporary weather protection to prevent damage to structure and interior area.

1 .6 SCHEDULING

A. Complete demolition that might damage new construction before starting new work.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 PREPARATION

A. Asbestos Abatement work performed under separate contract must be completed prior to Selective Demolition Work covered in the Construction Documents.

B. Provide temporary supports and protection for portion of structure to remain. Protect fixtures and equipment to remain. Protect nearby structures and vegetation as necessary.

C. Cap or disconnect utilities. Provide bypass connections as necessary to maintain utility service to occupied areas of building.

3.2 DEMOLITION

A. Work systematically from top downward.

B. Demolish concrete and masonry in small sections.

C. Avoid excessive loads on supporting walls, floors, and framing by careful location of equipment and prompt removal of demolished materials. Maximum live load for existing roof is 20 lbs/sf.A.

3.3 SALVAGE

A. Items to be salvaged: Stone from rooftop equipment screen not reinstalled.

B. Items to be reused:

1. Face Brick on main building
2. Stone panels.
3. Lightening protection system

C. Carefully clean and store items to be salvaged or reused.

D. Storage Area: Store stone panels off site in secure area.

3.4 RESTORATION AND CLEAN-UP

A. Repair and clean adjacent surfaces damaged or soiled by demolition work.

B. Restore utility service to normal operation.

C. Remove equipment, temporary protection and barriers, and debris. Dispose of unsalvageable material as specified in Division 1.

END OF SECTION

SECTION 04 01 20

CLAY MASONRY CLEANING AND RESTORATION

PART1 GENERAL

1.1 SUMMARY

A. Work Includes:

1. Repairing clay masonry, including replacing damaged units.
2. Cleaning exposed clay masonry surfaces.
3. Repointing mortar joints.

B. Related Requirements

1. Division 7 Section "Sealants"

1.2 SUBMITTALS

A. Product data

B. Samples:

1. For each mortar type, provide four (4) samples of each ingredient intended for design mix of re-pointing mortar. For each mortar type, provide four (4) samples of cured mortar intended to match the historic mortar on the building in materials, design mix, color, texture, tooling, and workmanship. The purpose is to fix the approved ingredients and design mix as standards for final approval of the cured mortar for proposed work. Review and approval will consider the size, color, and texture to match the original, un-weathered mortars of the building as designated by the Contracting Officer.

C. Certificate: Manufacturer's certification that materials and products meet specified requirements.

1.3 QUALITY ASSURANCE

A. Standards - ASTM, ANSI, FS, PCA, manufacturer's printed recommendations as amended, latest edition, existing conditions of sound mortar, and approved sample areas shall govern the work of this section.

B. Skilled Craftsmen - Use an adequate number of craftsmen who are thoroughly trained, experienced, and certified in the masonry crafts and have a minimum of five years' experience with re-pointing historic masonry buildings. Craftsmen, including those designated to obtain mortar samples, must be completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.

C. Sample Collection and Analysis - Before Contractor purchases new mortar materials, the Contracting Officer shall approve areas on the building from which to obtain samples of mortar for analysis, which shall result in design mixes and colors for the proposed mortar. All mortar samples shall be analyzed by an architectural conservator who specializes in materials analysis, as approved by the Contracting Officer. No sample area for mortar

repointing work shall be performed until ingredients and design mix of proposed mortar is submitted, cured, and approved to match existing in materials, design mix, color, texture, tooling, and workmanship. In areas where Thorite has been used as a replacement for the original mortar, specifically, in the columns, a like material shall be used when undertaking any repair work.

1.4 PRODUCT HANDLING

A. Obtain approval of job submittals before delivering any product to job site. Deliver materials to job site in original, unopened containers, packages, or bundles with manufacturer's legible labels intact and seals unbroken. Do not use packages showing watermarks or other evidence of damage.

B. Store materials under cover in a dry, ventilated location (allow for air circulation) off the ground to prevent damage and intrusion of water or foreign matter. Protect all materials from the elements. Store materials in an approved, suitable location as directed by the Contracting Officer, and comply with health and safety regulations.

C. Unless otherwise indicated, follow manufacturer's recommendations for handling all products.

1.5 PROJECT CONDITIONS

A. Masonry work shall not be performed during freezing weather or when temperatures are predicted to fall below 45 degrees F. during the 7-day curing period. Exception is granted only by written permission from the Contracting Officer, and then only with the use of such precautionary measures as the Contracting Officer prescribes for doing the work and protecting it at all times. Such permission and the use of the methods prescribed will not, however, release the Contractor from the obligation to provide a satisfactory job.

B. Masonry work shall not be performed during rain without protection.

C. All work damaged by cold weather shall be removed and replaced. Provide suitable approved means to heat materials, protect work from cold and frost, and ensure that mortars will harden or dry without freezing.

D. In hot and dry weather, the mortar shall be protected from sun and shall be kept damp for at least 7 days after completion of re-pointing.

E. Unless otherwise specified, all work of this section shall be accomplished with hand tools. No masonry saws, power tools, or vibrating equipment will be permitted except as approved in advance in writing by the Contracting Officer.

1.6 PRECAUTIONS AND PROTECTION

A. Method of operation and use of equipment and materials shall not injure, deface, or endanger the appearance or conditions of the building, the site, or any of the surrounding areas and component parts including, but not limited to, paving, grass, and plants. Complete required operations to protect existing features and fabric of the building and surrounding areas before performing contract work. Complete operations that might damage new work before performing new task. All prerequisite and precautionary activities shall be completed before commencement of any masonry work.

B. Protect the building and its components at all times to prevent the ingress or deposits of water, chemical solutions, loose mortar, and debris. Take necessary steps to avoid foreign substances, solutions, or water ingress into openings of defective mortar joints and interior spaces of the building. Protect facing materials against staining during masonry work. Keep all work covered with non-staining, waterproof

coveringwhen work is not in progress. When work is resumed, surface of work shall be cleaned of all loose mortar and, in dry weather, thoroughly wet.

C. During masonry cleaning, be aware of wind drift. Pedestrians and cars should be protected and/or diverted from project area.

D. Take all precautions during mortar removal operations so as not to chip, fragment, deface, injure, or damage the existing masonry units, including their edges. Exercise care not to rake open existing joints any deeper than necessary to provide a clean and sound base for re-pointing mortar. Exercise all care to insure that sound original mortar is not eroded or otherwise weakened.

PART 2 PRODUCTS

2.1 CLEANING MATERIALS AND EQUIPMENT

A. Potable water - Free from acids, alkalis, or other dissolved organic materials.

B. Herbicide: Isopropylamine salt of glyphosphate. Roundup, manufactured by Monsanto Chemical Company, St. Louis, Missouri, or approved equal.

C. Detergent: Non-ionic.

D. Acid: Hydrofluoric acid in weak solution, 1 to 3 percent. Stronger solutions, not to exceed 5 percent, may be used if approved by Contracting Officer.

E. Equipment (for water pressure cleaning and rinsing) - Fully self-contained, portable, operating unit mounted in a trailer or truck. It should carry all necessary hoses, valves, pumps, water tanks, fuel tanks, power plant, batteries, and safety equipment to carry out the specified tasks.

1. Valves - Pressure water gauges or valves (for water pressure control) shall be installed at the water pump and at the discharge end of the nozzles to determine, establish, and keep a constant water pressure for cleanup operations. A wooden governor, measuring 2' shall be installed at the discharge end of the nozzle to prevent the nozzle from getting too close to the masonry.
2. Low Pressure Water Lance and Nozzle - Water not to exceed 100 psi pressure using an appropriate nozzle as approved by Contracting Officer to produce cleaning and rinsing results as determined by sample area.

2.2 MORTAR REMOVAL TOOLS

A. Use knives, hacksaw blades, or bent spikes for raking and plugging or, if necessary, long neck jointing; use toothed masonry chisels for cutting. Cold chisels are prohibited.

2.3 MORTAR MATERIALS

A. Portland Cement: ASTM C150-92, Type I, white and/or gray in mixture to match existing mortar color.

B. Lime: ASTM C207-91, Type S.

C. Sand: ASTM C 144-93 - fine, angular, of medium fineness, thoroughly washed and free from salt, organic, earthy, and clayey matters; color and texture shall match existing. Before use, sand shall be screened, washed, and dried.

D. Water: Potable, free of impurities and organic materials Thorite, or approved equal.

2.4 MORTAR MIXES (MEASURED BY VOLUME):

A. The Contractor shall be responsible for matching the original mortars by analyzing un-weathered core samples taken from joints within walls and columns and as approved by the Contracting Officer. All mortar samples shall be of materials original to that section of the building, as identified in Section 2.4 B. Analyze the core samples of exiting mortars to determine color, texture, and composition, and to provide an approved mix to match existing original mortar.

2.5 TEMPORARY COVERING AND CURING MATERIALS

A. 6 mil, black polyethylene with wide plastic packing tape or other protective curing fabric and related items as approved by the Contracting Officer to properly cure pointing mortar.

PART 3 EXECUTION

3.1 GENERAL

A. Receive approval of all submittals and sample areas before start of any masonry work on the building. Weather conditions, equipment, and overall job techniques and results shall be equal to or better than those approved in sample areas for cleaning and repointing.

B. Clean and rinse masonry before raking and repointing. All cleaning, rinsing, and repointing shall start with the upper specified areas of the building and work downward unless otherwise approved by the Contracting Officer.

C. Directions for execution of the work may be changed and supplemented by the Contracting Officer as necessary.

3.2 CLEANING EXISTING EXTERIOR MASONRY

A. Remove grime, vegetation, and other foreign matter from walls and from items that are to be removed and salvaged, fully revealing masonry materials.

B. Determine method of cleaning in the presence of the Contracting Officer. Experiment on portions of existing walls scheduled for demolition or a concealed area, as directed. Clean an area of about 30 square feet, using specified cleaning methods in turn until the Contracting Officer determines the safest and most satisfactory method or combination of methods.

C. Protect vegetation and surfaces not to be cleaned.

D. Using approved methods, begin at top of wall and work down.

1. Herbicidal: Using a roller, thoroughly saturate surface with solution of one part herbicide and nine parts water. Four days after treatment, when wall is thoroughly dry, brush or scrub the treated surface clean.

2. Hand Scrubbing: Wet area to be cleaned. Scrub with a nonmetallic soft bristle brush, using water that may have small amount of detergent added. Rinse thoroughly.

3. Water Spraying: Spray as directed with fine mist. Use filter on hose to obtain preferred degree of misting.

4. Pressure Washing: Spray with 120-degree F water, beginning with low pressure and increasing as necessary, not exceeding 640 psi. Scrub while surface is saturated, then flood with clean water.

E. Upon approval of submittals, carefully clean the building with potable water under pressure, range, and size and type of nozzle as determined and approved in sample area. All cleaning and rinsing shall be thorough with water under pressure, range, and size of nozzle as determined and approved for sample area of each material to be removed or cleaned. Pressure shall be the least possible to achieve the desired result, and distance of nozzles from surfaces shall be the most possible to clean and rinse masonry surfaces without injuring or defacing the existing masonry. Water pressure is not to exceed 100 psi. The pressurized water washing may be supplemented by the use of stiff, natural bristle or nylon brushes. Using approved methods, begin at top of building and work down.

3.3 MORTAR REMOVAL WORK

A. Remove all existing mismatched, mis-colored, loose, and defective mortar in joints to a 1-inch minimum depth (greater if necessary) until a sound surface is reached. Otherwise, all existing, original, sound mortar shall remain in place and undisturbed. Fill all voids beneath the minimum depths with mortar to provide a clean base and joints for pointing and sealing.

B. Take all precaution during removal operations not to chip, fragment, deface, injure, or damage the existing masonry units including their edges. Use knives, hacksaw blades, or bent spikes for raking and plugging, and, if necessary, long neck jointing or toothed masonry chisels for cutting. Masonry saws, power tools, and cold chisels are prohibited.

C. Sweep thoroughly clean with a small broom or blow out with compressed air all voids, joints, and surfaces to a sound, solid surface. Exercise all care to insure that sound, original mortar is not eroded or otherwise weakened.

3.4 MIXING MORTAR FOR REPOINTING

A. Match existing based upon analysis of approved mortar sample taken from the building and as approved in sample area. Accurately measure and mix in all materials by volume as dry as can be handled until thoroughly mixed. Just before pointing, mix into dry ingredients only enough water to make mortar of workable consistency. To insure complete hydration, mix for a minimum of 10 minutes after all materials have been added. If mortar begins to stiffen from evaporation or absorption, re-temper the mortar immediately by adding water and re-mixing.

B. Mix only enough mortar that can be used within 20 minutes after the addition of water. Any mortar remaining thereafter shall be discarded. Re-tempering within this limit will be permitted only as necessary to maintain workability. Use no calcium admixtures, antifreeze chemical (chloride), or additives.

3.5 MASONRY REPOINTING

A. All joints and adjacent materials shall be thoroughly clean and free of dirt, debris, loose mortar, and defects or conditions that might affect proper application and bonding.

B. Before repointing, wet all masonry units, joints, and voids created by removed mortar with clean water. Where fresh masonry joins masonry that is partially set or totally set, roughen and clean the exposed surface of the set mortar and lightly wet the set mortar and masonry to obtain the best possible bond with the new work. All masonry shall be wetted before pointing, but it must be free from water adhering to its surfaces when it is pointed.

C. Clean and dampen areas to receive repointing work, and slush fill all potential voids in masonry with mortar. Make joints in masonry work uniform to match original joint widths.

D. Apply mortar into the joints, voids, and crevices with sufficient pressure to assure a solid joint, a close weather-tight fit, and proper bond. Fill and close all voids, holes, crevices, and cracks. Butter and shove head joints to ensure full joints. Make and tool joints uniformly to match existing as approved in sample areas. If mortar has hardened, defects shall be chiseled out, wetted, and refilled solidly with fresh mortar and tooled as specified.

E. With fresh mortar, point joints in exposed masonry. After becoming thumbprint hard, tool exposed joints in masonry and bedding areas to match existing and approved sample panel. Point and fill spaces insuring that the new work merges with and matches the existing original tooling as approved.

3.6 FINAL MASONRY CLEANING

A. Immediately after pointing and while the mortar is fresh, all face units and joints shall be thoroughly cleaned of excess mortar and mortar stains and shall be kept clean until the work is completed and accepted. All such cleaning work shall be by hand, using only stiff, natural fiber or nylon brushes and potable water. No acidic or alkaline substance shall be used.

3.7 CURING OF MORTAR

A. Immediately after final masonry cleaning, all new mortar shall be kept covered and moist under a non-staining covering for a period of at least 7 days.

B. In hot/dry weather, satisfactorily protect new mortar from sun and keep it damp by spraying. Should temperatures unexpectedly fall below 40 degrees, provide suitable means as approved by the Contracting Officer to heat materials and ensure that mortar will harden without freezing. Such approval, however, will not release the Contractor from his obligation to provide a satisfactory product. All work damaged by cold weather shall be removed and replaced at Contractor's expense.

3.8 CLEAN-UP

A. Debris and waste resulting from the mortar work shall be suitably disposed off-site in approved areas intended for that purpose.

END OF SECTION

SECTION 04 01 40.52

MAINTENANCE OF STONE ASSEMBLIES

PART1 GENERAL 1.1

SUMMARY

A. Work Includes:

1. Repairing stonework, including replacing damaged units.
2. Cleaning exposed stone surfaces.

B. Related Requirements

1. Division 7 Section "Joint Sealants"

1.2 DEFINITIONS

A. Definitions contained in ASTM C 119 apply to this Section.

B. Dimension Stone Cladding System: An exterior wall covering system consisting of dimension stone panels together with the anchors, fasteners, and sealants used to secure the stone to the building structure and to produce a weather-resistant covering.

1.3 SUBMITTALS

A. Product Data: For each stone accessory and other manufactured products indicated.

B. Shop Drawings: Show details of fabrication and installation of dimension stone cladding system, including dimensions and profiles of stone units.

1. Show locations and details of joints both within dimension stone cladding system and between dimension stone cladding system and other construction.
2. Include details of mortar joints, sealant joints, and mortar joints pointed with sealant.
3. Show locations and details of anchors.

C. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has completed dimension stone cladding systems similar in material, design, and extent to those indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

1. Installer's responsibilities include engineering, fabricating, and installing dimension stone cladding system.

B. Source Limitations for Other Materials: Obtain each type of stone accessory, sealant, and other material from a single manufacturer for each product.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store and handle stone and related materials to prevent deterioration or damage due to moisture, temperature changes, contaminants, corrosion, breaking, chipping, and other causes.

1. Lift with wide-belt slings; do not use wire rope or ropes that might cause staining. Move stone, if required, using dollies with cushioned wood supports.
2. Store stone on wood skids or pallets with nonstaining, waterproof covers. Arrange to distribute weight evenly and to prevent damage to stone. Ventilate under covers to prevent condensation.

1.6 SALVAGED MATERIALS

A. Remove salvaded but not reused material to site designated by Owner. Package with protective covering for storage and identified with labels describing contents.

PART 2 PRODUCTS

2.1 ANCHORS

A. Fabricate anchors, including shelf angles, from stainless steel, ASTM A 666, Type 304, temper as required to support loads imposed without exceeding allowable design stresses.

1. Fasteners for Stainless-Steel Anchors: Annealed stainless-steel bolts, nuts, and washers; ASTM F 593 for bolts and ASTM F 594 for nuts, Alloy Group 1.

2.2 STONE ACCESSORIES

A. Setting Buttons: Lead or resilient plastic buttons, nonstaining to stone, sized to suit joint thicknesses and bed depths of stone units without intruding into required depths of joint sealants or causing third-side adhesion between sealant and setting button.

B. Setting Shims: Strips of resilient plastic or vulcanized neoprene, 50 to 70 Shore A durometer, nonstaining to stone, sized to suit joint thicknesses and depths of stone supports without intruding into required depths of joint sealants or causing third-side adhesion between sealant and setting shims.

C. Concealed Sheet Metal Flashing: Fabricate from stainless steel complying with requirements specified in Division 7 Section "Sheet Metal Flashing and Trim" in thicknesses indicated, but not less than 0.0156 inch thick.

D. Weep and Vent Tubes: Medium-density polyethylene tubing, 1/4-inch OD and of length required to extend from exterior face of stone to cavity behind.

2.3 STONE FABRICATION

A. General: Fabricate stone units in sizes and shapes required to comply with requirements indicated, including details on Drawings and Shop Drawings.

1. For marble, comply with recommendations in MIA's "Dimensional Stone--Design Manual IV."

B. Cut and drill sinkages and holes in stone for anchors, fasteners, supports, and lifting devices as indicated or needed to set stone securely in place; shape beds to fit supports.

C. Cut stone to produce pieces of thickness, size, and shape indicated and to comply with fabrication and construction tolerances recommended by applicable stone association or, if none, by stone source, for faces, edges, beds, and backs.

1. Minimum Thickness: Provide stone units of not less than the following thickness, unless otherwise indicated:

   a. Marble: 3 inch.

2. Control depth of stone and back check to maintain minimum clearances indicated between backs of stone units and surfaces or projections of structural members, fireproofing (if any), backup walls, and other work behind stone.

   a. Minimum Clearance: 1 inch.

3. Dress joints (bed and vertical) straight and at right angle to face, unless otherwise indicated.
4. Quirk-miter corners, unless otherwise indicated; provide for cramp anchorage in top and bottom bed joints of corner pieces.
5. Cut stone to produce joints of uniform width and in locations indicated.

   a. Joint Width: 3/8 inch.

6. Clean backs of stone to remove rust stains, iron particles, and stone dust.

D. Contiguous Work: Provide chases, reveals, reglets, openings, and similar features as required to accommodate contiguous work.

E. Finish exposed faces and edges of stone, except sawed reveals, to comply with requirements indicated for finish and to match existing work.

F. Pattern Arrangement: Reinstall and arrange panels with veining and other natural markings to comply with the following requirements:

1. Mark stones as they are removed to identify location and direction of stones. Reinstall in exact order and orientation of removed stones.
2. Select replacement panels from salvaged, but not reused pieces. Match color and veining as closely as possible from available stock..

F. Carefully inspect salvaged stone units at site for compliance with requirements for appearance, material, and fabrication.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine surfaces to receive dimension stone cladding and conditions under which dimension stone cladding will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Advise installers of other work about specific requirements for placement of inserts, flashing reglets, and similar items to be used by dimension stone cladding Installer for anchoring, supporting, and flashing of dimension stone cladding system. Furnish installers of other work with Drawings or templates showing locations of these items.

B. Protect dimension stone cladding during erection as follows:

1. Cover tops of dimension stone cladding installation with nonstaining, waterproof sheeting at end of each day's work. Cover partially completed structures when work is not in progress. Extend cover a minimum of 24 inches down both sides and hold securely in place.
2. Prevent staining of stone from mortar, grout, sealants, and other sources. Immediately remove such materials without damaging stone.
3. Protect base of walls from rain-splashed mud and mortar splatter by coverings spread on ground and over wall surface.
4. Protect sills, ledges, and projections from mortar and sealant droppings.

C. Clean stone surfaces that are dirty or stained by removing soil, stains, and foreign materials before setting. Clean stone by thoroughly scrubbing with fiber brushes and then drenching with clear water. Use only mild cleaning compounds that contain no caustic or harsh materials or abrasives.

3.3 SETTING DIMENSION STONE CLADDING, GENERAL

A. Execute dimension stone cladding installation by skilled mechanics and employ skilled stone fitters at Project site to do necessary field cutting as stone is set.

1. Use power saws with diamond blades to cut stone. Produce lines cut straight and true, with edges eased slightly to prevent snipping.

B. Contiguous Work: Provide reveals, reglets, and openings as required to accommodate contiguous work.

C. Set stone to comply with requirements indicated on Drawings and Shop Drawings. Install anchors, supports, fasteners, and other attachments indicated or necessary to secure dimension stone cladding in place. Shim and adjust anchors, supports, and accessories to set stone accurately in locations indicated with uniform joints of widths indicated and with edges and faces aligned according to established relationships and indicated tolerances.

D. Provide expansion, control, and pressure-relieving joints of widths and at locations indicated.

1. Sealing expansion and other joints is specified in Division 7 Section "Joint Sealants."
2. Keep expansion joints free of mortar and other rigid materials.

E. Install concealed flashing at continuous shelf angles, lintels, ledges, and similar obstructions to downward flow of water to divert water to building exterior.

F. Keep cavities open where unfilled space is indicated between back of stone units and backup wall; do not fill cavities with mortar or grout.

1. Place weep holes and vents in joints where moisture may accumulate, including base of cavity walls, above shelf angles, and flashing. Locate weep holes and vents at intervals not exceeding 24 inches and for those serving as vents only, at intervals not exceeding 60 inches horizontally and 20 feet vertically.

3.4 INSTALLATION TOLERANCES

A. Variation from Plumb: For vertical lines and surfaces of walls, do not exceed 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2 inch in 40 feet or more. For external corners, corners and jambs within 20 feet of an entrance, expansion joints, and other conspicuous lines, do not exceed 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 3/8 inch in 40 feet or more.

B. Variation from Level: For lintels, sills, water tables, parapets, horizontal bands, horizontal grooves, and other conspicuous lines, do not exceed 1/8 inch in 10 feet, ¼ inch in 20 feet or 3/8 inch maximum.

C. Variation of Linear Building Line: For positions shown in plan and related portions of walls and partitions, do not exceed 1/4 inch in 20 feet or 1/2 inch in 40 feet or more.

D. Variation in Cross-Sectional Dimensions: For thickness of walls from dimensions indicated, do not exceed plus or minus 1/4 inch.

E. Variation in Joint Width: Do not vary joint thickness more than 1/8 inch in 36 inches or a quarter of nominal joint width, whichever is less.

F. Revise or delete below for natural-cleft, thermal, and similar finishes.

G. Variation in Plane between Adjacent Stone Units (Lipping): Do not exceed 1/16-inch difference between planes of adjacent units.

3.5 JOINT SEALANT INSTALLATION

A. Prepare joints and apply sealants of type and at locations indicated to comply with applicable requirements in Division 7 Section "Joint Sealants."

3.6 ADJUSTING AND CLEANING

A. Remove and replace broken, chipped, stained, or otherwise damaged stone, defective joints, and dimension stone cladding that does not match approved samples. Damaged stone may be repaired if Architect approves methods and results.

B. Replace in a manner that result in dimension stone cladding's matching approved samples, complying with other requirements, and showing no evidence of replacement.

C. Clean dimension stone cladding no fewer than six days after completion of pointing and sealing, using clean water and stiff-bristle fiber brushes. Do not use wire brushes, acid-type cleaning agents, cleaning agents containing caustic compounds or abrasives, or other materials or methods that could damage stone.

END OF SECTION

SECTION 04 20 00

UNIT MASONRY

PARTI GENERAL

1.1 SUMMARY

A. Work includes:

1. Brick
2. Mortar

1.2 RELATED WORK

A. Sealants - Section 07 90 00.

1.3 SUBMITTALS

A. Manufacturer's Literature:

1. Joint reinforcement, anchors, ties and accessories.
2. Admixtures: Describe content, properties, and recommended dosage.

B. Shop Drawings: Show all fabrication dimensions and locations for placing reinforcing steel and accessories.

C. Samples:

1. At least six full-size masonry units of each type to define the range and variability of color and show texture, dimensions, marking, chipping, and cracking.
2. Cured mortar showing color; reinforcement, accessories, and wall ties; (lashings.

D. Certification: If requested, furnish affidavits from manufacturers certifying that materials and products meet specifications.

E. Test Reports:

1. Compressive strength of masonry units.

F. Proposed hot and cold weather construction procedures.

1 .4 DELIVERY, STORAGE AND HANDLING

A. Deliver Accessories in original unopened containers, store in a dry place, off the ground.

B. Store cementitious materials and concrete masonry units in a dry place off the ground, under cover that permits air circulation but protects from damage and intrusion of water and foreign matter.

C. Handle and store masonry units on pallets.

1.5 PROJECT CONDITIONS

A. Do not lay masonry when ambient temperature is below 40 degrees F, unless approved means are provided to heat materials, protect work from cold and frost, and ensure that mortar will harden without freezing.

B. If water saturation cleaning methods are used, allow enough time for masonry to dry

thoroughly before it is exposed to freezing temperatures.

PART 2 PRODUCTS

2.1 BRICK

A. Salvaged: Approved, sound, crack-free, clean brick without face chips larger than 1/2 inch, salvaged from removal or demolition work.

B. Facing: ASTM C216-92d, Grade SW, Type FBS.

C. Color and texture: Match existing.

2.2 MORTAR

A. ASTM C270-92a, Type S, meeting Proportion Specification requirements. Use low alkali Type I or II Portland cement, Type S Hydrated Lime or Type S Masonry Cement, potable water, and a water reducing and plasticizing agent.

B. Color: Match existing.

1. PROTECTING AND CLEANING

2.3 JOINT REINFORCEMENT, ANCHORS, AND TIES

1. Screw-Attached, Masonry-Veneer Anchors: Units consisting of a wire tie and a metal anchor section.

   a. Anchor Section: Rib-stiffened, sheet metal plate with screw holes top and bottom, 2-3/4 inches wide by 3 inches high; with projecting tabs having slotted holes for inserting vertical legs of wire tie specially formed to fit anchor section.
   b. Fabricate sheet metal anchor sections and other sheet metal parts from 0.109-inchthick, stainless-steel sheet.
   c. Wire Ties: Triangular-, rectangular-, or T-shaped wire ties fabricated from 0.25inch- diameter, stainless-steel wire.
   d. Available Products:
      1) Dayton Superior Corporation, Dur-O-Wal Division; D/A 213 or D/A 210with D/A 700-708.
      2) Heckmann Building Products Inc.; 315-D with 316 or Pos-I-Tie.
      3) Hohmann & Barnard, Inc.; DW-10 DW-1OHS or DW-10-X.
      4) Wire-Bond; 1004, Type III or RJ-71 1.

2.4 FLASHING

A. Rubberized-Asphalt Flashing: Composite flashing product consisting of a pliable, adhesive rubberized-asphalt compound, bonded to a high-density, cross-laminated polyethylene film to produce an overall thickness of not less than 0.040 inch.

1. Available Products:

   e. Advanced Building Products Inc.; Peel-N-Seal.
   f. Carlisle Coatings & Waterproofing; CCW-705-TWF Thru-Wall Flashing.
   g. Dayton Superior Corporation, Dur-O-Wal Division; Dur-O-Barrier-44.
   h. Grace Construction Products, a unit of W. R. Grace & Co. - Conn.; Perm-A-Barrier Wall Flashing.
   i. Heckmann Building Products Inc.; No. 82 Rubberized-Asphalt Thru-WallFlashing.

j. Hohmann & Barnard, Inc.; Textroflash.
k. Polyguard Products, Inc.; Polyguard 300.
1. Polytite Manufacturing Corp.; Poly-Barrier Self-Adhering Wall Flashing.
M. Williams Products, Inc.; Everlastic MF-40.

2.5 WEEPS

A. Round Plastic Weep/Vent Tubing: Medium-density polyethylene, 3/8-inch OD by 4 inches long.

2.6 CLEANING MATERIALS

A. Water: Potable.

B. Detergent: Non-ionic.

C. Acid: Hydrofluoric acid in weak solution, I to 3 percent. Stronger solutions, not to exceed 5 percent, may be used if approved by Architect..

PART 3 EXECUTION

3.1 PREPARATION

A. Before starting masonry work, verify that work supporting the masonry are constructed to elevations and dimensions shown and that reinforcing dowels and connectors are accurately placed. Do not proceed with work until deficiencies have been corrected.

B. Remove laitance, debris, ice, ponding water, and other foreign matter that might prevent bonding of masonry to supporting elements.

C. Do not construct masonry during rain, sleet, or snow without protection. Follow approved hot and cold weather procedures.

D. Clean reinforcement anchors and ties before setting in mortar.

3.2 MIXING MORTAR

A. ASTM C270-92a.

3 .3 MASONRY (GENERAL)

A. Protect adjacent surfaces from staining. Keep tops of walls covered with nonstaining waterproof coverings when work is not in progress. When work is resumed, clean loose mortar from top surface.

B. Keep open space at expansion joints free of mortar by using a continuous wood or metal strip temporarily set in the wall.

C. Where fresh masonry joins masonry that is partially or totally set, clean the exposed surface of the set masonry and wet lightly to obtain the best possible bond with the new work. Remove all loose brick and mortar.

D. Stop horizontal run of masonry by stepping back one-half of masonry unit length in each course.

E. Build in work of other trades as work progresses. Set lintels in full beds of mortar. Fill spaces around jambs and heads of metal door bucks and frames solidly with mortar. Build in anchors and clips for window and door frames.

F. Provide adequate curing for masonry in accordance with approved hot and cold weather construction procedures. Protect new construction from direct sunlight and wind. Wet exposed mortar joints with a fine water spray daily for four days or cover masonry with polyethylene.

G. Minimum compressive strength of masonry, fm, shall be 1,500 psi.

3.4 REPAIRING AND REPLACING

A. Remove mortar, tar, stucco, and other foreign material from face of wall. Remove loose and damaged masonry, masonry units from which foreign material cannot be removed, and brick with face chips over 1/2 inch or cracks penetrating entire unit.

B. Rake out loose and deteriorated mortar to a depth of 3/4 to 1 inch. Flush raked out joints and other wall voids with clean water.

C. Repointing: Apply mortar to joint in several 1/4-inch-wide layers under sufficient pressure to ensure a solid joint. When each layer of mortar is thumbprint hard, the following layer may be applied. When final layer is thumbprint hard, tool mortar to match existing joints.

D. Placing and Replacing Masonry: Clean and dampen existing masonry. Set unit accurately into position in full bed of mortar with vertical and top joint full. Match existing bond and key new unit into the existing masonry. Make joints same width as adjacent joints and tool to match. Both new and repair work shall resemble existing work as closely as possible.

E. Placing and Replacing Masonry: Clean and dampen existing masonry. Set unit accurately into position in full bed of mortar with vertical and top joint full. Match existing bond and key new unit into the existing masonry. Make joints same width as adjacent joints and tool to match. Both new and repair work shall resemble existing work as closely as possible.

3 .5 BRICK

A. Brick having absorption rates more than 0.025 ounce per square inch per minute shall be wetted before laying so the rate of absorption of laid brick does not exceed this amount. Field check by wetting an area approximately 1 inch diameter on the flat side of the brick. If the water disappears in less than 1-1/2 minutes, wet the brick. Thoroughly soak absorptive brick in the pile on the afternoon before the day of use, spraying brick with a heavy coarse sprinkle until water runs from all sides of the pile. Cover pile with tarpaulin or heavy paper to prevent evaporation. Brick surfaces shall be free from water when bricks are laid.

B. Lay brick in bond to match existing, plumb, level, and true to line in full beds of mortar. Filljoints in brickwork and joints between brick and other materials with mortar as each course is laid. Butter and shove head joints to ensure full mortar joints.

C. Install anchors and ties as shown.

D. Make joints in brickwork uniform, approximately 3/8 inch wide. When mortar is thumbprint hard, tool exposed joints concave, closing all cracks and crevices. Trowel point exterior joints below grade. Cut other concealed joints flush. Rake joints as necessary to receive sealant. Tool white cement mortar with nonmetallic tools.

E. Where flashing or waterproofing turns out and terminates in horizontal mortar joints, and over top of steel lintels or shelf angles, provide weep holes in the mortar joint to permit water to drain from the wall. Space weep holes 24 inches apart horizontally. Form weep holes by pressing sash cords into the soft mortar bed. When mortar has set, pull cords from wall.

3.6 FLASHING

A. Start flush inch from the outside face of the wall. Turn through-wall, head, and sill flashings up at the inside face of the wall not less than 8 inches. Extend flashing 6 inches beyond any steel lintels on each side of openings. Make horizontal joints in flashing by rolling back the top layer 4 inches, interlock the pieces, and coat all contacting surfaces with plastic cement. Use plastic cement to seal flashing to steel, concrete, and other surfaces.

3.7 POINTING

A. Point and fill holes and cracks in exposed joints with additional fresh mortar. If mortar has hardened, chisel out defects, wet joint, refill solidly with fresh mortar, and tool as specified above.

3.8 FINAL CLEANING

A. Before cleaning finished masonry, apply the approved cleaning agents to approximately 24-square-foot sections at inconspicuous approved places. After seven days observe results. If mortar joints and masonry units are not adversely affected, use the same cleaning materials and methods on remaining wall areas.

B. Protect work not to be cleaned. Clean exposed masonry from top down, scrubbing with nonmetallic soft bristle brushes and water to remove stains and mortar, cleaning only a small area at a time. Rinse surfaces thoroughly with clean water immediately after cleaning to avoid etching or staining masonry. If cleaning solutions are necessary, wet walls before applying solutions. Approved solutions of soap powder or mild detergents may be applied no sooner than 48 hours after construction. Apply acid solutions only with approval and only after mortar has cured a minimum of seven days.

C. Remove efflorescence in accordance with unit masonry product manufacturer's recommendation.

D. Do not use acid solutions, metal tools and brushes, or abrasive powders for cleaning glazed brick or block units. Wash units with an approved solution of soap powder or detergent and warm water.

END OF SECTION

SECTION 05 50 00

METAL FABRICATIONS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel framing and supports for applications where framing and supports are not specified in other Sections.
2. Miscellaneous steel trim including steel angle corner guards, steel edgings and, loading dock edge angles.

B. Products furnished, but not installed, under this Section:

1. Loose steel lintels.
2. Anchor bolts, steel pipe sleeves, slotted-channel inserts, and wedge-type inserts indicated to be cast into concrete or built into unit masonry.

1.2 SUBMITTALS

A. Product Data: For the following:

1. Nonslip aggregates and nonslip-aggregate surface finishes.
2. Metal nosings.
3. Paint products.
4. Grout.

B. Shop Drawings: Show fabrication and installation details for metal fabrications.

1. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.

C. Mill Certificates: Signed by manufacturers of stainless-steel certifying that products furnished comply with requirements.

D. Welding certificates.

E. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers certifying that shop primers are compatible with topcoats.

1.3 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel according to AWS DI.1/D1.1M, "Structural Welding Code - Steel."

B. Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
2. AWS D1.2/D1.2M, "Structural Welding Code - Aluminum."
3. AWS D1.6, "Structural Welding Code - Stainless Steel."

1.4 PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

1.5 COORDINATION

A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.

PART 2 - PRODUCTS

2.1 METALS, GENERAL

A. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

2.2 FERROUS METALS

A. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

B. Stainless-Steel Sheet, Strip, and Plate: ASTM A 240 or ASTM A 666, Type 304.

C. Stainless-Steel Bars and Shapes: ASTM A 276, Type 304.

2.3 NONFERROUS METALS

A. Aluminum Plate and Sheet: ASTM B 209, Alloy 6061-T6.

B. Aluminum Extrusions: ASTM B 221, Alloy 6063-T6.

C. Aluminum-Alloy Rolled Tread Plate: ASTM B 632/B 632M, Alloy 6061-T6.

D. Aluminum Castings: ASTM B 26/B 26M, Alloy 443.0-F.

2.4 FASTENERS

A. General: Unless otherwise indicated, provide Type 304 stainless-steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B 633 or ASTM F 1941, Class Fe/Zn 5, at exterior walls. Select fasteners for type, grade, and class required.

1. Provide stainless-steel fasteners for fastening aluminum.
2. Provide stainless-steel fasteners for fastening stainless steel.

B. Steel Bolts and Nuts: Regular hexagon-head bolts, ASTM A 325, Type 3; with hex nuts,
ASTM A 563, Grade C3; and, where indicated, flat washers.

C. Stainless-Steel Bolts and Nuts: Regular hexagon-head annealed stainless-steel bolts, ASTM F 593; with hex nuts, ASTM F 594; and, where indicated, flat washers; Alloy Group 1.

D. Eyebolts: ASTM A 489.

E. Machine Screws: ASME B 18.6.3.

F. Lag Screws: ASME B 18.2.1.

G. Wood Screws: Flat head, ASME B 18.6.1.

H. Plain Washers: Round, ASME B 18.22.1.

I. Lock Washers: Helical, spring type, ASME B18.21.1.

J. Anchors, General: Anchors capable of sustaining, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed when installed in concrete, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.

K. Post-Installed Anchors: Torque-controlled expansion anchors or chemical anchors.

1. Material for Interior Locations: Carbon-steel components zinc plated to comply with
ASTM B 633 or ASTM F 1941, Class Fe/Zn 5, unless otherwise indicated.
2. Material for Exterior Locations and Where Stainless Steel is Indicated: Alloy Group 1 stainless-steel bolts, ASTM F 593, and nuts, ASTM F 594.

2.5 MISCELLANEOUS MATERIALS

A. Welding Rods and Bar Electrodes: Select according to AWS specifications for metal alloy welded.

B. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible with topcoat.

1. Use primer containing pigments that make it easily distinguishable from zinc-rich primer.

C. Epoxy Zinc-Rich Primer: Complying with MPI#20 and compatible with topcoat.

D. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.

E. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.

F. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.

2.6 FABRICATION, GENERAL

A. Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.

B. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.

C. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

D. Form exposed work with accurate angles and surfaces and straight edges.

E. Weld corners and seams continuously to comply with the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

F. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners or welds where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) fasteners unless otherwise indicated. Locate joints where least conspicuous.

G. Fabricate seams and other connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.

H. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.

I. Provide for anchorage of type indicated; coordinate with supporting structure. Space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.

1. Where units are indicated to be cast into concrete or built into masonry, equip with integrally welded steel strap anchors, 1/8 by 1-1/2 inches, with a minimum 6-inch embedment and 2-inch hook, not less than 8 inches from ends and corners of units and 24 inches o.c., unless otherwise indicated.

2.7 MISCELLANEOUS FRAMING AND SUPPORTS

A. General: Provide steel framing and supports not specified in other Sections as needed to complete the Work.

B. Fabricate units from steel shapes, plates, and bars of welded construction unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction.

1. Fabricate units from slotted channel framing where indicated.
2. Furnish inserts for units installed after concrete is placed.

C. Galvanize miscellaneous framing and supports where indicated.

D. Prime miscellaneous framing and supports with zinc-rich primer where indicated.

2.8 MISCELLANEOUS STEEL TRIM

A. Unless otherwise indicated, fabricate units from steel shapes, plates, and bars of profiles shown with continuously welded joints and smooth exposed edges. Miter corners and use concealed field splices where possible.

B. Provide cutouts, fittings, and anchorages as needed to coordinate assembly and installation with other work.
1. Provide with integrally welded steel strap anchors for embedding in concrete or masonry construction.

C. Galvanize exterior miscellaneous steel trim.

D. Prime exterior miscellaneous steel trim with zinc-rich primer.

2.9 LOOSE STEEL LINTELS

A. Fabricate loose steel lintels from steel angles and shapes of size indicated for openings and recesses in masonry walls and partitions at locations indicated. Fabricate in single lengths for each opening unless otherwise indicated. Weld adjoining members together to form a single unit where indicated.

B. Size loose lintels to provide bearing length at each side of openings equal to 1/12 of clear span but not less than 8 inches unless otherwise indicated.

C. Galvanize loose steel lintels located in exterior walls.

D. Prime loose steel lintels located in exterior walls with zinc-rich primer.

2.10 STEEL WELD PLATES AND ANGLES

A. Provide steel weld plates and angles not specified in other Sections, for items supported from concrete construction as needed to complete the Work. Provide each unit with no fewer than two integrally welded steel strap anchors for embedding in concrete.

2.11 FINISHES, GENERAL

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Finish metal fabrications after assembly.

C. Finish exposed surfaces to remove tool and die marks and stretch lines, and to blend into surrounding surface.

2.12 STEEL AND IRON FINISHES

A. Galvanizing: Hot-dip galvanize items as indicated to comply with ASTM A 153/A 153M for steel and iron hardware and with ASTM A 123/A 123M for other steel and iron products.

1. Do not quench or apply post galvanizing treatments that might interfere with paint adhesion.

B. Shop prime iron and steel items not indicated to be galvanized unless they are to be embedded in concrete, sprayed-on fireproofing, or masonry, or unless otherwise indicated.

1. Shop prime with universal shop primer.

C. Preparation for Shop Priming: Prepare surfaces to comply with SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."

D. Shop Priming: Apply shop primer to comply with SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting.

1. Stripe paint corners, crevices, bolts, welds, and sharp edges.

2.13 ALUMINUM FINISHES

A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

B. As-Fabricated Finish: AA-M10 (Mechanical Finish: as fabricated, unspecified).

C. Class I, Clear Anodic Finish: AA-M12C22A41 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location,

alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.

B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.

C. Field Welding: Comply with the following requirements:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

D. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag screws, wood screws, and other connectors.

E. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.

F. Corrosion Protection: Coat concealed surfaces of aluminum that will come into contact with grout, concrete, masonry, wood, or dissimilar metals with the following:

1. Cast Aluminum: Heavy coat of bituminous paint.
2. Extruded Aluminum: Two coats of clear lacquer.

3.2 INSTALLING MISCELLANEOUS FRAMING AND SUPPORTS

A. General: Install framing and supports to comply with requirements of items being supported, including manufacturers' written instructions and requirements indicated on Shop Drawings.

3.3 ADJUSTING AND CLEANING

A. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas. Paint uncoated and abraded areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

1. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.

B. Touchup Painting: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint are specified in Division 09

painting Sections.

C. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780.

END OF SECTION

SECTION 06 10 00

ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:
   1. Rooftop equipment bases and support curbs.
   2. Wood nailers.

1.2 SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

   1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
   2. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

B. Fastener Patterns: Full-size templates for fasteners in exposed framing.

C. Research/Evaluation Reports: For the following, showing compliance with building code in effect for Project:

   1. Wood-preservative-treated wood.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

A. Preservative Treatment by Pressure Process: AWPA C2.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat all rough carpentry, unless otherwise indicated.

2.3 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Nailers.
2. Rooftop equipment bases and support curbs.
3. Cants.

B. For concealed boards, provide lumber with 19 percent maximum moisture content and the following species and grades:

1. Mixed southern pine, No. 3 grade; SPIB.

C. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.

D. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

2.4 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.

B. Nails, Brads, and Staples: ASTM F 1667.

C. Power-Driven Fasteners: NES NER-272.

D. Wood Screws: ASME B 18.6.1.

E. Lag Bolts: ASME B 18.2.1.

F. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.

G. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.

1. Material: Carbon-steel components, zinc plated to comply with ASTM B633,Class Fe/Zn 5.
2. Material: Stainless steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2.

2.5 MISCELLANEOUS MATERIALS

A. Flexible Flashing: Self-adhesive, rubberized-asphalt compound, bonded to a high-density, polyethylene film to produce an overall thickness of not less than 0.025 inch.

B. Water-Repellent Preservative: NWWDA-tested and -accepted formulation containing 3-iodo-2propynyl butyl carbamate, combined with an insecticide containing chloropyrifos as its active ingredient.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

B. Provide blocking and framing as indicated and as required to support facing materials, fixtures,specialty items, and trim.

C. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

D. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

1. Use inorganic boron for items that are continuously protected from liquid water.
2. Use copper naphthenate for items not continuously protected from liquid water.

E. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.

F. Use common wire nails, unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood; do not countersink nail heads, unless otherwise indicated.

G. For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced, and with adjacent rows staggered.

3.2 WOOD BLOCKING, AND NAILER INSTALLATION

A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated.

3.3 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA registered label.

END OF SECTION 06 10 00

SECTION 07 11 13

BITUMINOUS DAMPPROOFING

PART1 GENERAL

1.1 SUMMARY

A. Section includes:

1. Cold applied bituminous dampproofing on exterior surface of interior of stone cavity wall system.

1.2 SUBMITTALS

A. Submit manufacturer's literature and application instructions.

B. Submit certification that product meets requirements for VOC content.

1.3 QUALITY ASSURANCE

A. Obtain primary materials from a single manufacturer. Obtain secondary materials from supplier recommended by primary supplier.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver products in original containers, marked with manufacturer's name, brand name, and type of material. Follow manufacturer's recommendations for protection and storage. Do not store below 40 degrees F.

1.5 FIELD CONDITIONS

A. Apply dampproofing only when ambient temperature is above 40 degrees F, ground is not frozen, and no muddy or rainy condition exists.

PART 2 PRODUCTS

2.1 COLD-APPLIED ASPHALT EMULSION DAMPROOFING

A. Trowel Grade: Emulsified asphalt mastic, prepared with mineral- colloid emulsifying agents and containing fibers other than asbestos, complying with ASTM D 1227, Type H.

B. Semimastic Grade: Emulsified asphalt semimastic, prepared with mineral-colloid emulsifying agents and containing fibers other than asbestos, complying with ASTM D 1227, Type II.

C. Spray Grade: Emulsified asphalt, prepared with mineral-colloid emulsifying agents without fibrous reinforcement, complying with ASTM D 1227, Type III.

2.2 MISCELLEANOUS MATERIALS

A. Primer: Comply with ASTM D41.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify concrete surfaces and masonry work is ready to receive dampproofing. Do not proceed with work until defective surfaces have been corrected.

3.2 PREPARATION

A. At concrete: Knock off projections; point holes, joints, and cracks flush with mortar. Brush surfaces clean of all foreign matter.

B. At Masonry: Knock off excess mortar, point flush holes, joints and voids in masonry surface. Tightly grout penetrations. Parge irregular surfaces to a smooth steel trowel finish.

C. Protect adjacent work by masking or other suitable means.

D. Primer: Apply primer as recommended by prime material manufacture.

3 .3 INSTALLATION, GENERAL

A. Comply with manufacturer's recommendations except where more stringent requirements are indicated and where Project conditions require extra precautions to ensure satisfactory performance of work.

B. Application: Apply dampproofing to the following surfaces.

1. Exterior surface of backup wall for stone veneer and brick veneer.

3 .4 APPLICATION

A. Spray grade: Brush or spray coat at not less than 1.5 gallons per 100 square feet, to obtain a uniform, dry-film thickness of not less than 15 mils. Apply in 2 coats, if necessary, to obtain required thickness; allowing for complete drying between coats.

B. Semimastic grade: Brush or spray coat at not less than 5 gallons per 100 square feet, to obtain a uniform, dry-film thickness of not less than 30 mils.

C. Trowel grade: Trowel a coat of at not less than 7 gallons per 100 square feet, to obtain a uniform, dry-film thickness of not less than 60 mils.

END OF SECTION

SECTION 07 22 00

ROOF AND DECK INSULATION

PART I GENERAL

1.1 SUMMARY

A. Work Includes:

1. Roof and deck insulation.
2. Cover Board

1.2 SUBMITTALS

A. Manufacturer's Data: Manufacturer's literature, specifications, and installation instructions for insulation board and adhesive

B. Shop drawings: Show layout including joints, crickets and tapered areas.

C. Samples: Four (4) 12-inch lengths of insulation board.

1 .3 PRODUCT HANDLING

A. Protect roofing insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

1 .4 FIELD CONDITIONS

A. Do not lay insulation when temperature is below 45 degrees F.

B. Do not begin work until roof sheathing construction is complete and nailer strips, vents, deck joints, drains, and other projections are installed.

C. Do not lay more insulation than can be completely covered with roofing materials the same day.

PART 2 PRODUCTS

2.1 INSULATION BOARD

A. Polyisocyanurate ASTM C1289, Type I (H)

1. Apache Products Co.
2. Atlas Roofing Corporation.
3. Celotex Corp. (The).
4. GAF Building Materials Corp.
5. NRG Barriers, Inc.

B. Provide preformed, tapered insulation boards where indicated for sloping to drain. Fabricate with 1/4 inch per foot taper.:

C. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to 1/2" inch per foot taper.

2.2 FASTENERS

A. Factory coated steel fasteners and metal or plastic plates designed for fastening roof insulation to substrate and acceptable to manufacture.

2.3 COVER BOARD

A. Fiberglass-Mat Faced Gypsum Roof Board with the following properties:

1. Thickness: 1 /2 inch.
2. Width: 4 feet.
3. Length: [4 feet] [8 feet].
4. Weight: 1.95 psf.
5. Surfacing: Fiberglass mat.
6. Flexural Strength, Parallel (ASTM C473): 80 lbf, minimum.
7. Flute Span (ASTM E661): 5 inches.
8. Permeance (ASTM E96): Not more than 35 perms.
9. R-Value (ASTM C518): Not less than 0.56.
10. Water Absorption (ASTM C1177): Less than 10 percent of weight.

2.4 CANTS

A. Perlite board, complying with ASTM C 728.

2.5 NAILING STRIPS

A. As shown. Treat wood by pressure process approved by AWPA. Creosote or other oil based preservatives are not acceptable.

PART 3 EXECUTION

3.1EXAMINATION

A. Examine substrates, areas, and conditions under which roofing will be applied, with Installer present, for compliance with requirements.

B. Deck shall be firm, dry, clean, and properly graded to all outlets. Secure a wood strip of same thickness as insulation adjoining all eaves to act as a stop for insulation.

3.2 PREPARATION

1. Clean substrate of dust, debris, and other substances detrimental to installation according to manufacturer's written instructions. Remove sharp projections.

3 .3 INSULATION INSTALLATION

A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.

B. Comply with roofing system manufacturer's written instructions for installing roofing insulation.

C. Install tapered insulation under area of roofing to conform to slopes indicated and to Shop Drawings.

D. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.

E. Install one or more layers of insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2 inches or greater, install required thickness in 2 or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.

F. Trim surface of insulation where necessary at roof drains so completed surface is flush with ring of drain.

G. Install insulation with long joints of insulation in continuous straight lines with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch with insulation.

1. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.

H. Attached Insulation: Prime surface of concrete deck with asphalt primer at a rate of 3/4 gal./100 sq. ft., unless a greater weight is required by roofing system manufacturer, and allow primer to dry. Set each layer of insulation in a solid mopping of hot roofing asphalt.

I. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Loosely butt cover boards together and fasten to roof deck according to roofing system manufacturer's written instructions. Tape joints of cover boards.

END OF SECTION

SECTION 07 52 16

(SBS) STYRENE-BUTADIENE-STYRENE MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cold Applied Styrene-butadiene-styrene (SBS) modified bituminous membrane roofing.

1.2 DEFINITIONS

A. Roofing Terminology: Refer to ASTM D 1079 and glossary of NRCA's The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.

1.3 PERFORMANCE REQUIREMENTS

A. General Performance: Installed membrane roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Membrane roofing and base flashings shall remain watertight.

B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by membrane roofing manufacturer based on testing and field experience.

C. Retain first paragraph below if membrane roofing system is to be designed to withstand uplift pressure established by ASCE/SEI7. Revise design uplift pressures if local building code requirements are more stringent than ASCE/SEI 7. Retain with "FM Approvals Listing" Paragraph if criteria of both ASCE/SEI 7 and FM Approvals apply. Indicate dimensions of corners, perimeter, and field of roof on Drawings.

D. Roofing System Design: Provide membrane roofing system that is identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist uplift pressure calculated according to ASCE/SEI 7.

1. Fire/Windstorm Classification: Class 1A-90.

2. Hail Resistance Rating: SH.

E. Energy Performance: Provide roofing system with initial Solar Reflectance Index not less than 78 when calculated according to ASTM E 1980 based on testing identical products by a qualified testing agency.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work.

1. Base flashings and membrane terminations.

C. Qualification Data: For qualified Installer.

D. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.

1. Submit evidence of complying with performance requirements.

E. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for components of membrane roofing system.

F. Research/Evaluation Reports: For components of membrane roofing system, from the ICC-ES

G. Maintenance Data: For roofing system to include in maintenance manuals.

H. Warranties: Sample of special warranties.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for membrane roofing system identical to that used for this Project.

B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by membrane roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

C. Source Limitations: Obtain components including roof insulation fasteners for membrane roofing system from same manufacturer as membrane roofing or approved by membrane roofing manufacturer.

D. Preinstallation Roofing Conference: Conduct conference at Project site.

1. Meet with Contractor, Owner Owner's insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, deck Installer, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.

2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.

3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

4. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.

5. Review structural loading limitations of roof deck during and after roofing.

6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.

7. Review governing regulations and requirements for insurance and certificates if applicable.

6. Review temporary protection requirements for roofing system during and after installation.

7. Review roof observation and repair procedures after roofing installation.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.

1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.7 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.8 WARRANTY

A. Special Warranty: Manufacturer's standard or customized form, without monetary limitation, in which manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period.

1. Special warranty includes membrane roofing, base flashings, roof insulation, fasteners, cover boards, substrate board, roofing accessories, and other components of membrane roofing system.

2. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SBS-MODIFIED ASPHALT-SHEET MATERIALS

A. SBS-Modified Bituminous Membrane Roofing:

1. Basis-of-Design: POWERply HE, manufactured by Tremco Incorporated, An RPM Company, located in Beachwood, Ohio. Other available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Duro-Last
   b. Firestone Building Products.
   c. Henry Company.
   d. Johns Manville.
   e. Soprema.

2.2 BASE-SHEET MATERIALS

A. Membrane Ply Sheet: ASTM D 6146, Type I, grade S, nonperforated, asphalt-impregnated and -coated, dusted with fine mineral surfacing on both sides.

1. Use: Base ply of cold process built-up and modified bituminous membrane roofing.

2. Reinforcing: Composite nonwoven polyester mat.

3. Physical Properties: Provide reinforced ply sheet materials with the following properties:
   a. Thickness: 2.4 mm, minimum.
   b. Breaking Strength, Minimum: 78 pounds of force per inch in MD (Machine Direction); 80 pounds of force per inch in XMD (Cross Machine Direction).
   c. Elongation: 55 percent minimum, MD and XMD.
   d. Low Temperature Flexibility: -15 deg F.

2.3 CAP SHEET

A. Granule-Surface Roofing Membrane Cap Sheet: ASTM D 6162, Grade G, Type I or II, SBS modified asphalt sheet (reinforced with a combination of polyester fabric and glass fibers); granular surfaced; suitable for application method specified, and as follows:

1. Granule Color: White.

2. Thickness: 150 mils minimum.

3. Tensile Strength: 148 lbf/in, minimum, of force per inch at 0 deg. F in MD (Machine Direction); 122 lbf/in minimum, of force per inch at 0 deg. F in XMD (Cross Machine Direction).

4. Elongation: At 0 deg. F, 58 percent minimum MD (Machine Direction); 55 percent XMD (Cross Machine Direction).

5. Tear Strength: 150 lbf , minimum, XMD (Cross Machine Direction) at 77 deg. F.

2.4 BASE FLASHING SHEET MATERIALS

A. Backer Sheet: ASTM D 6162, Grade S, Type I or H, SBS-modified asphalt sheet (reinforced with a combination of polyester fabric and glass fibers); smooth surfaced; suitable for application method specified.

1. Physical Properties: Provide reinforced ply sheet materials with the following properties:
   a. Thickness: 1.45 mm, minimum.
   b. Breaking Strength: 220 pounds, minimum, of force per inch in MD; 235 pounds, minimum, of force per inch in XMD.
   c. Elongation: 6.5 percent MD/XMD.
   d. Tear Strength: 345 pounds, minimum, force per inch in MD; 330 pounds, minimum, force per inch in XMD.
   e. Mass of Unsaturated Polyester/Glass/Polyester Mat: Minimum 3.5 pounds per 100 feet.
   f. Asphalt: 10 pounds per 100 feet, minimum.

B. Granule-Surfaced Flashing Sheet: ASTM D 6162, Grade G, Type I or II, SBS-modified asphalt sheet (reinforced with a combination of polyester fabric and glass fibers); granular surfaced; suitable for application method specified, and as follows:
   1. Granule Color: White.

   2. Physical Properties: Provide reinforced ply sheet materials with the following properties:
      a. Thickness, 4.0 mm minimum.
      b. Tensile Strength: 640 lbs, minimum, force per inch in MD at 0 deg. F.; 710 lbs, minimum, force per inch in XMD at 0 deg. F.
      c. Elongation: 4.9 percent MD, minimum of 0 deg. F.; 4.3 percent, minimum, XMD at 0 deg. F.
      d. Low Temperature Flexibility: Minus 25 deg. F.
      e. Asbestos Content: Zero.

2.5 AUXILIARY ROOFING MEMBRANE MATERIALS

A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing membrane.

   1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.

B. Cold-Applied Adhesive: Roofing system manufacturer's standard, one- or two-part, asbestos free, cold-applied adhesive specially formulated for compatibility and use with roofing membrane and base flashings.

   1. Physical Properties:
      a. Asbestos Content: Zero.
         Viscosity at 77 deg. F: 6,000 to 200,000 cps; ASTM D 2196.
         Density at 77 deg. F: 8.7- 8.9 pounds per gallon; ASTM D 6511. Nonvolatile Content: 50 percent; ASTM D 6511.
         VOC's: Less than 250 g/L; ASTM D 6511.
         Flash Point: Greater than 100 deg. F.; ASTM D 93.

C. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required by roofing system manufacturer for application.

D. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion resistance provisions in FM Approvals 4470, designed for fastening roofing membrane components to substrate; tested by manufacturer for required pullout strength, and acceptable to roofing system manufacturer.

E. Metal Flashing Sheet: As specified in Section 07 62 00 "Sheet Metal Flashing and Trim."

F. Miscellaneous Accessories: Provide those recommended by roofing system manufacturer.

PART 3 - EXECUTION3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with the following requirements and other conditions affecting performance of roofing system:

   1. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.

2. Verify that concrete-curing compounds that will impair adhesion of roofing components to roof deck have been removed.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.

B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.

3.3 ROOFING MEMBRANE INSTALLATION, GENERAL

A. Install roofing membrane system according to roofing system manufacturer's written instructions and applicable recommendations in ARMA/NRCA's "Quality Control Guidelines for the Application of Polymer Modified Bitumen Roofing" and as follows:

1. Deck Type: C (concrete or non-nailable).

2. Adhering Method: L (cold-applied adhesive).

3. Base Sheet: One

4. Number of Glass-Fiber Base-Ply Sheets: One >.

5. Number of SBS-Modified Asphalt Sheets: One.

6. Surfacing Type: M (mineral-granule-surfaced cap sheet).

B. Start installation of roofing membrane in presence of roofing system manufacturer's technical
personnel.

C. Cooperate with testing agencies engaged or required to perform services for installing roofing system.

D. Coordinate installation of roofing system so insulation and other components of the roofing membrane system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is forecast.

1. At end of each day's work, provide tie-offs to cover exposed roofing membrane sheets and insulation with a course of coated felt set in roofing cement or hot roofing asphalt, with joints and edges sealed.

2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.

3. Remove and discard temporary seals before beginning work on adjoining roofing.

E. Substrate-Joint Penetrations: Prevent roofing asphalt and adhesives from penetrating substrate joints, entering building, or damaging roofing system components or adjacent building construction.

3.4 BASE-SHEET INSTALLATION

A. Install lapped base-sheet course, extending sheet over and terminating beyond cants. Attach base sheet as follows:

1. Adhere to substrate in a uniform coating of cold-applied adhesive.

3.5 SBS-MODIFIED BITUMINOUS MEMBRANE INSTALLATION

A. Install modified bituminous roofing membrane sheet and cap sheet according to roofing manufacturer's written instructions, starting at low point of roofing system. Extend roofing membrane sheets over and terminate beyond cants, installing as follows:

1. Adhere to substrate in cold-applied adhesive.

2. Unroll roofing membrane sheets and allow them to relax for minimum time period required by manufacturer.

B. Laps: Accurately align roofing membrane sheets, without stretching, and maintain uniform side and end laps. Stagger end laps. Completely bond and seal laps, leaving no voids.

1. Repair tears and voids in laps and lapped seams not completely sealed.

C. Install roofing membrane sheets so side and end laps shed water.

3.6 FLASHING AND STRIPPING INSTALLATION

A. Install base flashing over cant strips and other sloped and vertical surfaces, at roof edges, and at penetrations through roof; secure to substrates according to roofing system manufacturer's written instructions, and as follows:

1. Prime substrates with asphalt primer if required by roofing system manufacturer.

2. Backer Sheet Application: Adhere backer sheet to substrate in cold-applied adhesive at rate required by roofing system manufacturer.

3. Flashing Sheet Application: Adhere flashing sheet to substrate in cold-applied adhesive at rate required by roofing system manufacturer.

B. Mechanically fasten top of base flashing securely at terminations and perimeter of roofing.

C. Install roofing membrane cap-sheet stripping where metal flanges and edgings are set on membrane roofing according to roofing system manufacturer's written instructions.

3.7 FIELD QUALITY CONTROL

A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.

1. Notify Owner and Architect 48 hours in advance of date and time of inspection.

B. Roofing system will be considered defective if it does not pass tests and inspections.

1. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

3.8 PROTECTING AND CLEANING

A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to COTR and FAA.

B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION

SECTION 07 62 00

SHEET METAL FLASHING AND TRIM

PART1 GENERAL

1.1SUMMARY

A. Section includes:

1. Flashings
2. Gutters
3. Downspouts
4. Reglets

1.2 SUBMITTALS

A. Shop Drawings: Show sheet metal items, including joints, types and locations of fasteners, and special shapes.

B. Samples: Four (4) 12-inch by 12-inch samples of each sheet metal material. Show pattern, finish, color, and thickness.

1.3 QUALITY ASSURANCE

A. Follow recommendations of SMACNA, Architectural Sheet Metal manual, latest edition.

1.4 WARRANTY

A. Guarantee materials and workmanship for two years.

B. Provide manufacturer's 20 yr guarantee for PVDF coating.

PART 2 PRODUCTS

2.1 SHEET METAL

A. Aluminum: ASTM B209-84, alloy 3003, temper H14, finish AA-C22A41.

2.2 PVFD FINISH

A. 70 percent by weight Polyvinylidene fluoride coating, applied by the manufacturer on a continuous coil coating line, with a top side dry film thickness of 0.70 to 0.90 mil over 0.25 to 0.35 mil prime coat, to provide a total dry film thickness of 0.95 to 1.25 mil. Bottom side shall be coated with primer with a dry film thickness of 0.25 mil.

2.3 FASTENERS

A. Nails: FS FF-N-105B. Flathead, wire barbed, or slating type.

B. Screws: FS FF-S-107C, self-tapping sheet metal type.
C. Rivets: Material, type, and size as recommended by sheet metal manufacturer.

2.4 SEALANT

A. FS TT-S-227E, Type H, Class A, or FS TT-S-230A, Type H, or manufacturer's standard, one part polysulfide, silicone, or polyurethane type.

2.5 BITUMINOUS PLASTIC CEMENT

A. ASTM D4586, Type I.

2.6 PRIMER COATING

A. ASTM D41.

2.7 ASPHALTIC COATING COMPOUND

A. ASTM D4479, Type II.

2.8 UNDERLAYMENT

A. ASTM D226, asphalt saturated, unperforated roofing felt, 15 or 30-pound type.

2.9 SLIP SHEET

A. Building paper, FS UU-B-790A, Type I, Grade A, Style Ib.

PART 3 EXECUTION

3.1 INSPECTION

A. Installation Standards: Install flashing and sheet metalwork as indicated and in accordance with the approved Shop Drawings and SMACNA Architectural Sheet Metal Manual.

B. Determine that surfaces are smooth and clean to the extent required for sheet metal work. Verify that reglets, nailers, cants, and blocking to receive sheet metal are installed and free of concrete and soil.

C. Before commencing work, verify shapes and dimensions of surface to be covered. Do not begin work until grounds, nailers and roof projections are installed.

3 .2 FABRICATION

A. Cleats: Continuous: minimum width, 2 inches. Same material and thickness as sheet metal

B. Reglets: Manufacturer's standard or same material and thickness as sheet metal. Shop formed corners and joint connectors.

C. Downspouts: Fabricate longitudinal joints with double corner or flat lock seams. Equip with removable basket type strainers.

D. Conductor Heads: Fabricate with riveted, lap soldered or welded or flat lock seams.

3 .3 INSTALLATION

A. General: Install work watertight, without waves, warps, buckles, fastening stresses, or distortion. Allow for expansion and contraction. Angle bottom edges of exposed vertical surfaces to form drips. Hem exposed edges.

B. Seams:

1. Common Lock Seams: Finished width, 5/8 inch. Four ply loose lock.
2. Flat Lock Seams: Finished width, 3/4 inch. Four ply flat lock, malleted tight. Sweat full with solder.
3. Drive Lock Seams: Fold back abutting edges; cover joint with 1-1/8-inch-wide loose drive cap.
4. Single Corner Seams: Finished width, 5/8 inch. Three ply loose lock. Lap corners and solder.
5. Double Corner Seams: Finished width, 5/8 inch. Four ply double lock.
6. Lap Seams: Finished width, 7/8 inch.
7. Cover Plate Seams: Space abutting sheets 1/2 inch apart plus fastener thickness. Cover joint with 4-inch-wide backup with cover plate set in sealant. Match plates to flashing profile. Secure plates to substrate with screws installed through open space between flashing sheets.
8. Standing Seams: Finished height, 1 inch. Five-ply double lock or three-ply single lock seams may be used.
9. Capped Standing Seams: Finished height, 1 inch. Cover seams with 1-1/2-inch-wide loose drive cap.
10. S-Lock Seams: Form 1-1/2-inch-wide S-shaped seam on one edge of flashing sheet for concealed fastening.
11. Riveted Lap Seams: Finished width, 1 inch. Rivet 18 inches on center.

C. Cleats: Continuous. Secure to substrate with fasteners spaced 1 foot on center.

D. Reglets: Install in accurate locations, straight, in-line, and with leak-proof joints.

E. Sealant Installation: Apply 1/4-inch diameter bead, centered on full length of joint.

F. Bituminous Plastic Cement: Trowel 1/8-inch thick.

G. Dissimilar Metals:

1. Painting: Back paint items as indicated with primer to 1.5-mil dry film thickness. Back paint zinc alloy with asphalt coating compound to 3-mil dry film thickness. Apply 7.5-mil dry film thickness asphalt coating compound to each contacting metal face of dissimilar metals.

H. Flashings:

1. Roof Counter flashing: Overlap base flashing 4 inches minimum. Install bottom edge tight against base flashing. Lap seam vertical joints 3 inches minimum. Apply sealant. Miter, lap seam, and close corner joints with solder or sealant.

I. Hung Gutters: Seal lap joints 1 inch minimum and rivet. Locate outer edge 1/2 inch minimum lower than back edge. Stiffen outer edge with hemmed return. Loose lock back edge lock to continuous cleats. Extend cleat 4 inches under roofing and secure to substrate. Secure end caps with 1 inch minimum width flanges riveted and sealed to gutter. Secure gutter with matching metal straps spaced 4 feet apart maximum, or secure gutter by fastening with bracket shaped to match gutter profile spaced 4 feet apart maximum. Locate and shape outlet thimble to fit downspouts. Size thimble 1/8 inch less than downspout and extend 2 inches below gutter soffit. If thimble flanges at downspouts

are more than 12 inches in girth, rivet and sea thimble flanges to gutter bottom. Install expansion joints at 30 feet on center maximum.

J. Downspouts: Telescope upper sections into lower sections 1-1/2 inches minimum. If downspouts are more than 12 inches in girth, rivet and seal. Elbow downspouts away from buildings at open downspout ends. Attach to wall with 1-1/4-inch-wide straps matching downspout material, and 1 gauge heavier. Locate straps at downspout tops, bottoms, horizontal joints, and at 10-foot maximum centers. Secure straps to wall with fastener heads covered with strap tabs.

K. Downspout Strainers: Fit tightly in each drain outlet.

L. Roof Penetration Flashing: For base flashing, extend flange onto roof 6 inches minimum away from penetration. At shingle roof, extend roof flange 8 inches minimum away from penetration. Extend flange upward around penetration to at least 8 inches above roofing felts. Fold back upper and side roof flange edges 1/2 inch. Solder lap joints. For counter flashing, overlap base flashing 1 inch minimum with storm collar sloped away from penetration. Secure to penetration with draw band and sealant, rivet and sealant, solder, or by welding.

M. Through-Wall Flashing: Where shown, start flashing 1/2 inch behind exposed face of wall and extend through wall. Lap seam joints and seal with sealant. Seal around penetrations through flashing.

N. Splash Pans: Install under each downspout discharging onto roof. Set pan in bituminous plastic cement.

3.4 REPAIRING

A. Repair or replace damaged work.

3.5 CLEANING

A. Leave work clean and free of stains and debris.

END OF SECTION

SECTION 07 92 00

JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes sealants for the following locations:

1. Exterior joints in vertical surfaces.

   a. Joints between stone and masonry panels.
   b. Joints at cavity termination bars.
   c. Other joints as indicated.

1.2 SYSTEM PERFORMANCE REQUIREMENTS

B. Provide elastomeric joint sealants that have been produced and installed to establish and to maintain watertight and airtight continuous seals without causing staining or deterioration of joint substrates.

C. Provide joint sealants for interior applications that have been produced and installed to establish and maintain airtight continuous seals that are water resistant and cause no staining or deterioration of joint substrates.

D. Provide products that will not produce off-gassing of VOC's after product is installed and properly cured.

1.3 SUBMITTALS

A. Product data from manufacturers for each joint sealant product required.

1. Certification by joint sealant manufacturer that sealants plus the primers and cleaners required for sealant installation comply with local regulations controlling use of volatile organic compounds.
2. Provide Material Safety Data Sheets (MSDS) for the following:

   a. Elastomeric joint sealants
   b. Primer.
   c. Cleaners for nonporous surfaces.

B. Samples for initial selection purposes in form of manufacturer's standard bead samples, consisting of strips of actual products showing full range of colors available, for each product exposed to view.

C. Certificates from manufacturers of joint sealants attesting that their products comply with specification requirements and are suitable for the use indicated.

D. Qualification data complying with requirements specified in "Quality Assurance" article. Include list of completed projects with project names addresses, names of architects and owners, plus other information specified.

E. Compatibility and adhesion test reports from elastomeric sealant manufacturer indicating that materials forming joint substrates and joint sealant backings have been tested for compatibility and adhesion with joint sealants. Include sealant manufacturer's interpretation of test results relative to sealant performance and recommendations for primers and substrate preparation needed to obtain adhesion.

F. Product test reports for each type of joint sealants indicated, evidencing compliance with requirements specified.

G. Preconstruction field test reports, indicating which products and joint preparation methods demonstrate acceptable adhesion to joint substrates.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced Installer who has completed joint sealant applications similar in material, design, and extent to that indicated for Project that have resulted in construction with a record of successful in-service performance.

B. Single Source Responsibility for Joint Sealant Materials: Obtain joint sealants and joint backer materials from a single manufacturer for each different product required.

C. Conduct Testing: Provide comprehensive test data for each type of joint sealant based on tests conducted by a qualified independent testing laboratory on current product formulations within a 24-month period preceding date of Contractor's submittal of test results.

1. Test elastomeric sealants for compliance with requirements specified by reference to ASTM C920. Include test results for hardness, stain resistance, adhesion and cohesion under cyclic movement (per ASTM C719), low-temperature flexibility, modulus of elasticity at 100 percent strain, effects of heat aging, and effects of accelerated weathering.
2. Include test results performed on joint sealants after they have cured for 1 year.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration period for use, pot life, curing time, and mixing instructions for multi-component materials.

B. Store and handle materials in compliance with manufacturer's recommendations to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.

1.6 PROJECT CONDITIONS

A. Environmental Conditions: Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside the limits permitted by joint sealant manufacturer or below 40 deg F.
2. When joint substrates are wet.

B. Joint Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than allowed by joint sealant manufacturer for application indicated.

C. Joint Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with their adhesion are removed from joint substrates.

1.7 SEQUENCING AND SCHEDULING

A. Sequence installation of joint sealants to occur not less than 21 nor more than 30 calendar days after completion of waterproofing, unless otherwise indicated.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.

B. Colors: Provide selections made by Architect from manufacturer's full range of standard colors for typical applications.

C. Provide VOC-compliant sealants. Products must not produce off-gassing after proper curing is achieved.

2.2 MANUFACTURERS

A. Subject to compliance with requirements, provide products by one of the following:

1. Dow Chemical Company
2. Pecora Corporation
3. Sonneborn
4. Tremco

2.3 ELASTOMERIC JOINT SEALANTS

A. Elastomeric Sealant Standard: Provide manufacturer's standard chemically curing elastomeric sealants that comply with ASTM C 920.

B. Multi-component, tintable, neutral-curing silicone as follows:

Uses / Locations: Expansion and control joints in concrete and masonry; perimeter caulking of windows and doors; conventional glazing. Adheres to metal, aluminum, galvanized steel, concrete and masonry. For exterior applications.

1. VOC Content: 0 g/L or 0 lbs. Per gallon less water and exempt solvents.
2. Type: Type M (ASTM C 920).
3. Grade NS (ASTM C 920).
4. Class: 50 (ASTM C 920).
5. Use: NT, G, A, 0 and M.
6. Shore A Hardness: 15 (ASTM D 2240)
7. Joint Movement Capability (after 14 cure days): Extension: 50%. Compression: 50%.

8. Tear Resistance: 25p1i (ASTM D 624).
9. Tensile Strength: 110psi (ASTM D 412).
10. Basis of Design:
    a. Spectrum 4-TS by Tremco.

C. One part, multi-purpose polyurethane sealant: Uses / Locations: Roof flashing and membranes.

1. Type: Type S (ASTM C 920).
2. Grade NS (ASTM C 920).
3. Class: 100/150 (ASTM C 920).
4. Use: NT, M, A and O.
5. Shore A Hardness: 20 (ASTM C 661).
6. Movement Capability: 25 (ASTM C 719).
7. Extrusion Rate: 5 ml/min.
8. Use Related to Exposure: NT (non-traffic).
9. Basis of Design:
    a. Vulkem 921 by Tremco

2.4 JOINT SEALANT BACKING

A. General: Provide sealant backings of material and type that are non-staining; are compatible with joint substrates, sealants, primers and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing. Provide backing and filler material by sealant manufacturer to greatest extent possible, or products recommended by sealant manufacturer.

B. Plastic Foam Joint Fillers: Preformed, compressible, resilient, non-staining, non-waxing, nonextruding strips of flexible plastic foam of material indicated below and of size, shape, and density to control sealant depth and otherwise contribute to producing optimum sealant performance:

1. Open-cell polyurethane foam.
2. Closed-cell polyethylene foam, nonabsorbent to liquid water and gas, non-outgassing in unruptured state.

C. Bond-Breaker Tape: Polyethylene tape or other plastic tape as recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.5 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming in any way joint substrates and adjacent nonporous surfaces, and formulated to promote optimum adhesion of sealants with joint substrates.

C. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint sealant performance. Do not proceed with installation of joint sealants until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with recommendations of joint sealant manufacturer and the following requirements:

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
2. Clean concrete, masonry, unglazed surfaces of ceramic tile, and similar porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air.
3. Clean metal, glass and other nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

B. Joint Priming: Prime joint substrates where indicated or where recommended by joint sealant manufacturer based on preconstruction joint sealant-substrate tests. Apply primer to comply with joint sealant manufacturer's recommendations. Confine primers to areas of joint sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint sealant manufacturer's printed installation instructions applicable to products and applications indicated, except where more stringent requirements apply.

B. Sealant Installation Standard: Comply with recommendations of ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Installation of Sealant Backings: Install sealant backings to comply with the following requirements:
1. Install joint fillers of type indicated to provide support of sealants during application and at position required to produce the cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

a. Do not leave gaps between ends of joint fillers.
b. Do not stretch, twist, puncture, or tear joint fillers.
c. Remove absorbent joint fillers that have become wet prior to sealant application and replace with dry material.

2. Install bond breaker tape between sealants where backer rods are not used between sealants and joint fillers or back of joints.

D. Installation of Sealants: Install sealants by proven techniques that result in sealants directly contacting and fully wetting joint substrates, completely filling recesses provided for each joint configuration, and providing uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability. Install sealants at the same time sealant backings are installed.

E. Tooling of Non-sag Sealants: Immediately after sealant application and prior to time skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated, to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint. Do not use tooling agents that discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.

1. Provide concave joint configuration per Figure 5A in ASTM C1193, unless otherwise indicated.
2. Use masking tape to protect adjacent surfaces of recessed tooled joints.

3.4 CLEANING

A. Clean off excess sealants or sealant smears adjacent to joints as work progresses by methods and with cleaning materials approved by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes so that they are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so that and installations with repaired areas are indistinguishable from original work.

END OF SECTION

EXHIBIT I Drawings for Carnes Justice Center Building Wall Panel Evaluation Part II

G001 Cover Sheet
G002 Abbreviations, Notes & Symbols

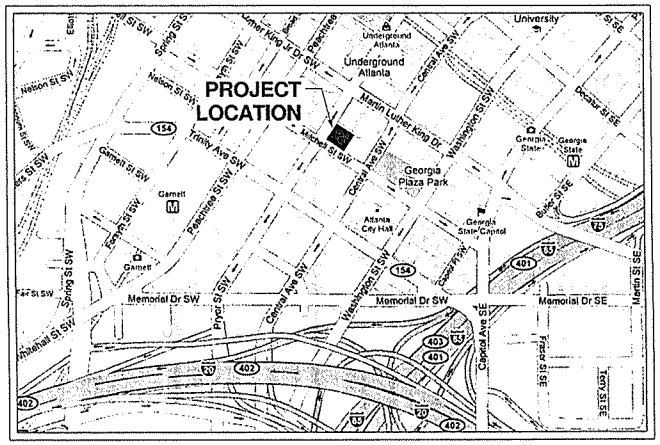
A101 Existing Roof Plan
A102 New Roof Plan
A201 Phase 2-Exterior Elevations
A202 Phase 2-Exterior Elevations
A301 Phase 2-Wall Sections-Main Building
A501 Phase 2-Brick Details
A502 Phase 2-Stone Details

S000 Structural General Notes
S102 Exterior Elevations-Phase II
S103 Exterior Elevations-Phase II
S201 Structural Details- Phase II

CARNES JUSTICE CENTER BUILDING
WALL PANEL EVALUATION PART II

FULTON COUNTY PROJECT NO.: FAE200902697

160 PRYOR STREET
ATLANTA, GA 30303



DRAWING INDEX

G001	COVER SHEET
G002	ABBREVIATIONS, NOTES AND SYMBOLS
A101	EXISTING ROOF PLAN
A102	NEW ROOF PLAN
A201	PHASE 2 - EXTERIOR ELEVATIONS
A202	PHASE 2 - EXTERIOR ELEVATIONS
A301	PHASE 2 - WALL SECTIONS - MAIN BUILDING
A501	PHASE 2 - BRICK DETAILS
A502	PHASE 2 - STONE DETAILS
S000	STRUCTURAL GENERAL NOTES
S102	EXTERIOR ELEVATIONS - PHASE 2
S103	EXTERIOR ELEVATIONS - PHASE 2
S201	STRUCTURAL DETAILS - PHASE 2

PHASE 2: MAIN BUILDING FACADE

FULTON COUNTY

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CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697
160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

Drawn By	JEG
Checked By	MRB
Date	09/01/2010
Project No.	09023.00

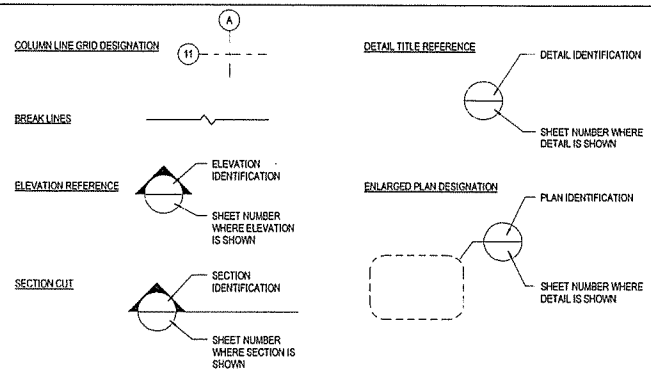
SHEET TITLE
COVER SHEET

SHEET NUMBER
G001

STANDARD ABBREVIATIONS

A	
A.C.	AIR CONDITIONED
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
A.H.U.	AIR HANDLING UNIT
ALT.	ALTERNATE
ALUM.	ALUMINUM
AMP., A.	AMPERES
A.O.	ACCESS OPENING
APPROX.	APPROXIMATELY
ARCH.	ARCHITECTURAL
A.T.	ASPHALT TILE
B	
BAL.	BALANCE
BD.	BOARD
BET.	BETWEEN
BLDG.	BUILDING
BLK.	BLANK
BM.	BEAM
BOT.	BOTTOM
BRG.	BEARING
B.T.U.H.	BRITISH THERMO UNIT/HOUR
C	
CAB.	CABINET
CAP.	CAPACITY
C/B	CIRCUIT BREAKER
C.D.	CEILING DIFFUSER
CEM.	CEMENT
CER.	CERAMIC
CFM	CUBIC FEET/MINUTE
CIRC.	CIRCULATING
C.J.	CONTROL JOINT
CKD	CHECKERED
CKT.	CIRCUIT
℄	CENTER LINE
CLG.	CEILING
CL.	CLOSET
CLR	CLEARANCE
CMT	CERAMIC TILE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL.	COLUMN
CONC.	CONCRETE
COND.	CONDENSATE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR. JT.	CONTRACTION JOINT
CPT	CARPET
C.T.	CERAMIC TILE
C.T.B.	CERAMIC TILE BASE
C. TO C.	CENTER TO CENTER
D	
DET.	DETAIL
DF	DRINKING FOUNTAIN
DIA.	DIAMETER
DIFF.	DIFFUSER
DIM.	DIMENSION
DISC.	DISCONNECT
D.J.	DUMMY JOINT
DN.	DOWN
DR.	DRAIN
D.S.	DOWN SPOUT
DWG.(S)	DRAWING(S)
E	
EA.	EACH
E.C.	EMPTY CONDUIT
E.F.	EXHAUST FAN
EL.	ELEVATION
ELEC.	ELECTRIC
EQ.	EQUAL
EQP.	EQUIPMENT
EXH.	EXHAUST
EXP. JT.	EXPANSION JOINT
EXT.	EXTERIOR
EXIST.	EXISTING
EX.	EXISTING
EXP	EXPOSED
F.A.	FIRE ALARM
F.C.	FLEXIBLE CONNECTION
F.D.	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FIN.	FINISHED
FLR.	FLOOR
FR'G	FRAMING
FT.	FOOT, FEET
FTG.	FOOTING
G	
GA.	GAGE
GAL.	GALLON
GALV.	GALVANIZED
G.F.E.	GOVERNMENT FURNISHED EQUIPMENT
GL.	GLASS
GND.	GROUND
GOV'T	GOVERNMENT
G.P.H.	GALLONS/HOUR
G.P.M.	GALLONS/MINUTE
GR.	GRILLE
GYP BD.	GYPSUM BOARD
GWB	GYPSUM WALLBOARD
H	
H.	HIGH
H.B.	HOSE BIBB
H.C.	HOLLOW CORE
HT.	HEIGHT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR.	HOUR
HTG.	HEATING
HTR.	HEATER
H.&V.	HEATING AND VENTILATING
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HW.	HARDWARE
HYD.	HYDRANT
I	
I.D.	INSIDE DIAMETER
I.E.	INVERT ELEVATION
IN.	INCHES
INCAND.	INCANDESCENT
INSUL.	INSULATION
INT.	INTERIOR
J	
JAN.	JANITOR
JCT.	JUNCTION
JT.	JOINT
K	
KVA	KILOVOLT AMPERE
KW	KILOWATT
L	
LB.,#	POUND
LG.	LONG
L.P.	LIGHTING PANEL
LTG.	LIGHTING
M	
M.	MOTOR
MAINT.	MAINTENANCE
MAS.	MASONRY
MAX.	MAXIMUM
M.D.P.	MAIN DISTRIBUTION PANEL
MECH.	MECHANICAL
MET.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
M.T.	METAL THRESHOLD
MTD.	MOUNTED
MTG.	MOUNTING
M.V.	MECHANICAL VENTILATION
M.G.T.	MATT GLAZE TILE
N	
N.A.	NOT APPLICABLE
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
O	
O.A.	OUTDOOR AIR
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.H.	OVERHEAD
	OPPOSITE HAND
OL.	OVERLOAD
OPG	OPENING
OPP.	OPPOSITE
O.S.D.	OPEN SIGHT DRAIN
P	
P.	PAPER
PART.	PARTITION
PERI.	PERIMETER
PLAM.	PLASTIC LAMINATE
PLBG.	PLUMBING
PLYWD.	PLYWOOD
PNT	PAINT
PREFABR.	PREFABRICATED
PRESS.	PRESSURE
PSF	POUNDS/SQUARE FOOT
PSI	POUNDS/SQUARE INCH
PSIG	POUNDS/SQUARE INCH GAGE
PT.	POINT
PTD.	PAINTED
Q	
QTR.	QUARTER
QUAN.	QUANTITY
R	
R.	RISER
RA	RETURN AIR
RAD.	RADIUS
RB	RUBBER BASE
RD.	ROUND
REC'D.	RECESSED
RECIRC.	RECIRCULATING
RECP.	RECEPTACLE
REFRIG	REFRIGERATOR
REG.	REGISTER
REINF.	REINFORCING
REQ'D.	REQUIRED
RET.	RETURN
R.G.	RETURN GRILLE
RM.	ROOM
R.P.M.	REVOLUTION PER MINUTE
RES FL	
S	
S.	SUPPLY
SA	SUPPLY AIR
SCH.	SCHEDULE
SCWD	SOLID CORE WOOD DOOR
SECT.	SECTION
SERV.	SERVICE
SHT.	SHEET
S.J.	SLIP JOINT
SPEC.	SPECIFICATIONS
SQ. FT.	SQUARE FEET
ST.	STEEL
STN	STAIN
STOR.	STORAGE
STRUC.	STRUCTURAL
SUSP.	SUSPENDED
SW.	SWITCH
T	
T	TOP
TEL.	TELEPHONE
TEMP.	TEMPERATURE
THK.	THICKNESS
THD.	THRESHOLD
TOIL.	TOILET
TYP.	TYPICAL
TZ	TERRAZZO
V	
V.	VOLT
VAT	VINYL ASBESTOS TILE
VCT	VINYL COMPOSITION TILE
VEG.	VEGETABLE
VERT.	VERTICAL
VTR	VENT THRU ROOF
VWC	VINYL WALL COVERING
W	
W.	WATT
W/	WITH
W/O	WITHOUT
WD.	WOOD
W.D.	WINDOW DIMENSION
WF	WIDE FLANGE
W.G.	WATER GAGE
WP.	WEATHERPROOF
WTR.	WATER
W.W.F.	WELDED WIRE FABRIC

GENERAL LEGEND



GENERAL DEMOLITION NOTES

1. THE INTENT OF THE DEMOLITION NOTES AND DRAWINGS IS TO INDICATE THE SCOPE OF DEMOLITION WORK REQUIRED FOR INSTALLATION OF NEW WORK INDICATED ON THE DRAWINGS. THE DEMOLITION DRAWINGS ARE BASED ON THE ORIGINAL CONSTRUCTION DOCUMENTS AND MAY NOT REFLECT THE ACTUAL EXISTING CONDITIONS. THE CONTRACTOR SHALL COORDINATE DEMOLITION WORK REQUIRED WITH BOTH THE NEW WORK INDICATED AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED.

2. DEMOLITION WORK SHALL BE EXECUTED IN CONFORMANCE WITH ALL CODES AND ORDINANCES AS SET FORTH BY ALL GOVERNING AUTHORITIES.

3. THE CONTRACTOR SHALL COORDINATE SHUTDOWN OF ANY MECHANICAL OR ELECTRICAL SYSTEMS REQUIRED AS PART OF THE DEMOLITION WORK WITH THE OWNER PRIOR TO INTERRUPTION OF SERVICES.

4. ALL MATERIALS TO BE REUSED SHALL BE PROTECTED AND STORED IN A SAFE, DRY PLACE.

5. ENVIRONMENTAL INVESTIGATION AND ABATEMENT, IF ANY, SHALL BE PROVIDED BY THE OWNER.

6. PROTECT EXISTING STRUCTURE AND ADJACENT STRUCTURES AND WALKWAYS THROUGHOUT DEMOLITION AND CONSTRUCTION.

7. MAINTAIN FACILITY IN WATERTIGHT CONDITION WHERE APPLICABLE. PROVIDE TEMPORARY WEATHER PROTECTION AS NECESSARY.

8. ENSURE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION ASSEMBLIES TO REMAIN. RETURN EXISTING ELEMENTS AND SURFACES TO REMAIN TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITION OPERATIONS.

9. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON SITE. REMOVE RESULTING MATERIALS FROM PROPERTY AND PROVIDE APPROPRIATE DISPOSAL IN COMPLIANCE WITH ALL LOCAL AND FEDERAL REGULATIONS AND GUIDELINES.

10. PROTECT ALL EXITS AND EXIT AREAS DURING DEMOLITION AND CONSTRUCTION. ALERT ARCHITECT OF ANY CONFLICTS WITH CONSTRUCTION STAGING.

11. PROTECT ALL EXISTING ACTIVE ELECTRICAL PANELS AND EQUIPMENT FROM DAMAGE AND INFILTRATION OF DUST AND/OR WATER DURING THE DEMOLITION PROCESS. PROTECT ALL EXISTING ACTIVE PLUMBING AND ELECTRICAL CONDUIT AND LIGHTING FIXTURES TO REMAIN FROM DAMAGE DUE TO DEMOLITION WORK.

12. CONFIRM ACTIVE OR INACTIVE STATUS OF ANY AND ALL PLUMBING, CONDUIT AND HVAC DUCTWORK ADJACENT TO AND AFFECTED BY DEMOLITION PRIOR TO COMMENCING WORK. REMOVE AND/OR CUT BACK AND CAP ALL EXISTING MECHANICAL, PLUMBING AND ELECTRICAL SYSTEMS NOT UTILIZED IN THE NEW CONSTRUCTION. APPROPRIATE QUALIFIED TRADE TO REROUTE ANY ACTIVE LINES (CONDUIT, PLUMBING, DUCTWORK, ETC.) ATTACHED OR ADJACENT TO WALLS, FLOORS OR CEILINGS BEING DEMOLISHED OR DIRECTLY AFFECTED BY DEMOLITION WORK.

13. SAND AND REPAINT ANY BARE AND/OR RUSTED PATCHES ON STRUCTURAL STEEL MEMBERS IN AREAS AFFECTED BY DEMOLITION AND NEW WORK.

14. REMOVE EXISTING CONSTRUCTION AS INDICATED. TYPICAL WALL REMOVAL INCLUDES MECHANICAL, PLUMBING, COMMUNICATIONS, AND ELECTRICAL SYSTEMS CONTAINED THEREIN. PATCH HOLES IN EXISTING FLOORS OR WALLS TO REMAIN TO MEET ORIGINAL FIRE PROTECTION AND STRUCTURAL REQUIREMENTS. PATCH ADJOINING WALLS, FLOOR AND DECK. PREPARE SURFACES TO RECEIVE NEW FINISHES PER PLANS.

GENERAL NOTES:

1. THE DESIGN OF THIS PROJECT IS BASED UPON INFORMATION PROVIDED BY THE OWNER THROUGH EXISTING DRAWINGS, AS-BUILT DRAWINGS AND ON-SITE OBSERVATION. VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING WORK.

STATE OF GEORGIA
JOSEPH GRIO
No. 1-25-10

FULTON COUNTY

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7000 CENTRAL PARKWAY SUITE 1475
ATLANTA, GA 30328
(678) 393 1532

CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697

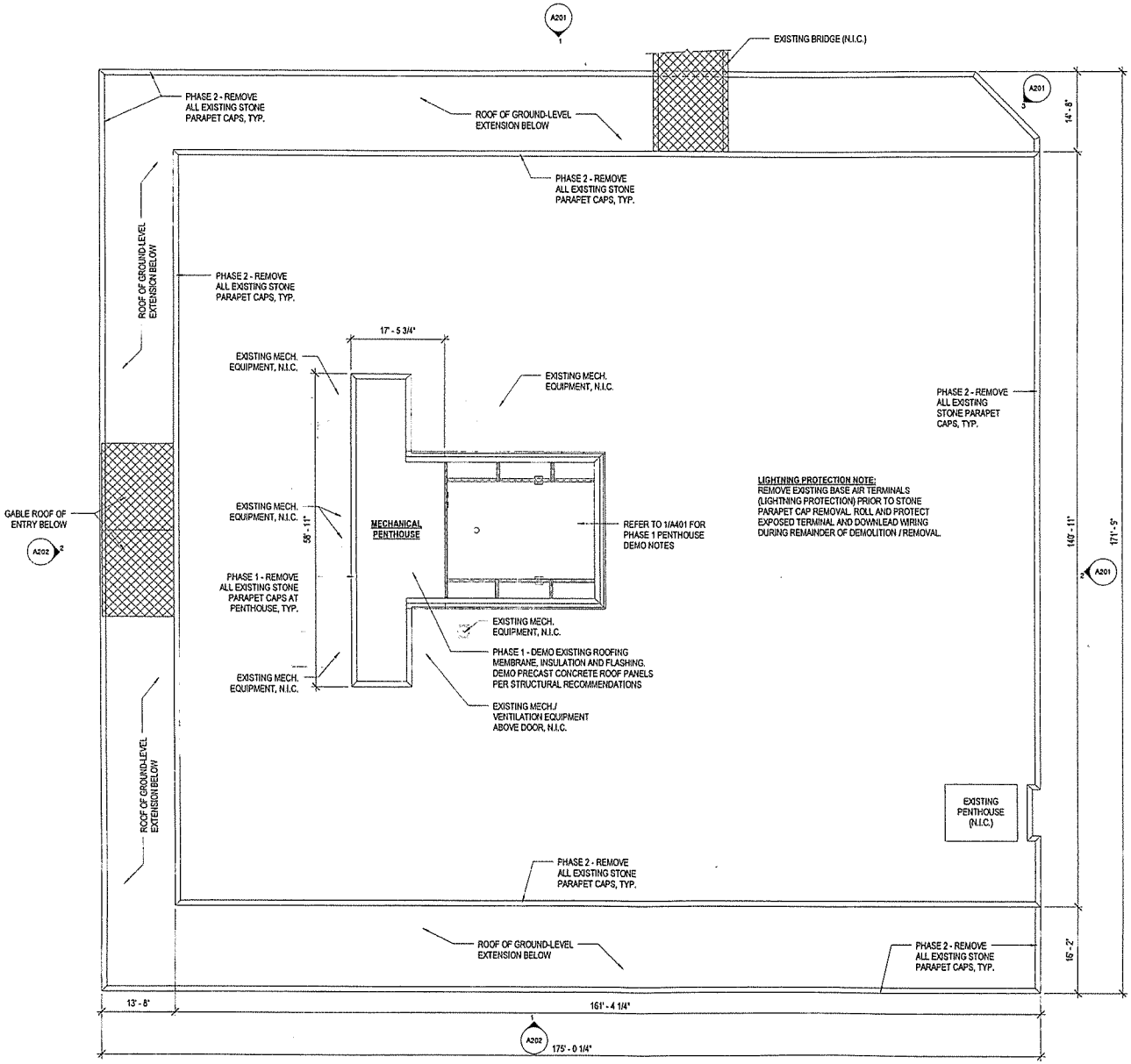
160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

Drawn By	JEG
Checked By	MRB
Date	03/01/2010
Project No.	09023.00

SHEET TITLE
ABBREVIATIONS, NOTES AND SYMBOLS

SHEET NUMBER
G002



1 A101 BUILDING PLAN
1" = 10'-0"

STATE OF GEORGIA
JOSEPH E. HARTRAMPF
GEORGIA REG. NO. 15

FULTON COUNTY

HARTRAMPF
7000 CENTRAL PARKWAY SUITE 1475
ATLANTA, GA 30328
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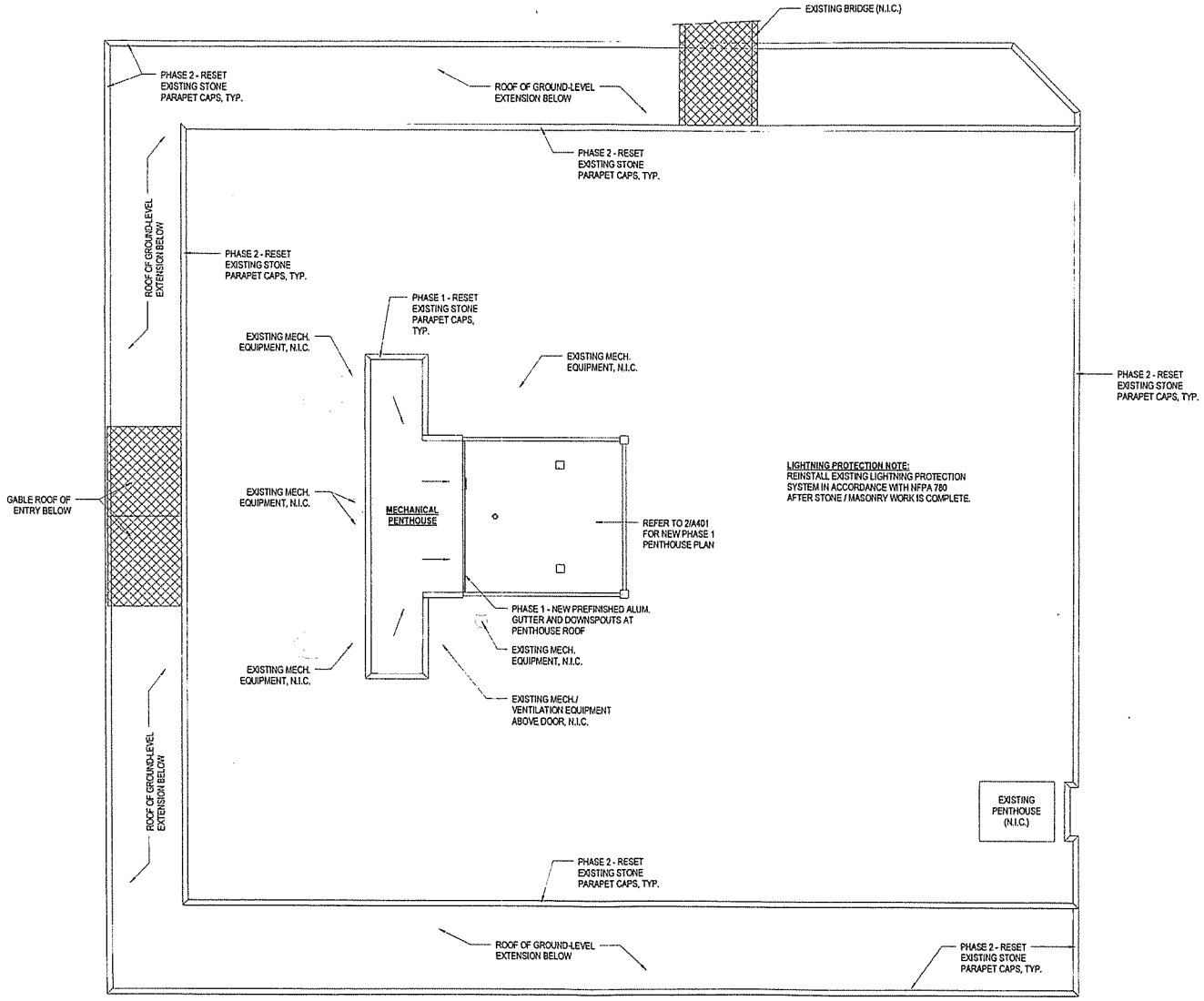
CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697
160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

Drawn By	JEG
Checked By	MRB
Date	03/01/2010
Project No.	09023.00

SHEET TITLE
EXISTING ROOF PLAN

SHEET NUMBER
A101



1 / A102 NEW ROOF PLAN
1" = 10'-0"

STATE OF GEORGIA
JOSHUA E. REED
COUNTY

FULTON COUNTY

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CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697

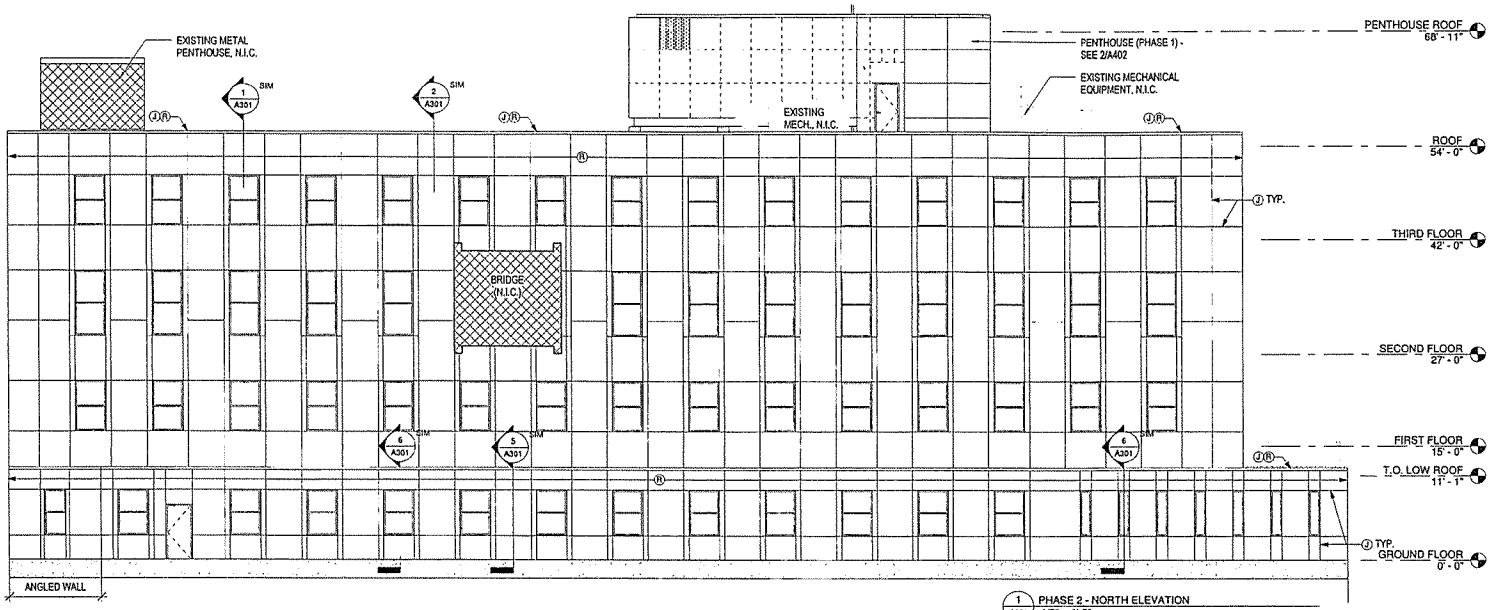
160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

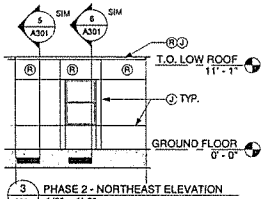
Drawn By	JEG
Checked By	MRB
Date	09/01/2010
Project No.	09023.00

SHEET TITLE
NEW ROOF PLAN

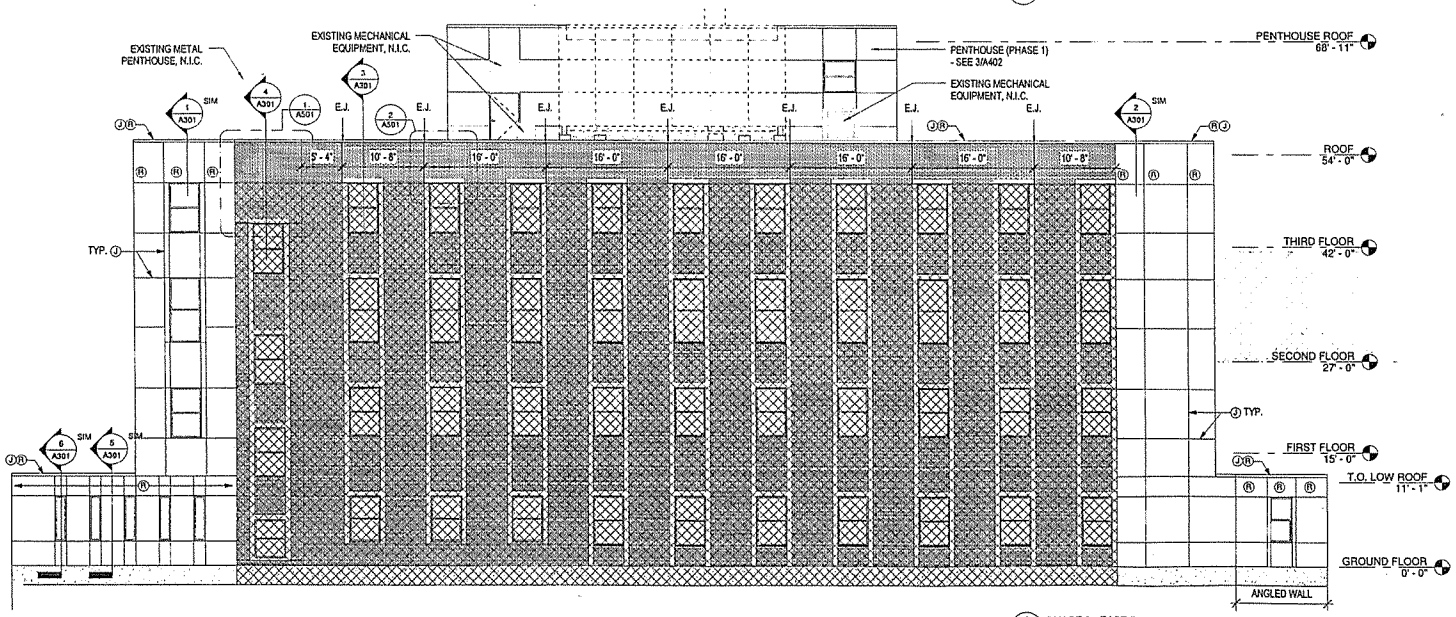
SHEET NUMBER
A102



1 A201 PHASE 2 - NORTH ELEVATION
1/8" = 1'-0"



3 A201 PHASE 2 - NORTHEAST ELEVATION
1/8" = 1'-0"



2 A201 PHASE 2 - EAST ELEVATION
1/8" = 1'-0"

LEGEND

INDICATES AREA NOT WITHIN INITIAL SCOPE OF WORK

PHASES 1 AND 2:

(R) REMOVE PANEL/COPING AND RESET AFTER REPLACING SUPPORT STEEL, FLASHING & WATERPROOFING

(J) CUT AND CLEAN OUT ALL EXISTING PANEL AND STONE COPING JOINT SEALANT MATERIALS AND REPLACE WITH NEW CONTINUOUS BACKER ROD AND JOINT SEALANT. TEST FOR LEAD AT STONE COPING JOINTS AND ASBESTOS MATERIALS AT ALL JOINTS PRIOR TO REMOVAL AND PERFORM ANY ABATEMENT PROCEDURES NECESSARY IN ACCORDANCE WITH SPECIFICATIONS.

PHASE 1 ONLY:

(S) REMOVE PANEL/COPING, CLEAN AND STORE OFF-SITE - NOT FOR RE-USE

(M) SAW-CUT EXISTING PANEL/COPING IN PLACE

STATE OF GEORGIA
MARK R. BRIDGES
REGISTERED ARCHITECT

FULTON COUNTY

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ATLANTA, GEORGIA 30328
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CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697

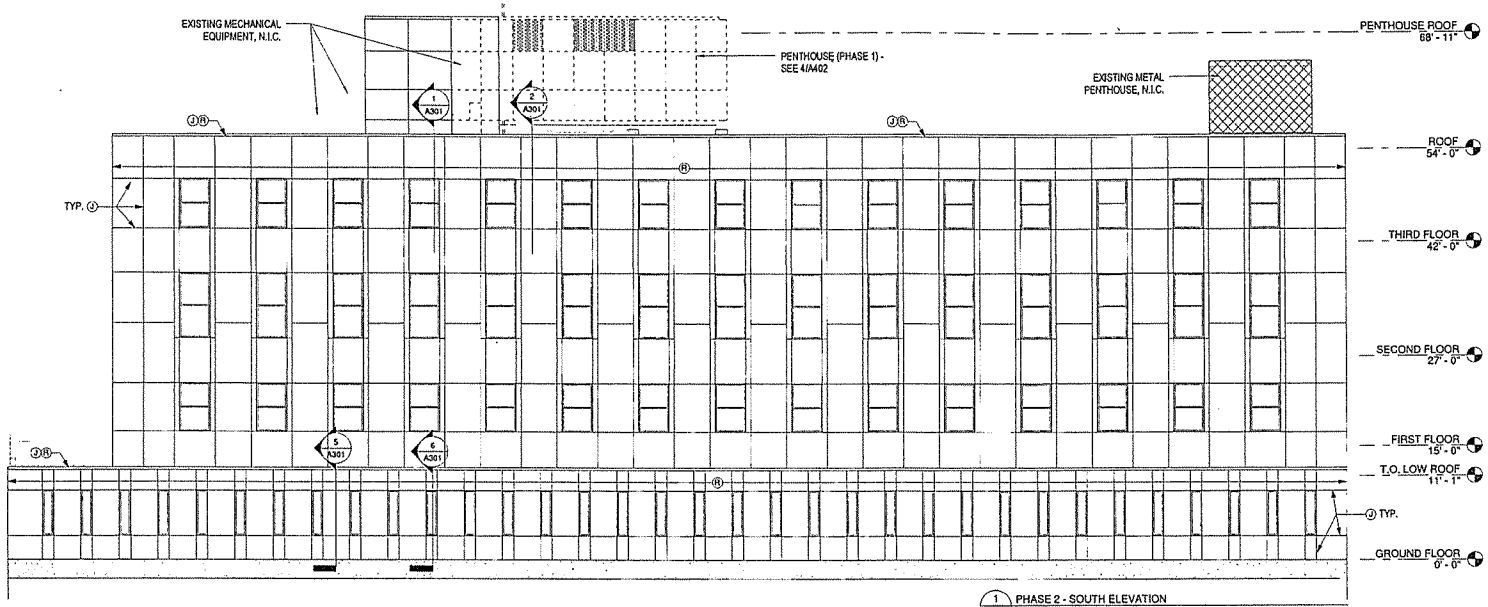
160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

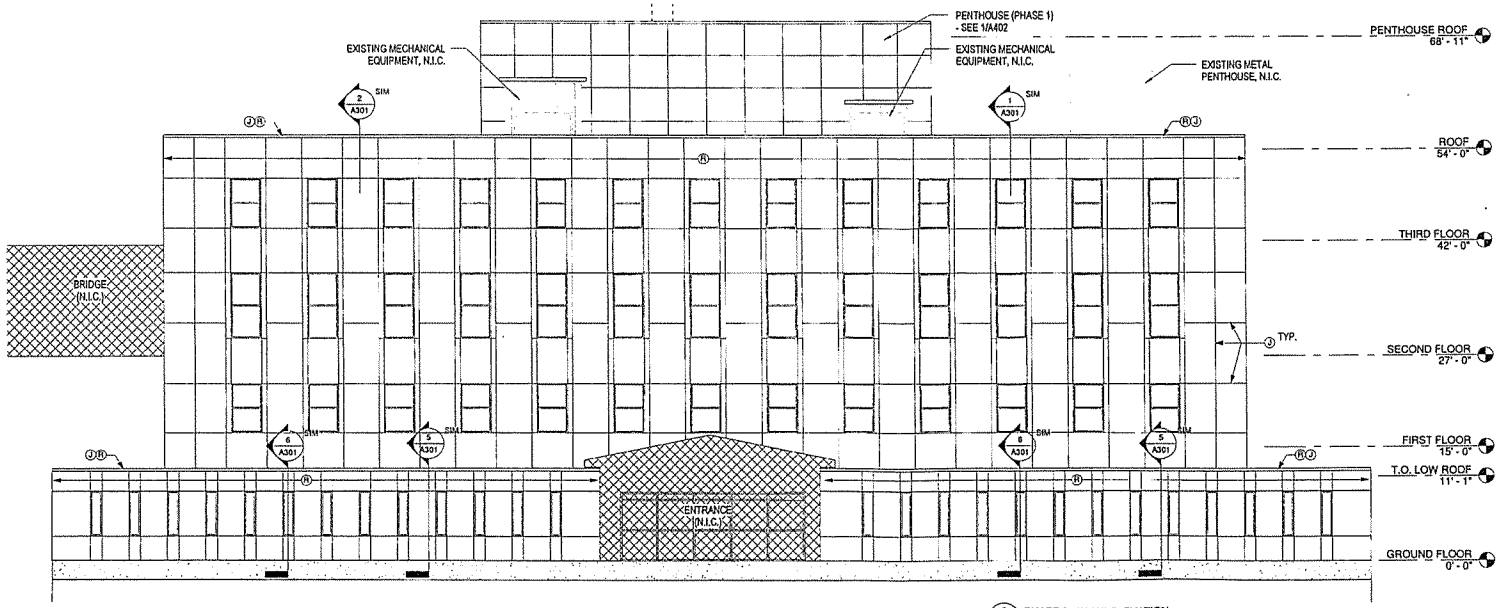
Drawn By	JEG
Checked By	MRB
Date	03/01/2010
Project No.	09023.00

SHEET TITLE
PHASE 2 - EXTERIOR ELEVATIONS

SHEET NUMBER
A201



1 A202 PHASE 2 - SOUTH ELEVATION 1/8" = 1'-0"



2 A202 PHASE 2 - WEST ELEVATION 1/8" = 1'-0"

LEGEND

INDICATES AREA NOT WITHIN INITIAL SCOPE OF WORK

PHASES 1 AND 2:

(R) REMOVE PANEL/COPING AND RESET AFTER REPLACING SUPPORT STEEL, FLASHING & WATERPROOFING

(J) CUT AND CLEAN OUT ALL EXISTING PANEL AND STONE COPING JOINT SEALANT MATERIALS AND REPLACE WITH NEW CONTINUOUS BACKER ROD AND JOINT SEALANT. TEST FOR LEAD AT STONE COPING JOINTS AND ASBESTOS MATERIALS AT ALL JOINTS PRIOR TO REMOVAL AND PERFORM ANY ABATEMENT PROCEDURES NECESSARY IN ACCORDANCE WITH SPECIFICATIONS.

PHASE 1 ONLY:

(S) REMOVE PANEL/COPING, CLEAN AND STORE OFF-SITE - NOT FOR RE-USE

(M) SAW-CUT EXISTING PANEL/COPING IN PLACE

STATE OF GEORGIA
JOHNNIA ERO CRUSE
REGISTERED ARCHITECT

FULTON COUNTY

HARTRAMPF
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(678) 320-1888

CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697

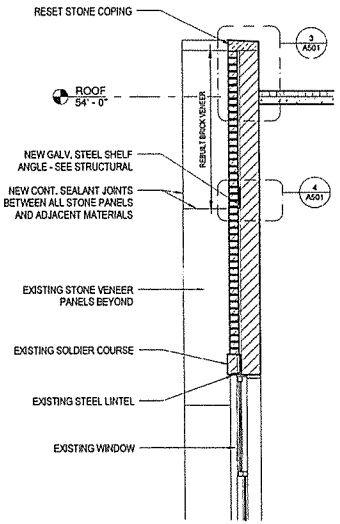
160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

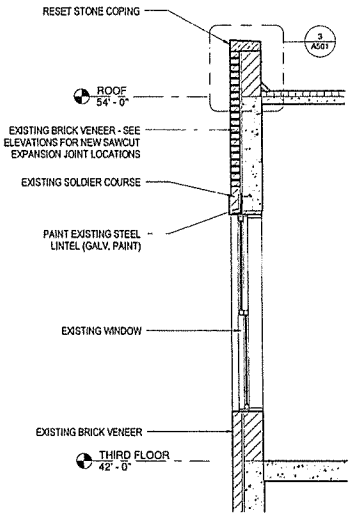
Drawn By	JEG
Checked By	MBB
Date	09/01/2010
Project No.	09023.00

SHEET TITLE
PHASE 2 - EXTERIOR ELEVATIONS

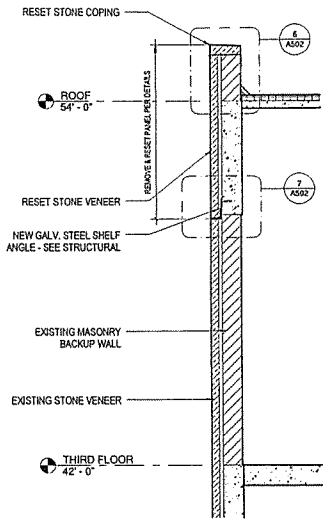
SHEET NUMBER
A202



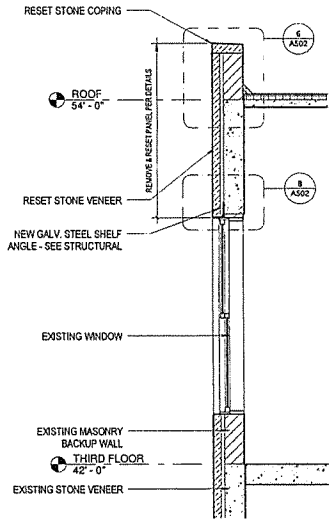
4 A301 PHASE 2 - EXTERIOR WALL AT STAIR 1/2" = 1'-0"



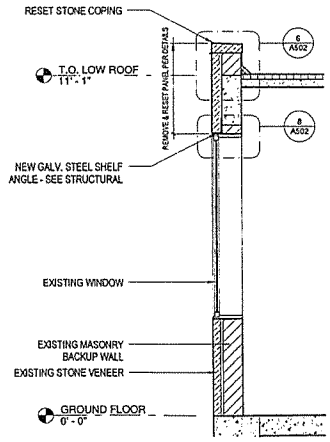
3 A301 PHASE 2 - EXTERIOR WALL AT BRICK 1/2" = 1'-0"



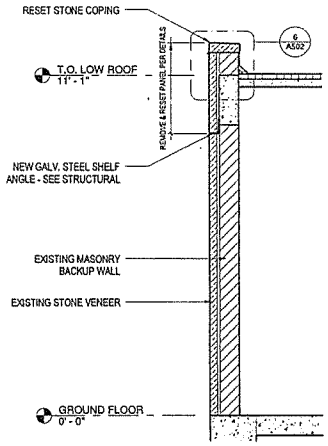
2 A301 PHASE 2 - EXTERIOR WALL AT PANELS 1/2" = 1'-0"



1 A301 PHASE 2 - EXTERIOR WALL AT WINDOW 1/2" = 1'-0"



6 A301 PHASE 2 - EXTERIOR LOW WALL AT WINDOW 1/2" = 1'-0"



5 A301 PHASE 2 - EXTERIOR LOW WALL AT PANELS 1/2" = 1'-0"

STATE OF GEORGIA
JOSEPH ERIC GRIDACH

FULTON COUNTY

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CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697

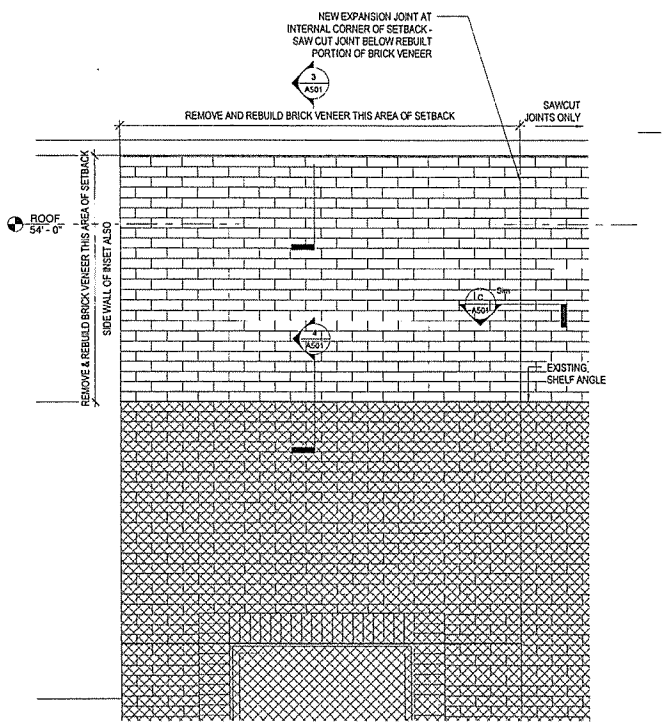
160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

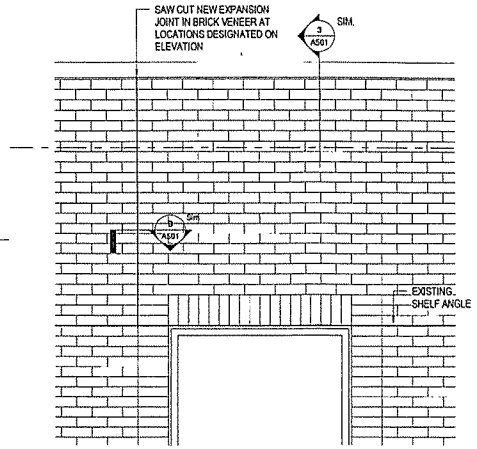
Drawn By	JEG
Checked By	MRB
Date	09/01/2010
Project No.	09023.00

SHEET TITLE
PHASE 2 - WALL SECTIONS - MAIN BUILDING

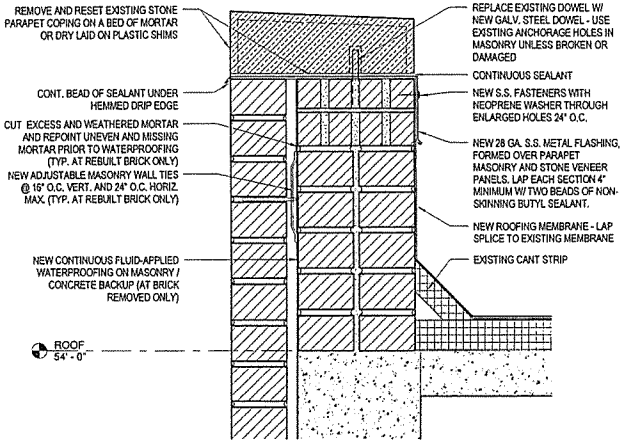
SHEET NUMBER
A301



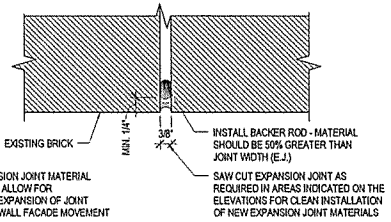
1 A501 PHASE 2 - BRICK @ STAIR INSET
3/4" = 1'-0"



2 A501 PHASE 2 - NEW EXPANSION JOINT
3/4" = 1'-0"

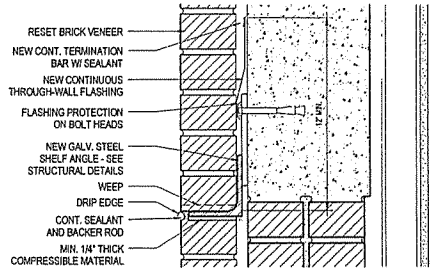


3 A501 PHASE 2 - PARAPET - BRICK
3" = 1'-0"

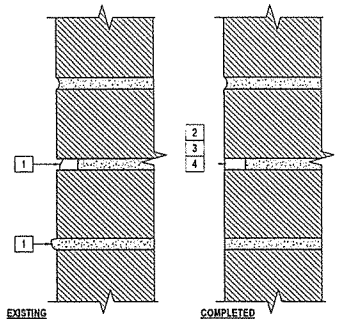


NOTE: ALL EXPANSION JOINT MATERIAL MUST BE ABLE TO ALLOW FOR COMPRESSION & EXPANSION OF JOINT SIZE AS WELL AS WALL FACADE MOVEMENT

B A501 PHASE 2 - BRICK EXPANSION JOINT
6" = 1'-0"



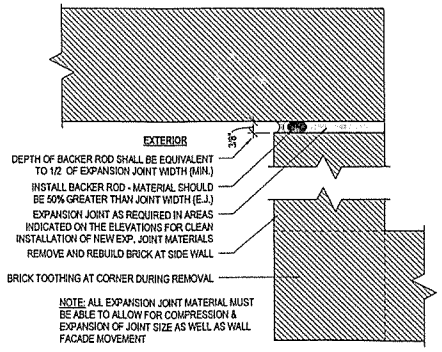
4 A501 PHASE 2 - EXP. JOINT AT NEW SHELF ANGLE
3" = 1'-0"



REPOINTING BRICK MASONRY BACKUP WALL

1. THE OLD MORTAR SHALL BE CUT OUT CLEANLY TO A UNIFORM DEPTH OF 1/2" OR UNTIL SOUND MORTAR IS REACHED. FLUSH ALL DUST AND DEBRIS FROM JOINTS WITH WATER AND ALLOW TO DRY TO A SLIGHTLY DAMP CONDITION.
2. REPOINTING MORTAR SHOULD BE TYPE 'N' MORTAR. WATER FOR REPOINTING MORTAR SHALL BE CLEAN AND POTABLE AND BE FREE OF DELETERIOUS AMOUNT OF ACIDS, ALKALINES OR ORGANIC MATERIALS.
3. PRE-HYDRATE THE MORTAR BY MIXING INGREDIENTS TOGETHER DRY, THEN ADDING ONLY ENOUGH CLEAN WATER TO RETAIN SHAPE WHEN FORMED INTO A BALL. THE MORTAR SHOULD STAND IN THIS DAMPENED CONDITION FOR 1 TO 1-1/2 HOURS, THEN ADD MORE WATER TO BRING THE MORTAR TO A WORKABLE DRY CONSISTENCY.
4. JOINTS TO BE REPOINTED SHOULD BE DAMPENED, BUT NOT WET. PACK MORTAR TIGHTLY INTO THE JOINTS IN THIN LAYERS (1/4" MAXIMUM). EACH LAYER SHOULD BE "THUMBPRINT HARD" PRIOR TO APPLYING THE NEXT LAYER.
5. TOOL JOINTS WHEN TOP LAYER IS "THUMBPRINT HARD" TO FLUSH SURFACE SUITABLE FOR WATERPROOFING APPLICATION.

A A501 PHASES 2 - REPOINTING PROCEDURE
6" = 1'-0"



NOTE: ALL EXPANSION JOINT MATERIAL MUST BE ABLE TO ALLOW FOR COMPRESSION & EXPANSION OF JOINT SIZE AS WELL AS WALL FACADE MOVEMENT

C A501 PHASE 2 - BRICK EXPANSION JOINT AT CORNER
6" = 1'-0"

STATE OF GEORGIA
JOSHUA ERIC GIDDAH
DATE 2-25-11
CERTIFICATE NO. 0000000
REGISTERED ARCHITECT

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CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697

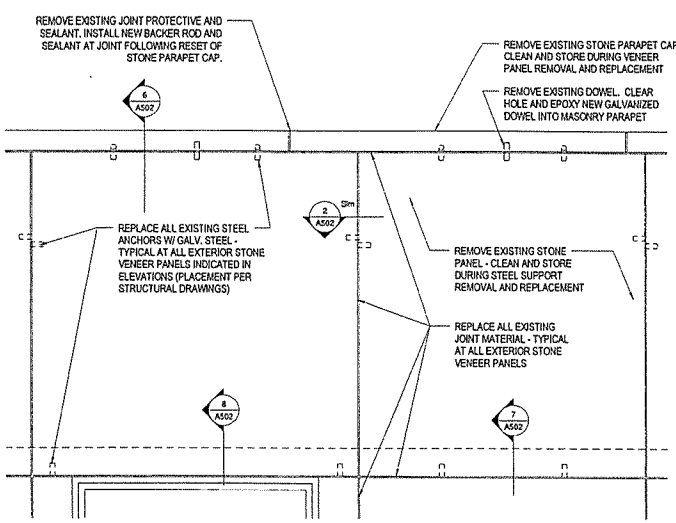
160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

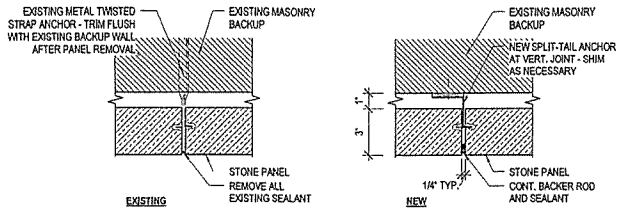
Drawn By	JEG
Checked By	MRB
Date	09/01/2010
Project No.	09023.00

SHEET TITLE
PHASE 2 - BRICK DETAILS

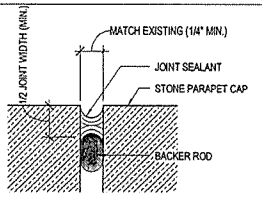
SHEET NUMBER
A501



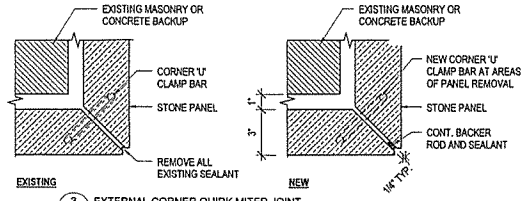
1 A502 PHASE 2 - PANEL SUPPORT REPLACEMENT
1" = 1'-0"



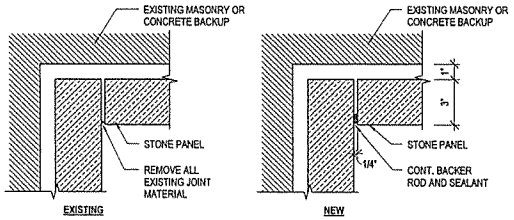
2 A502 VERTICAL PANEL JOINT
3" = 1'-0"



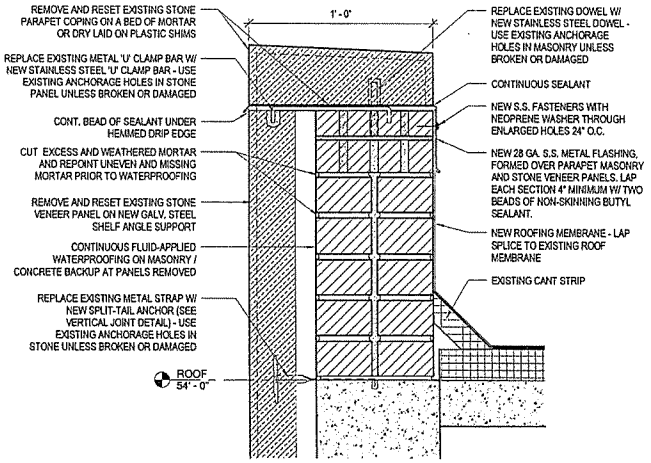
5 A502 PARAPET COPING JOINT
12" = 1'-0"



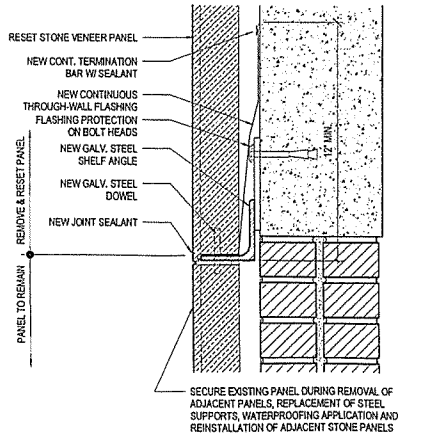
3 A502 EXTERNAL CORNER QUIRK MITER JOINT
3" = 1'-0"



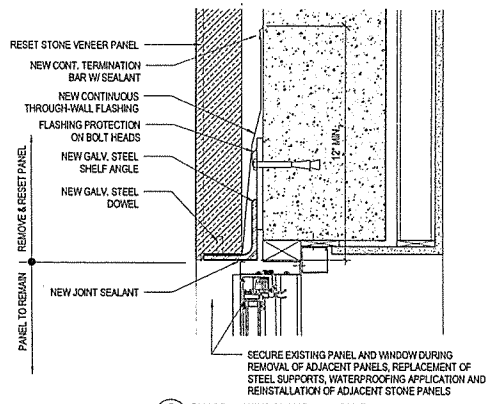
4 A502 INTERNAL CORNER BUTT JOINT
3" = 1'-0"



6 A502 PHASE 2 - PARAPET - STONE
3" = 1'-0"



7 A502 PHASE 2 - PANEL SUPPORT
3" = 1'-0"



8 A502 PHASE 2 - WINDOW HEAD - STONE
3" = 1'-0"

STATE OF GEORGIA
JOSHUA ERIC GRAUCH
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WALL PANEL EVALUATION PART II
FAE200902697

160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION
1	07/18	COMMENTS

Drawn By	JEG
Checked By	MRB
Date	09/01/2016
Project No.	05023.00

SHEET TITLE
PHASE 2 - STONE DETAILS

SHEET NUMBER
A502

A. GENERAL

1. APPLICABLE CODES
   2006 INTERNATIONAL BUILDING CODE
   ASCE 7-02 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
   ACI 318-02 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
   NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 2005

2. DESIGN LOADS

   ROOF LIVE LOAD = 30 PSF
   WIND. IBC 2006 BASIC WIND SPEED 90 MPH, IMPORTANCE FACTOR 1

3. DISCREPANCIES.
   CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS AT JOB SITE AND BRING TO THE ATTENTION OF THE CONTRACTING OFFICER ANY DISCREPANCIES.

4. OTHER TRADES.
   CONTRACTOR TO COORDINATE LOCATION OF PIPE, VENT, DUCT AND OTHER OPENINGS AND DETAILS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

B. CONCRETE CONSTRUCTION

1. ALL CONCRETE SHALL ATTAIN A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS NOTED OTHERWISE

2. MIXING AND PLACING OF ALL CONCRETE AND SELECTION OF MATERIALS SHALL BE IN ACCORDANCE WITH ACI 301 AND 318, LATEST EDITIONS. CEMENT SHALL CONFORM TO ASTM C150. ALL CEMENT AND AGGREGATE FOR EXPOSED CONCRETE SURFACES SHALL BE OF THE SAME TYPE FROM THE SAME MANUFACTURING PLANT. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. PROVIDE AIR-ENTRAINED CONCRETE EXPOSED TO WEATHER. MIX DESIGNS SHALL BE SUBMITTED TO CONTRACTING OFFICER PRIOR TO USE.

3. PREPARE AND SUBMIT FOR APPROVAL TO CONTRACTING OFFICER SHOP DRAWINGS FOR REINFORCING STEEL IN ACCORDANCE WITH ACI 315, "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT". MINIMUM CAST-IN-PLACE CONCRETE COVER OVER REINFORCING STEEL, UNLESS OTHERWISE NOTED, SHALL BE:

CONCRETE EXPOSED TO EARTH OR WEATHER,	
#6 BARS OR LARGER	2"
#5 BARS OR SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER	
SLABS, WALLS,	¾"

4. REINFORCING:
   REINFORCING STEEL, ASTM A615 GRADE 60 — FY = 60 KSI
   WELDED WIRE FABRIC, ASTM A185 — FY = 65 KSI

5. CONSTRUCTION JOINTS,
   ADDITIONAL CONSTRUCTION JOINTS SHALL HAVE PRIOR APPROVAL OF CONTRACTING OFFICER

6. PENETRATIONS,
   PENETRATIONS OTHER THAN SHOWN SHALL NOT BE ALLOWED WITHOUT PRIOR APPROVAL OF RESIDENT ENGINEER.

7. BAR SPLICES
   ALL DOWEL AND LAP LENGTHS SHALL BE AS GIVEN IN ACI 318-02 UNLESS NOTED OTHERWISE. PREPARE LAP SPLICE TABLE AND SUBMIT TO CONTRACTING OFFICER FOR APPROVAL PRIOR TO ANY FIELD PLACEMENT OF REINFORCEMENT.

C. STEEL CONSTRUCTION:

1. SUBMIT SHOP AND ERECTION DRAWINGS FOR ALL STRUCTURAL STEEL WORK. DO NOT BEGIN FABRICATION UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED BY THE CONTRACTING OFFICER.

2. CONTRACTOR SHALL REVIEW ALL CONTRACT DRAWINGS FOR MISCELLANEOUS STEEL.

3. ALL SHOP AND FIELD WELDING SHALL BE PERFORMED ONLY BY WELDERS QUALIFIED PER AWS D1.1 STRUCTURAL WELDING CODE – STEEL. ALL WELDING SHALL CONFORM TO AWS D1.1 LATEST EDITION. MINIMUM WELD SHALL BE CONTINUOUS 3/16 INCH FILLET WELDS U.N.O. ELECTRODES SHALL BE LOW HYDROGEN E70XX.

4. UNLESS NOTED OTHERWISE ANCHOR BOLTS/DOWELS SHALL CONFORM TO ASTM A307. PROTECT BOLTS FROM DAMAGE DURING CONSTRUCTION.

5. GALVANIZING OF STRUCTURAL SHAPES AND FABRICATED PARTS SHALL BE DONE IN ACCORDANCE WITH ASTM A123 AFTER FABRICATION. GALVANIZING OF THREADED PARTS, BOLTS, NUTS AND WASHERS SHALL BE DONE IN ACCORDANCE WITH ASTM A153. UNLESS OTHERWISE NOTED, ALL STEEL SHALL BE GALVANIZED.

6. SHOP PAINT ALL STRUCTURAL STEEL EXCEPT STEEL SURFACES EMBEDDED IN CONCRETE, GALVANIZED SURFACES, BEARING SURFACES, SURFACES SCHEDULED TO RECEIVE SPRAY ON FIRE-PROOFING, CONTACT SURFACES FOR ALL SLIP CRITICAL BOLTED CONNECTIONS, OR SURFACES WITHIN ½ OF THE TOE OF THE WELDS PRIOR TO WELDING. TOUCH-UP PAINT ALL AREAS SUBJECT TO PAINT ALTERATION AFTER ERECTION. PROVIDE A ONE-COAT SHOP-APPLIED ZINC-RICH PAINTING SYSTEM COMPLYING WITH STEEL STRUCTURES PAINTING COUNCIL (SSPC) PAINTING SYSTEM SPECIFICATION NUMBER 12.01.

7. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS U.N.O.:

STEEL ANGLES, BENT PLATES, BASE PLATES	A36	(Fy=36 KSI)
STEEL TUBING	A500 GRADE B	(Fy=46 KSI)
STRUCTURAL STEEL OTHER SHAPES	A992 GRADE 50	(Fy=50 KSI)

8. STRUCTURAL STEEL FABRICATOR SHALL REVIEW ALL CONNECTIONS SHOWN ON THESE DRAWINGS FOR SHEAR CAPACITY, MOMENT CAPACITY, CONSTRUCTION TOLERANCES, AND ERECTION TOLERANCES. CONNECTIONS SHALL DEVELOP THE REQUIRED MOMENT AND SHEAR CAPACITY AND SHALL BE DETAILED PER THE AISC PROVISIONS.

D. PRECAST CONCRETE:

1. PRECAST MANUFACTURER SHALL BE RESPONSIBLE FOR PRECAST PANEL REINFORCING DESIGN DUE TO LOADS FROM MANUFACTURING, HANDLING, AND ERECTION. DESIGN WIND PRESSURE SHALL BE IN ACCORDANCE WITH ASCE 7-05. PANEL DESIGN SHALL COMPLY WITH ACI 318-05, ACI 550R, AND PCI STANDARDS.

2. GROUT PLACED IN JOINTS BETWEEN PRECAST CONCRETE MODULES SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI NON-SHRINKING GROUT.

E. BUILDING ERECTION:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN AND PROVISION OF ALL TEMPORARY GUYS, BRACING, AND ANY OTHER SUPPORTS AS NEEDED TO SAFELY RESIST ALL LOADS TO WHICH STRUCTURE MAY BE SUBJECTED, INCLUDING LOADS FROM ERECTION EQUIPMENT AND OPERATIONS AND ALL WIND OR SEISMIC FORCES COMPARABLE IN INTENSITY FOR WHICH STRUCTURE WAS DESIGNED.

FULTON COUNTY

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CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697

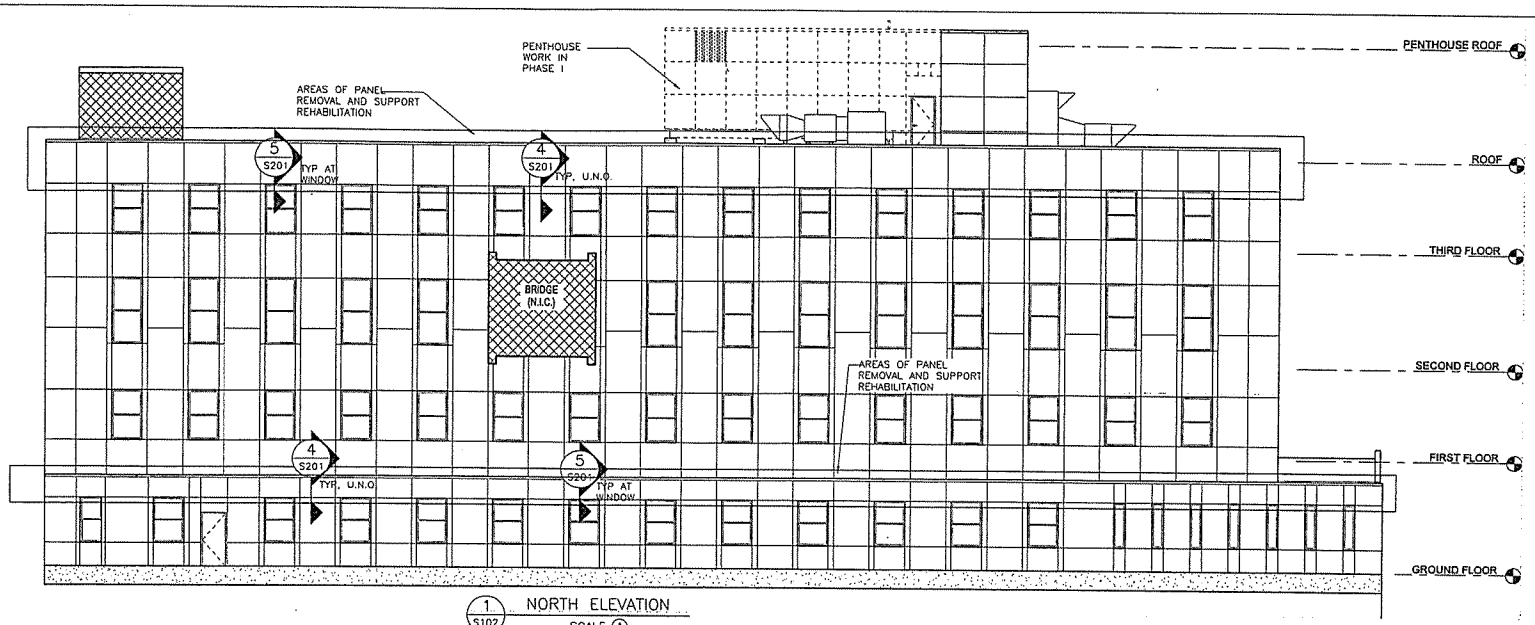
160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

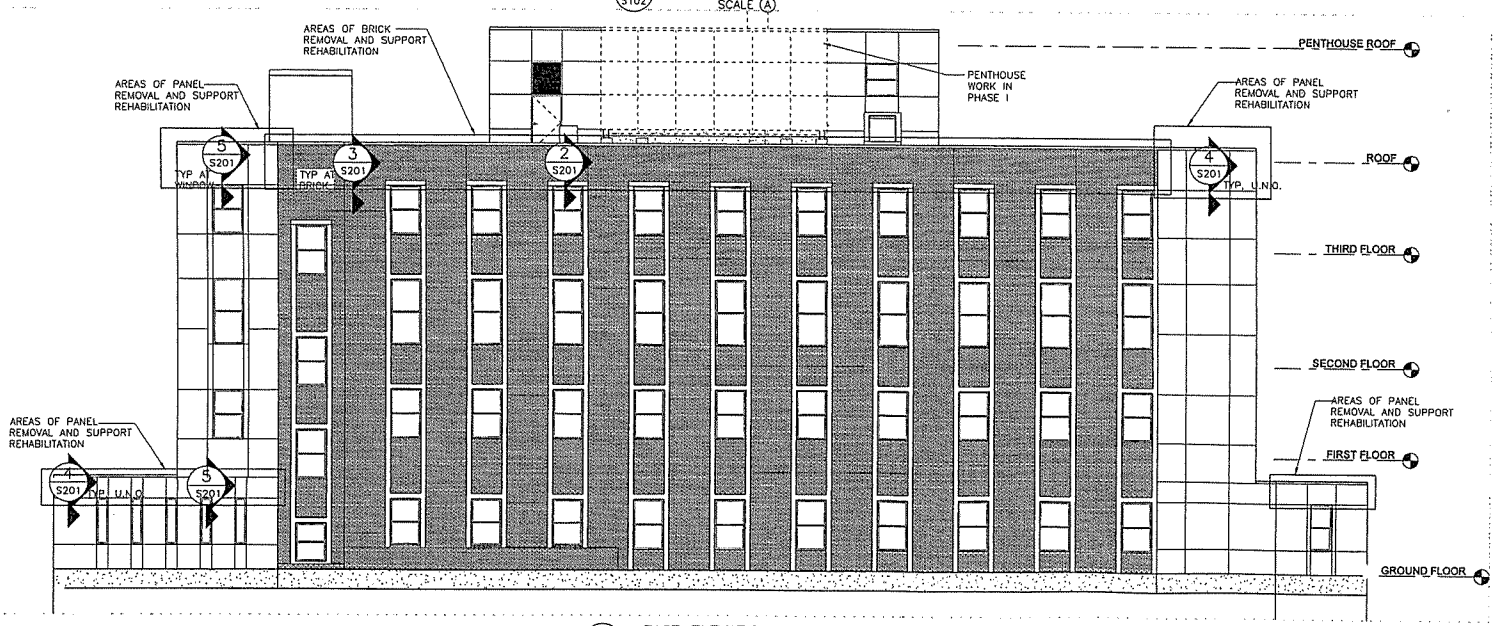
Drawn By	SNG
Checked By	RAB
Date	12/2/2009
Project No.	09023.00

SHEET TITLE
STRUCTURAL GENERAL NOTES

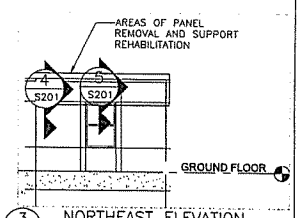
SHEET NUMBER
S000



1 S102 NORTH ELEVATION
SCALE (A)



2 S102 EAST ELEVATION
SCALE (A)



3 S102 NORTHEAST ELEVATION
SCALE (A)

SCALE (A) 8 0 8 16
SCALE OF FEET

FULTON COUNTY

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CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697

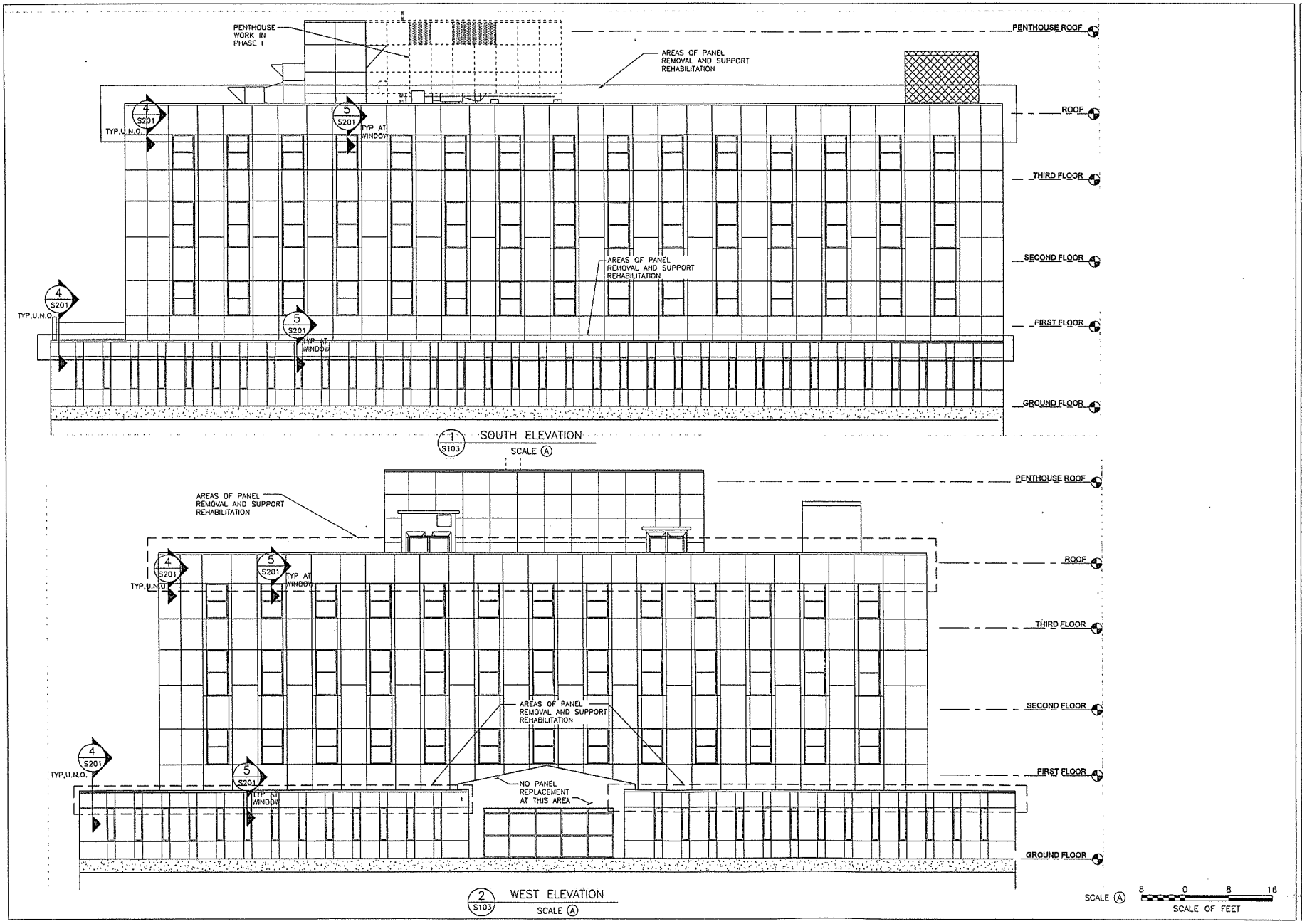
160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

Drawn By	Author
Checked By	Checker
Date	12/2/2009
Project No.	09023.00

SHEET TITLE
EXTERIOR ELEVATIONS - PHASE II

SHEET NUMBER
S102



GEORGIA REGISTERED PROFESSIONAL ENGINEER

FULTON COUNTY

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CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697

160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

Drawn By	SNG
Checked By	RAB
Date	12/2/2009
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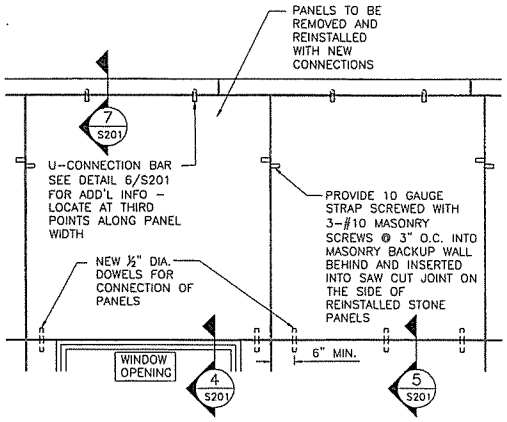
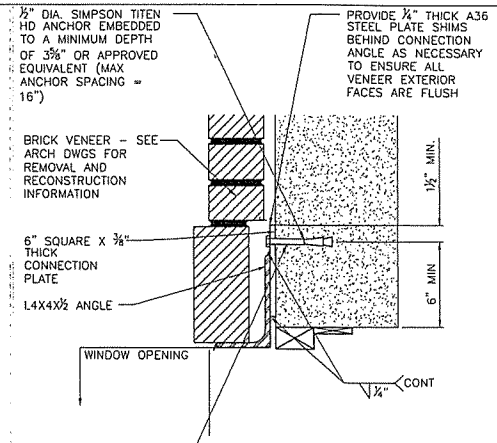
SHEET TITLE
EXTERIOR ELEVATIONS - PHASE II

SHEET NUMBER
S103

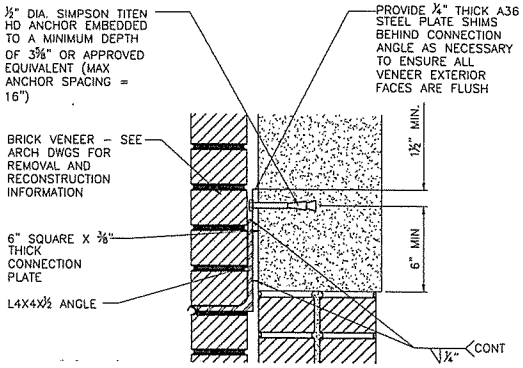


1 S201 PANEL ELEVATION
SCALE (A)



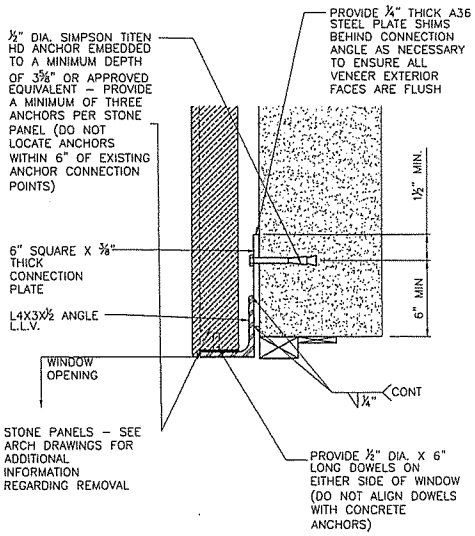
NOTE: ALL NEW STEEL PROVIDED (ANCHORS, ANGLES, ETC.) SHALL BE GALVANIZED. ALL WELDS SHALL BE CLEANED AND COATED WITH ZINC RICH PAINT

2 S201 SECTION - BRICK FACADE
SCALE (B)



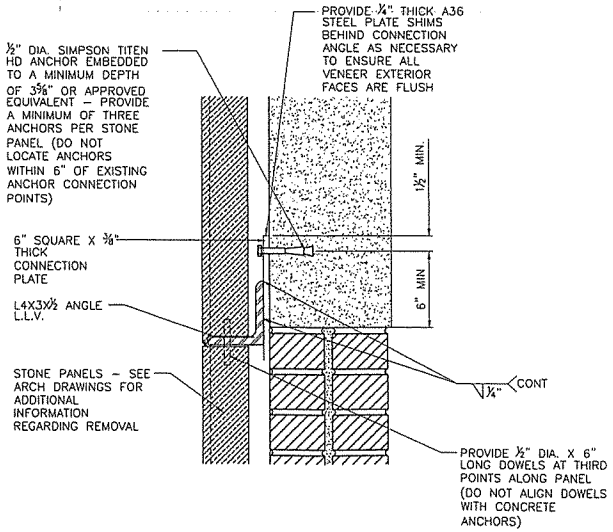
NOTE: ALL NEW STEEL PROVIDED (ANCHORS, ANGLES, ETC.) SHALL BE GALVANIZED. ALL WELDS SHALL BE CLEANED AND COATED WITH ZINC RICH PAINT

3 S201 SECTION - BRICK FACADE
SCALE (B)



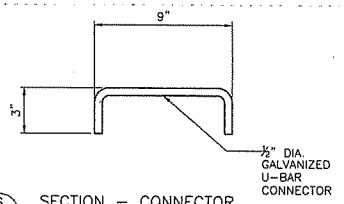
NOTE: ALL NEW STEEL PROVIDED (ANCHORS, ANGLES, ETC.) SHALL BE GALVANIZED. ALL WELDS SHALL BE CLEANED AND COATED WITH ZINC RICH PAINT

4 S201 SECTION - MARBLE FACADE AT WINDOW
SCALE (B)

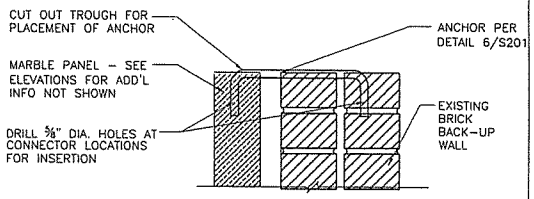


NOTE: ALL NEW STEEL PROVIDED (ANCHORS, ANGLES, ETC.) SHALL BE GALVANIZED. ALL WELDS SHALL BE CLEANED AND COATED WITH ZINC RICH PAINT

5 S201 SECTION - MARBLE FACADE
SCALE (B)



6 S201 SECTION - CONNECTOR
SCALE (B)



7 S201 SECTION
SCALE (B)

SCALE (A) 1 0 1 2 3
SCALE OF FEET

SCALE (B) 6 3 0 6
SCALE OF INCHES

FULTON COUNTY

HARTRAMPF
7000 CENTRAL PARKWAY SUITE 1475
ATLANTA, GA 30328
(678) 320 1635

CARNES JUSTICE CENTER BLDG
WALL PANEL EVALUATION PART II
FAE200902697
160 PRYOR STREET, ATLANTA, GA 30303

NO.	DATE	REVISION

Drawn By	SNG
Checked By	RAB
Date	12/2/2009
Project No.	09023.00

SHEET TITLE
STRUCTURAL DETAILS - PHASE II

SHEET NUMBER
S201

APPENDICES

ASBESTOS ANAYLTICAL RESULTS

May 18, 2009
C.E.R.M. Project No. 11-0964-041

Asbestos Analytical Results

TABLE 1 – SUSPECT ACM

SAMPLE ID	SUSPECTACM/ LOCATIONS	QUANTITY	RESULTS (weight %)	Comments
CCB-01	**Caulk/Northside**	**Joint over entire Exterior Bldg.**	**ND/ 3% Chr.**	**Talc; Paint and Wollastonite included as binder**
CCB-02	**Caulk/Southside**	**Joint over entire Exterior Bldg.**	**ND/ 3% Chr.**	**Talc; Paint and Wollastonite included as binder**
CCB-03	**Caulk/Southside**	**Joint over entire Exterior Bldg.**	**3% Chr.**	**Paint included as binder**
CCB-04	**Caulk/Eastside**	**Joint over entire Exterior Bldg.**	**ND/ 3% Chr.**	**Talc; Paint and Wollastonite included as binder**
CCB-05	**Caulk/mortar/Elevator Equipment Room**	**Joint over entire Exterior Bldg.**	**3% Chr. / ND**	**Caulk/ plaster**
CCB-06	**Caulk/mortar/Elevator Equipment Room**	**Joint over entire Exterior Bldg.**	**3% Chr. / ND**	**Caulk/ plaster**
CCB-07	Caulk/mortar/Elevator Equipment Room	Joint over entire Exterior Bldg.	ND	
CCB-08	**Caulk/mortar/Elevator Equipment Room**		**3% Chr. / ND**	**Caulk/ plaster**
CCB-09	Windows North/ Gray Caulking		ND	
CCB-10	Windows North/ Gray Caulking		ND/ND	
CCB-11	Plaster/Stairs to Roof		ND/ND	Paint included as binder
CCB-12	Plaster/ Stairs to Roof		ND/ND	Paint included as binder

Note: ND-None detected: Chr-Chrysotile; (AHC-01)-Preliminary Samples, Amo--Amosite

Laboratory analysis revealed the presence of greater than 1% asbestos in the joint sealant (caulking).

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Client Name: Corporate Environmental Risk Management, LL
Project Name: CHARLES CARNES BLDG.
Project Number: 11-0964-XXX

Lab ID# 102082-0
AES Job Number: 0905332
Thursday, May 07, 2009

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
CCB-01 Layer: 1	0905332-001A	Northside / Caulk	ND	ND	ND	ND	ND	ND	Talc; Paint; and Wollastonite included as binder
CCB-01 Layer: 2	0905332-001A	Northside / Caulk	3	ND	ND	ND	ND	ND	
CCB-02 Layer: 1	0905332-002A	Southside / Caulk	ND	ND	ND	ND	ND	ND	Talc; Paint; and Wollastonite included as binder
CCB-02 Layer: 2	0905332-002A	Southside / Caulk	3	ND	ND	ND	ND	ND	
CCB-03 Layer: 1	0905332-003A	Southside / Caulk	3	ND	ND	ND	ND	ND	Paint included as binder
CCB-04 Layer: 1	0905332-004A	Eastside / Caulk	ND	ND	ND	ND	ND	ND	Talc; Paint; and Wollastonite included as binder
CCB-04 Layer: 2	0905332-004A	Eastside / Caulk	3	ND	ND	ND	ND	ND	
CCB-05 Layer: 1	0905332-005A	Elevator Equip. Rm / Caulk / Mortar	3	ND	ND	ND	ND	ND	Caulk
CCB-05 Layer: 2	0905332-005A	Elevator Equip. Rm / Caulk / Mortar	ND	ND	ND	ND	ND	ND	Plaster

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials. Quantitative TEM is currently the only method that can be used to determine the conclusive asbestos content.

It is certified by the signatures below that the laboratory identified is accredited by the National Institute of Standards and Technology for Polarized Light Microscopy (PLM) analysis under the EPA Interim Asbestos Bulk Sample Quality Assurance Program, Laboratory ID 102082-0. All percentages given are by visually estimated volume. All analyses are performed in accordance with the EPA "Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116, July 1993." This report must not be reproduced except in full without the approval of Analytical Environmental Service, Inc. These test results apply only to the samples actually tested.

Microanalyst: Svetlana Arkhipov

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Client Name: Corporate Environmental Risk Management, LL
Project Name: CHARLES CARNES BLDG.
Project Number: 11-0964-XXX

Lab ID# 102082-0
AES Job Number: 0905332

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
CCB-06 Layer: 1	0905332-006A	Elevator Equip. Rm / Caulk / Mortar	3	ND	ND	ND	ND	ND	Caulk
CCB-06 Layer: 2	0905332-006A	Elevator Equip. Rm / Caulk / Mortar	ND	ND	ND	ND	ND	ND	Plaster
CCB-07 Layer: 1	0905332-007A	Elevator Equip. Rm / Caulk / Mortar	ND	ND	ND	ND	ND	ND	
CCB-08 Layer: 1	0905332-008A	Elevator Equip. Rm / Caulk / Mortar	3	ND	ND	ND	ND	ND	Caulk
CCB-08 Layer: 2	0905332-008A	Elevator Equip. Rm / Caulk / Mortar	ND	ND	ND	ND	ND	ND	Plaster
CCB-09 Layer: 1	0905332-009A	Windows North / Gray Caulking	ND	ND	ND	ND	ND	ND	
CCB-10 Layer: 1	0905332-010A	Windows North / Gray Caulking	ND	ND	ND	ND	ND	ND	
CCB-11 Layer: 1	0905332-011A	Plaster / Stairs to Roof	ND	ND	ND	ND	ND	ND	Paint included as binder
CCB-11 Layer: 2	0905332-011A	Plaster / Stairs to Roof	ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials. Quantitative TEM is currently the only method that can be used to determine the conclusive asbestos content.

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Client Name: **Corporate Environmental Risk Management, LL**
Project Name: CHARLES CARNES BLDG.
Project Number: 11-0964-XXX

Lab ID# 102082-0
AES Job Number: 0905332

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
CCB-12 Layer: 1	0905332-012A	Plaster / Stairs to Roof	ND	ND	ND	ND	ND	ND	Paint included as binder
CCB-12 Layer: 2	0905332-012A	Plaster / Stairs to Roof	ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite
For comments on the samples, see the individual analysis sheets.
ND = None Detected
PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials. Quantitative TEM is currently the only method that can be used to determine the conclusive asbestos content.

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