

PROJECT MANUAL

**RENOVATIONS
TO
WW2 HANGAR #2 (North Hangar)
And
WW2 Hangar #3 (South Hangar)
FOR THE
CITY OF DOUGLAS, GEORGIA**

PROPERTY ADDRESS
144 Airport Circle
Douglas, Georgia 31535

APRIL 10, 2026

Prepared For:



Construction Manager:



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RENOVATIONS
TO
WW2 Hangar #2 (North Hangar)
And
WW2 Hangar #3 (South Hangar)
For The
City of Douglas, Georgia

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REQUEST FOR PROPOSALS

SECTION 00100

Competitive sealed proposals from qualified Subcontractors will be received by the Construction Manager, **Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture** (hereby known as Harper/Lewis), at City of Douglas City Hall, located at 302 S. Madison Ave., Douglas, Georgia, until **2:00 PM** at the time legally prevailing in Douglas, Georgia, on **Thursday, June 18, 2026**, for the construction of:

**Renovations
To
WW2 Hangar #2 (North Hangar)
And
WW2 Hangar #3 (South Hangar)
For The
City of Douglas, Georgia**

Harper/Lewis is soliciting competitive sealed proposals from qualified Subcontractors for the following proposal packages:

- 7A. PRE-ENGINEERED METAL BUILDING ROOFING / TRIM**
- 7B. TPO ROOFING / TRIM**
- 9A. PAINTING / CAULKING**

Please read the Instructions To Proposers as relates to specific individual proposal items and packages. Please submit proposals, in duplicate, on the proper Harper/Lewis provided proposal form in a sealed envelope. Do not fax and/or email proposal.

Proposals submitted by mail should be addressed to Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, c/o City of Douglas City Hall, 302 S. Madison Ave., Douglas, Georgia 31533, and plainly marked as indicated in the Instructions to Proposers. The Owner and Construction Manager will not be responsible for late or incorrectly delivered mail or parcel deliveries.

Proposal documents may be obtained electronically, from the Construction Manager, by submitting such request via e-mail to jpharper@hcbi.net. A fully executed electronic file indemnification agreement shall be submitted by the proposer with his/her proposal. See Section 00850.

Proposers are cautioned that acquisition of Proposal Documents through any source other than the Construction Manager is not advisable. Acquisition of Proposal Documents from unauthorized sources places the proposer at risk of receiving incomplete or inaccurate information upon which to base a proposal. Only Subcontractors that obtain proposal documents directly from the Construction Manager will be placed on the official proposer list and allowed to submit a proposal. Harper/Lewis reserves the right to make available other relevant documents or information concerning the Project. Drawings and Specifications may be examined, during normal business hours, at the office of the Construction Manager at: 1355 Thompson Drive, Douglas, GA 31535.

Successful Subcontractors agree to use a Harper/Lewis Subcontract Agreement form for all contracted work. A sample subcontract agreement has been included in the specifications for review. Terms and Conditions in the subcontract agreement between the Construction Manager and the Subcontractor take precedence when in conflict with terms and conditions of the contract between Construction Manager

REQUEST FOR PROPOSALS

SECTION 00100

and Owner. No proposal may be withdrawn for a period of sixty days after the time has been called on the date of the opening.

Submit all questions in writing to Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, P.O. Drawer 2029 (Zip 31534), 1335 Thompson Drive, Douglas, Georgia 31533, attn.: Jeff Harper, Phone 912/384-0887, Fax 912/384-3889, or jpharper@hcbi.net.

Special attention is called to proposal packages requiring a Bid Security with Proposal Form. Make Bid Security payable to Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, in an amount equal to 5% of the proposal sum. Bid Security shall be a bid bond issued by a surety approved by the Department of Treasury and acceptable to the Construction Manager or Proposer may submit a Certified or Cashier's Check in lieu of the bid bond. The successful proposer's security will be retained until he has signed the Contract Agreement and furnished the required Performance and Payment Bonds and the required insurance certificates.

Special attention is called to proposal packages requiring Performance and Payment bonds. Each bond shall be for 100% of the Contract Sum.

At the discretion of Harper/Lewis and in conformity with the applicable provisions of Georgia Law, Harper/Lewis may afford subcontractors an opportunity for subsequent discussion, negotiation, and revision of Proposals. Harper/Lewis reserves the right to reject any or all proposals and to waive any technicalities and formalities.

A **Pre-proposal Conference**, which is not mandatory for those submitting proposals, will be held **Tuesday, June 02, 2026, at 2:00 PM** Local Current Standard Time at the City of Douglas City Hall, 302 S. Madison Ave., Douglas, Georgia 31533.

CONSTRUCTION MANAGER'S INSTRUCTIONS TO PROPOSERS

SECTION 00200

RENOVATIONS TO WW2 HANGAR #2 (NORTH HANGAR) AND WW2 HANGAR #3 (SOUTH HANGAR) FOR THE CITY OF DOUGLAS, GEORGIA

COMPETITIVE SEALED PROPOSALS: Competitive sealed proposals for the Proposal Packages on the above referenced project in Douglas, Georgia will be received by Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, at the **City of Douglas City Hall, located at 302 S. Madison Ave., Douglas, Georgia 31533, until Thursday, June 18, 2026 at 2:00 p.m. EST.**

PROPOSAL DOCUMENTS: Proposal documents may be obtained by Subcontractors as noted in the Request for Proposals.

Drawings and specifications are also available for review at the following locations:

1. City of Douglas
City Hall
302 S. Madison Ave,
Douglas, Georgia 31533
(912) 384-3302
2. Harper & Company Builders, Inc.
P.O. Drawer 2029 (Zip 31534)
1355 Thompson Drive
Douglas, Georgia 31533
(912) 384-0887
4. Charles E. Lewis
Construction Co., Inc.
401 Bowens Mill Rd, SW
Douglas, Georgia 31533
(912) 384-7174

PROPOSALS: As detailed in these Specifications, and for clarification, the following documents shall be submitted with your proposal in a sealed envelope:

- 1) Proposal Form, in duplicate (Section 00500)
- 2) If required by Proposal Package, a 5% Proposal Security (Bid Bond, Cashier's Check, Certified Check, all made payable to Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture)
- 3) Certificate of Non-Collusion Affidavit (Section 00250)
- 4) Security and Immigration Compliance (Section 00700)
- 5) Equal Employment Opportunity Affidavit (Section 00800)
- 6) Electronic File Indemnification Agreement (Section 00850)

The **proposal must be submitted on the proper form to receive consideration.** Proposal forms have been prepared to facilitate proposals for any component or combination of components. Each proposal form has an item for combination proposals that may be utilized for any combinations of two or more of the proposal items listed in the Construction Manager's

CONSTRUCTION MANAGER'S INSTRUCTIONS TO PROPOSERS

SECTION 00200

Instructions to Proposers. Combination proposals are made available to allow the Construction Manager to offer the Owner a discounted proposal should they award more than one work item to an individual Subcontractor.

Section numbers shown are not intended to limit the Scope of Work contemplated for the proposal item. If work or materials are shown on the plans, described in the Specifications, or otherwise reasonably inferable there from, it will be considered included in your proposal.

Qualifications and clarifications may be attached to the proposal form. Every effort should be made by subcontractors to contact the Construction Manager with any qualifications and/or clarifications prior to submitting proposal. Construction Manager reserves the right to reject a proposal that is qualified, if in the Construction Manager's opinion; qualifications are used to create an unfair advantage through the proposal process.

All proposals are considered lump sum proposals unless specifically indicated in the Instructions to Proposers. Subcontractors that list quantities are not relieved from the responsibility of providing all work indicated in the specifications or on the drawings. Listing of quantities may not, at the Construction Manager's option, allow relief from incorrect quantity takeoffs.

The Construction Manager reserves the right to waive irregularities with the proposal form.

ALL BIDDERS ARE CAUTIONED TO BECOME FAMILIAR WITH THE REQUIREMENTS OF DIVISION 0, "BIDDING AND CONTRACT REQUIREMENTS", AND DIVISION 1, "GENERAL REQUIREMENTS", OF THE PROJECT SPECIFICATIONS. All cost associated with these divisions shall be included in each Subcontractor's proposal unless specifically excluded in these instructions.

CERTIFICATE OF NON-COLLUSION: Each proposer shall submit a completed "Certification of Non-Collusion" with each proposal. Please use "Certification of Non-Collusion" in Section 00250.

PREPARATION OF PROPOSALS: Proposals shall be submitted in duplicate on forms provided for that purpose, with original signatures, and delivered in a sealed envelope. Envelope shall be clearly identified with the time and date of opening and name of the project for which proposal is submitted. All blank spaces on forms must be fully filled in, and amounts must be in words as well as figures. Signatures shall be in longhand executed by principal duly authorized to make contracts. The proposer's legal name and full names and addresses of persons and firms interested in proposing as principals must be fully stated. The complete forms shall be without interlineations, alterations, or erasures. Failure to submit proposals on the forms provided or inclusion of any condition, limitation, or provisions not called for will render proposal irregular and will be sufficient cause for rejection of proposal. Construction Manager or Owner will not be obligated to give consideration to any plea of error in preparation of proposal after time has been called. Oral, telegraphic, or telephonic proposal will not be considered. If a proposal is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED PROPOSAL ENCLOSED" on the face thereof.

Upon submission, all Proposals shall become and remain the property of Harper/Lewis. Harper/Lewis shall have no liability arising out of the disclosure, dissemination, or publication of any Proposal or any information contained therein.

PROPOSAL SECURITY: Special attention is called to proposal packages requiring a Bid Security with Proposal Form. Make Bid Security payable **Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture**, in an amount equal to 5% of the proposal sum. Bid Security shall be a bid bond issued by a surety approved by the Department

CONSTRUCTION MANAGER'S INSTRUCTIONS TO PROPOSERS

SECTION 00200

of Treasury and acceptable to the Construction Manager or Proposer may submit a Certified or Cashier's Check in lieu of the bid bond. The successful proposer's security will be retained until he has signed the Contract Agreement and furnished the required performance and payment bonds and the required insurance certificates.

The Construction Manager reserves the right to retain the security of the two next lowest proposers until the lowest proposer enters into contract or purchase order agreement or until 90 days. All other bid securities will be returned as soon as possible. If a proposer refuses to enter into a contract, the Construction Manager will retain his Bid Security as liquidated damages, but not as a penalty. No proposal may be withdrawn for a period of sixty (60) days after the time has been called on the date of the opening.

PERFORMANCE BOND, AND LABOR AND MATERIAL BOND: Special attention is called to proposal packages requiring performance and payment bonds. Each bond shall be for 100% of the Contract Sum. Deliver the bonds to the Construction Manager not later than the time of execution of the Subcontract Agreement. Failure or neglect by the selected proposer to deliver these bonds, as specified, will be considered as his having abandoned the Subcontract Agreement and the Bid Security will be retained by the Construction Manager as liquidated damages, but not as a penalty. Bond should be on an AIA approved form.

UTILITY WORK PROPOSALS: Proposers are required to comply with Georgia Law O.C.G.A. 43-14-8.2

FAMILIARITY WITH WORK: Before submitting proposals, proposers shall carefully examine Drawings and Specifications, inspect project site, and acquaint themselves with governing laws, codes, ordinances and regulations and otherwise thoroughly familiarize themselves with all conditions which may affect performance of work.

EXAMINATION OF SITE: Proposers are requested to visit the site, compare Drawings and Specifications with any work in place, and inform themselves of all conditions, including other work, if any, being performed. Failure to visit the site shall not relieve successful proposer from necessity of furnishing materials or performing work required to complete work in accordance with the Contract Documents without additional cost to the Construction Manager.

The submission of a Proposal constitutes a representation by the Subcontractor that it has studied and examined the Contract Documents and such other information as may have been furnished by the Owner, Engineer, Architect, and Construction Manager. Furthermore, the submission of a Proposal constitutes a representation by the Subcontractor that it has no knowledge of any ambiguities, errors, omissions or any other inaccuracies in any of the Contract Documents or material furnished by the Owner, Engineer, Architect, and Construction Manager in connection with the Project.

PRE-PROPOSAL CONFERENCE: A Pre-Proposal Conference will be held as indicated in the Request for Proposals. Each Proposer may attend a Pre-Proposal Conference with the representatives of the Construction Manager, Owner, Engineer and the Architect. The conference will serve to acquaint the Proposers with requirements of the Proposal Documents, to answer questions concerning the Project requirements, and to visit the site of the project. Any clarifications or changes, as a result of this conference, will be issued to each proposer in the form of a written Addendum. All Proposers are responsible for contacting the Construction Manager to verify number of addenda issued.

INTERPRETATIONS: Oral interpretations will not be made to proposers as to meaning of Drawings and Specifications. Should proposer find discrepancies or ambiguities in, or omissions from Drawings or Specifications, or should he be in doubt as to their meaning, he

CONSTRUCTION MANAGER'S INSTRUCTIONS TO PROPOSERS

SECTION 00200

shall at once notify the Construction Manager, who will issue written addendum if required, to all proposers. Request for proposers must be made in writing not later than seven (7) calendar days prior to receipt of proposals, and failure on part of successful proposer to do so shall not relieve him as Subcontractor of obligations to execute such work in accordance with later interpretation. Addenda are to be incorporated in proposal and will become part of Contract Documents.

Interpretations will be in the form of Addenda, which will be on file in the offices of the Owner, Engineer, Architect, and the Construction Manager at least three days before bids are opened, excluding Saturdays, Sundays, and legal holidays. However, if the necessity arises to issue an addendum modifying plans and specifications within the 72 hour period prior to the advertised time for the opening of proposals, excluding Saturdays, Sundays, and legal holidays, then the opening of proposals shall be extended at least 72 hours, excluding Saturdays, Sundays, and legal holidays, from the date of the original bid opening.

In addition, addenda will be faxed, mailed, or sent electronically to each proposer, but it shall be the proposer's responsibility to make inquiry as to addenda issued. All such addenda shall become part of the contract and all proposers shall be bound by such addenda, whether or not received by the proposers.

PRIOR APPROVAL: If it is desired to use products of trade or brand names which are different from those mentioned in the Contract Documents, application for approval for the use of such products must reach the hands of the Construction Manager at least ten (10) days prior to proposal opening. Proposers shall follow the procedure specified in Section 01631, "Products and Substitutions".

INSURANCE CERTIFICATES: The proposer who is selected to enter into a Subcontract Agreement for this work shall obtain and pay insurance coverage as required by Schedule E "Insurance" as shown on Sample Subcontract Agreement in Section 00900. Harper/Lewis and the City of Douglas, Georgia **must** be listed as an additional insured on the Certificate of Insurance. Failure or neglect by the selected proposer to deliver certificates as specified will be considered as having abandoned the Subcontract Agreement and the Bid Security will be retained by the Construction Manager as liquidated damages, but not as a penalty.

BASIS OF CONTRACT: Harper/Lewis and the City of Douglas, Georgia reserves the right to waive any formalities or technicalities in the proposal process, to accept any proposals or alternates, or to reject any or all proposals, or to negotiate Contract Terms with the various proposers, or to award Contracts to those parties deemed the most advantageous to Harper/Lewis and the City Douglas, Georgia's best interest.

FORM OF AGREEMENT: Successful Subcontractors agree to use a Harper/Lewis customized Subcontract Agreement form similar to one shown in Section 00900, for all contracted work. Terms and conditions in the contract between the Construction Manager and the Subcontractor will take precedence when in conflict with terms and conditions of the contract between Construction Manager and the Owner.

EXECUTION OF CONTRACT: Proposers shall be prepared to execute a formal Contract Agreement within five (5) days after receipt of notice of proposal acceptance. Proposers shall upon execution of a formal Contract Agreement commence work with an adequate force and adequate equipment on a date specified in a written Notice to Proceed from the Construction Manager and to complete the Work in the time stipulated.

CONSTRUCTION MANAGER'S INSTRUCTIONS TO PROPOSERS

SECTION 00200

QUESTIONS: Submit all questions in writing to Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, P.O. Drawer 2029 (Zip 31534), 1355 Thompson Drive, Douglas, Georgia 31533, attn.: Jeff Harper, Phone 912/384-0887 or Fax 912/384-3889 or jpharper@hcbi.net. Replies will be issued as Addenda and will become part of the Contract. Proposal documents will be issued to each person or entity recorded as having received Proposal Documents from the Construction Manager.

ON-SITE TEMPORARY FACILITIES: The Construction Manager will provide, maintain, and staff an on-site construction office for use by the Construction Manager to direct, coordinate, and oversee the construction of the project. This office is for the sole and exclusive use of the Construction Manager. Project progress meetings will be held in this on-site office or other designated location. Subcontractors shall provide additional temporary facilities as required by Schedule F "Temporary Facilities" as shown on Sample Subcontract Agreement in Section 00900.

CLEAN UP: Each Subcontractor is responsible for removing and disposing of debris/trash from the site on a daily basis and shall include provisions for final clean up. In the event a Subcontractor fails to keep the project site clean to the satisfaction of the Construction Manager, the Construction Manager will employ any and all necessary manpower needed in order to perform such cleanup, and all associated premium cost will be deducted from any remaining monies owed to Subcontractor.

SCHEDULE: Each Subcontractor understands that time is of the essence and agrees to adhere to the Construction Manager's progress schedule as developed and updated at on site meetings.

SPECIAL CONDITIONS:

Each Subcontractor shall include and comply with the following:

- Report any discrepancy discovered in documents immediately to the Construction Manager.
- Submit shop drawings and submittals within **15 days** of contract award, unless noted otherwise.
- Execute contracts and provide certificates of insurance within five **(5) days** of award.
- Submit all close-out documents within **ten (10) days** of substantial completion of Subcontractor's scope of work.
- Attend weekly or biweekly on site progress meetings with the proposer's project manager and job foreman as scheduled by the Construction Manager. Failure to attend these meetings when requested could result in subcontract termination.
- Advise and consult with Construction Manager regarding the availability of materials, cost analysis, scheduling, and value engineering.
- Develop and maintain a safety program as well as follow the safety program of the Construction Manager. Any fines levied by governmental agencies due to unsafe construction practices will be the responsibility of the subcontractor in violation.
- Provide a drug-free and alcohol free work place.
- Abide by all laws, ordinances and codes and schedule inspections through local inspection department, the Architect/Engineer, and Construction Manager.
- Any contractor penetrating a "rated" wall, floor or deck shall be responsible for sealing the penetration in accordance with a U.L approved assembly.

CERTIFICATION OF NON-COLLUSION AFFIDAVIT

SECTION 00250

(TURN THIS FORM IN WITH THE BID)

The following affidavit is to accompany the proposal for the **RENOVATIONS TO WW2 HANGAR #2 (NORTH HANGAR) AND WW2 HANGAR #3 (SOUTH HANGAR) FOR THE CITY OF DOUGLAS, GEORGIA.**

STATE OF: _____
COUNTY OF: _____

_____ being first duly sworn, deposes and says that:

1. He/She is (Owner, Partner, Officer, Representative or Agent) of _____ the Proposer that has submitted the attached Proposal;
2. He/She is fully informed respecting the preparation and contents of the attached Proposal and of all pertinent circumstances respecting such Proposal;
3. Such Proposal is genuine and is not a collusive or sham Proposal;
4. Neither the said Proposer nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, have in any way colluded, conspired, connived or agreed, directly or indirectly, with any other Proposer, firm, or person to submit a collusive or sham Proposal in connection with the Work for which the attached Proposal has been submitted or to refrain from bidding in connection with such Work; or have in any manner, directly or indirectly, sought by agreement or collusion, or communication, or conference with any Proposer, firm, or person to fix the price or prices in the attached Proposal or of any other Proposer, or to fix any overhead, profit, or cost elements of the Proposal price or the Proposal price of any other Proposer, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against (Recipient), or any person interested in the proposed Work;
5. The price or prices quoted in the attached Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Proposer or any other of its agents, representatives, owners, employees or parties in interest, including this affidavit.

Signature: _____

Title: _____

Notary:
Subscribed and sworn to before me this _____ day of _____, 20____

Notary Public: _____

My Commission Expires: _____

(Seal)

NOTICE PRE-PROPOSAL CONFERENCE

SECTION 00300

NOTICE

PRE-PROPOSAL CONFERENCE

Before the opening of proposals, proposers or their representatives may attend a Pre-proposal Conference with representatives of the Construction Manager, Owner, Engineer and the Architect. The conference will serve to allow proposers to visit the site and address questions to the Construction Manager, Owner, Engineer and Architect.

The Pre-proposal Conference will be held Tuesday, June 02, 2026 at 2:00 PM Local Current Standard Time at the City of Douglas City Hall, located at 302 S. Madison Ave., Douglas, Georgia, 31533.

PROPOSAL PACKAGES

SECTION 00400

Each Subcontractor shall furnish all supervision, labor, materials, tools, equipment, insurance, taxes, professional and non-professional services, freight, etc as described within the proposal documents and as required to complete the scope of work associated with the proposal package being quoted. Proposers shall specifically include, but not necessarily limit their proposal to, the scope of work defined within the below listed specification divisions and sections and the work defined within the following construction narratives per each proposal package. The proposal packages and the scope of work for each package therein are as follows:

<u>PROPOSAL PACKAGE NUMBER</u>	<u>PROPOSAL PACKAGE DESCRIPTION</u>
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Please list your proposal package number on the outside of your envelope.

7A. PRE-ENGINEERED METAL BUILDING ROOFING / TRIM

Subcontractor shall furnish all of the supervision, labor, materials, tools, equipment, taxes, permits, insurance and other incidental items and perform all of the work required for a complete demolition of existing top layer of metal roofing panels, flashing and sheet metal, and roofing accessories. Subcontractor shall furnish all of the supervision, labor, materials, tools, equipment, taxes, permits, insurance and other incidental items and perform all of the work required for a complete vinyl backed batt insulation, hat channels, metal flashing and sheet metal work, and metal roofing panels installation and as required by the Project Plans, Division 00, Division 01, Section 07411 "Metal Roof Panels", Section 07540 "Thermoplastic-Polyolefin (TPO) Roofing", Section 07620 "Sheet Metal Flashing and Trim", and Section 07900 "Sealants and Caulking" of the specifications, and all other related Specification Sections.

Specifically included, but not limited to, shall be the following:

- Coordinate the Metal Flashing and Sheet Metal Work and Metal Roofing installation with the Construction Manager, Architect, other Subcontractors, local and state building inspectors, and utility companies that serve any portion of your work.
- Furnish eight (8) copies of submittal data, shop drawings, and samples for approval within fifteen (15) days of being awarded a Contract.
- Subcontractor shall perform all work as required by the Construction Manager's progress schedule. Subcontractor shall provide extra skilled workers/work weekends etc at no additional cost if subcontractor falls behind schedule.
- Subcontractor shall provide shop drawings showing location and size of work within this package. Shop drawings to include all relevant dimensions and thickness of material.
- Subcontractor agrees and acknowledges that work will be performed in accordance with the latest OSHA standards that govern all areas of work to be performed by Subcontractor.
- Subcontractor shall provide all layout work related to this Subcontract.

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SECTION 00400

- Subcontractor shall provide and install barricades and warning devices to ensure the safety of pedestrians and site workers.
- Subcontractor shall perform daily cleanup of debris related to the work of this Subcontract and removal of same debris from the project site.
- Finish all surfaces to the specified tolerances. No exceptions will be made for tolerances greater than those specified.
- Subcontractor shall include caulking for this scope of work.
- Field verify dimensions prior to fabrication.
- Subcontractor shall unload and properly store all materials related to this Subcontract.
- Provide minimum one year weather tightness roof warranty and all other warranties as described in the specifications.
- Subcontractor shall provide all sheet metal flashing and sheet metal work as specified, detailed and as required to provide a complete weathertight roofing system.
- Subcontractor shall provide a metal roof complete with valley flashing, eave flashing, rake flashing, roof to wall flashing, VTR flashing, ridge flashing etc. for a complete weather-tight installation.
- Subcontractor shall take all precautions not to damage existing and/or other materials on this project.
- Subcontractor shall take all precautions as to not allow moisture to enter the existing building during the roofing installation. Subcontractor shall remove only the amount of existing roofing assembly material each day as can be replaced and made watertight to prevent moisture from entering the existing building.

Please list your proposal package number on the outside of your envelope.

7B. TPO ROOFING / TRIM

Subcontractor shall furnish all of the supervision, labor, materials, tools, equipment, taxes, permits, insurance and other incidental items and perform all of the work required for a complete demolition of existing top layer of roofing, flashing and sheet metal, and roofing accessories. Subcontractor shall furnish all of the supervision, labor, materials, tools, equipment, taxes, permits, insurance and other incidental items and perform all of the work required for a complete TPO roofing, and metal flashing and sheet metal work installation and as required by the Project Plans, Division 00, Division 01, Section 07411 "Metal Roof Panels", Section 07540 "Thermoplastic-Polyolefin (TPO) Roofing", Section 07620 "Sheet Metal Flashing and Trim", and Section 07900 "Sealants and Caulking" of the specifications, and all other related Specification Sections.

- Coordinate the TPO roofing / metal trim installation with the Construction Manager, Architect, other Subcontractors, local and state building inspectors, and utility companies that serve any portion of your work.
- Furnish eight (8) copies of submittal data, shop drawings, and samples for approval within fifteen (15) days of being awarded a Contract.
- Subcontractor shall perform all work as required by the Construction Manager's progress schedule. Subcontractor shall provide extra skilled

PROPOSAL PACKAGES

SECTION 00400

workers/work weekends etc at no additional cost if subcontractor falls behind schedule.

- Subcontractor shall provide shop drawings showing location and size of work within this package. Shop drawings to include all relevant dimensions and thickness of material.
- Subcontractor agrees and acknowledges that work will be performed in accordance with the latest OSHA standards that govern all areas of work to be performed by Subcontractor.
- Subcontractor shall provide all layout work related to this Subcontract.
- Subcontractor shall provide and install barricades and warning devices to ensure the safety of pedestrians and site workers.
- Subcontractor shall perform daily cleanup of debris related to the work of this Subcontract and removal of same debris from the project site.
- Finish all surfaces to the specified tolerances. No exceptions will be made for tolerances greater than those specified.
- Subcontractor shall include caulking for this scope of work.
- Field verify dimensions prior to fabrication.
- Subcontractor shall unload and properly store all materials related to this Subcontract.
- Provide roof warranty and all other warranties as described in the specifications.
- Subcontractor shall provide all sheet metal flashing and sheet metal work as specified, detailed and as required to provide a complete weathertight roofing system.
- Subcontractor shall provide a TPO roof complete with valley flashing, eave flashing, rake flashing, roof to wall flashing, VTR flashing, ridge flashing etc. for a complete weather-tight installation.
- Subcontractor shall take all precautions not to damage existing and/or other materials on this project.
- Subcontractor shall take all precautions as to not allow moisture to enter the existing building during the roofing installation. Subcontractor shall remove only the amount of existing roofing assembly material each day as can be replaced and made watertight to prevent moisture from entering the existing building.

Please list your proposal package number on the outside of your envelope.

9A. PAINING / CAULKING

Subcontractor shall furnish all of the supervision, labor, materials, tools, equipment, taxes, permits, insurance and other incidental items and perform all of the work required for a complete painting and caulking installation and as required by the Project Plans, Division 00, Division 01, Section 07900 "Sealants and Caulking", and Section 09900 "Painting", of the specifications and all other related Specification Sections.

Specifically included, but not limited to, shall be the following:

PROPOSAL PACKAGES

SECTION 00400

- Coordinate the painting, caulking, pressure washing installation with the Construction Manager, Architect, other Subcontractors, local and state building inspectors, and utility companies that serve any portion of your work.
- Furnish eight (8) copies of submittal data, shop drawings, and samples for approval within fifteen (15) days of being awarded a Contract.
- Subcontractor agrees and acknowledges that work will be performed in accordance with the latest OSHA standards that govern all areas of work to be performed by Subcontractor.
- Subcontractor shall perform all work as required by the Construction Manager's progress schedule. Subcontractor shall provide extra skilled workers/work weekends etc at no additional cost if subcontractor falls behind schedule.
- Subcontractor shall provide all layout work related to this Subcontract.
- Subcontractor shall provide and install barricades and warning devices to ensure the safety of pedestrians and site workers.
- Subcontractor shall perform daily cleanup of debris related to the work of this Subcontract and removal of same debris from the project site.
- Finish all surfaces to the specified tolerances. No exceptions will be made for tolerances greater than those specified.
- Subcontractor shall furnish temporary heat as required for this work.
- Subcontractor shall provide all exterior painting.
- Caulk all joints between dissimilar materials, which are scheduled to paint. (i.e. Hollow Metal to CMU, drywall ceiling to CMU wall, etc.)
- Caulk exterior and interior side of hollow metal frames.
- Subcontractor shall prepare, repaint all existing hollow metal door frames and hollow metal doors.
- Subcontractor shall unload and store materials related to this Subcontract.

Please list your proposal package number on the outside of your envelope.

PROPOSAL FORM
SECTION 00500

PROPOSAL OF: _____
Proposer's Name

DATE: _____

RE: **RENOVATIONS TO WW2 HANGAR #2 (NORTH HANGAR) AND
WW2 HANGAR #3 (SOUTH HANGAR) FOR THE
CITY OF DOUGLAS, GEORGIA**

TO: HARPER & COMPANY BUILDERS, INC. AND CHARLES E. LEWIS
CONSTRUCTION CO., INC., JOINT VENTURE

Having carefully examined the Project Drawings for **RENOVATIONS TO WW2 HANGAR #2 (NORTH HANGAR) AND WW2 HANGAR #3 (SOUTH HANGAR) FOR THE CITY OF DOUGLAS, GEORGIA** as prepared by Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc, Joint Venture, the Project Specifications entitled "**RENOVATIONS TO WW2 HANGAR #2 (NORTH HANGAR) AND WW2 HANGAR #3 (SOUTH HANGAR) FOR THE CITY OF DOUGLAS, GEORGIA**", as well as the "Construction Manager's Instructions to Proposers" as prepared by Harper and Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture; and having visited the site and examined the conditions affecting the work, the undersigned proposes and agrees to furnish all services, labor, materials, equipment, and to perform all operations necessary to complete the work as required by the Proposal Packages.

Proposer may submit proposals on portions of individual and/or multiple proposal packages, and/or proposer may submit proposal packages on all parts of individual and/or multiple proposal packages. Proposal Form may be copied so that individual and/or multiple proposal packages may be submitted. If proposer submits a proposal on a portion of a proposal package in lieu of the complete proposal package, proposer shall specifically describe the scope of work he intends to provide, in writing, and attach such scope to this proposal form. If proposer submits a proposal on multiple proposal packages, and a discount may be taken if proposer is awarded such multiple packages in lieu of individual packages, proposer shall state the sum to be deducted from proposal package cost.

PROPOSAL PACKAGE NUMBER(S) _____

PROPOSAL PACKAGE DESCRIPTION(S) _____

PROPOSAL PACKAGE(S) COST _____

PROPOSAL FORM
SECTION 00500

_____ Dollars (\$ _____)
which is hereinafter called the "Base Proposal."

ADD FOR 100 % PERFORMANCE AND PAYMENT BOND \$ _____

ALTERNATES: Should the Owner decide to proceed with any of the Alternates listed below, the Base Proposal will be modified by the alternate amounts listed.

N/A

UNIT PRICES: In the event subsurface conditions differ from those indicated by the Proposal and Contract Documents, the following unit prices shall prevail and be used by computing changes to the Subcontract Agreement (additions or deletions). These unit prices include all Subcontractor cost which will be charged against the Subcontract Agreement.

N/A

Acknowledgement is made of receipt of the following addenda, if any:

Addendum No. _____, Dated _____.
Addendum No. _____, Dated _____.
Addendum No. _____, Dated _____.

For and in consideration of the sum of \$1.00, the receipt of which is hereby acknowledged, the undersigned agrees that this proposal may not be revoked or withdrawn after the time set for receiving of proposals but shall remain open for acceptance for a period of sixty (60) days following such time.

In submitting this proposal, the undersigned agrees:

- 1) To accept the provisions of the Instructions to Proposers regarding disposition of Proposal Security.
- 2) To enter into and execute a Subcontract Agreement, if awarded, on the basis of this Proposal.
- 3) To furnish Performance and Payment Bonds and Insurance Certificates, as required by the Contract Documents.
- 4) To accomplish the work in accordance with the Contract Documents.

PROPOSAL FORM
SECTION 00500

NAME OF FIRM: _____

ADDRESS: _____

SIGNED BY: _____

TITLE: _____

TELEPHONE: _____

FAX: _____

CONTACT PERSON: _____

Sworn and subscribed to before me this _____ day
of _____, 2026.

NOTARY PUBLIC

Commission Expiration: _____

SECURITY AND IMMIGRATION COMPLIANCE

SECTION 00700

(TURN THIS FORM IN WITH THE PROPOSAL)

GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT OCGA 13-10-90

TO ALL PROSPECTIVE SUBCONTRACTORS:

If you are providing service, or performing work for **Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture**, the applicable Georgia Security and Immigration Compliance documents found here must be completed, signed, notarized and submitted with your proposal.

- 1) **Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture**, shall comply with the Georgia Security and Immigration Compliance Act OCGA 13-10-90 et. seq.,
- 2) In order to insure compliance SUBCONTRACTOR agrees to comply with all of the contractor requirements of the "Georgia Security and Immigration Compliance Act" of 2006 as codified in O.C.G.A. Sections 13-10-90 and 13-10-91 and regulated in Chapter 300-10-1 of the Rules and Regulations of the State of Georgia, "Public Employers, Their Contractors and Subcontractors Required to Verify New Employee Work Eligibility Through a Federal Work Authorization Program," accessed at <http://www.dol.state.ga.us>, as further set forth below.
 - A. Subcontractor Agreement to Verify the Work Eligibility of its New Hires through the U.S Department of Homeland Security's "Employment Eligibility Verification (EEV) / Basic Pilot Program." SUBCONTRACTOR agrees to verify the work eligibility of all of SUBCONTRACTOR'S newly hired employees through the U.S. Department of Homeland Security's Employment Eligibility Verification (EEV) / Basic Pilot Program, accessed through the Internet at <https://www.vis-dhs.com/EmployerRegistration>, in accordance with the provisions and timeline found in O.C.G.A. 13-10-91 and Rule 300-10-1-.02 of the Rules and Regulations of the State of Georgia. As of July 1, 2007, the verification requirement applies to contractors and subcontractors with five-hundred (500) or more employees.
 - B. Contracts Affected by the "Georgia Security and Immigration Compliance Act." SUBCONTRACTOR agrees that the contractor and subcontractor requirements of the "Georgia Security and Immigration Compliance Act" of 2006 apply to contracts for, or in connection with, the physical performance of services within the State of Georgia.
 - C. Timeline for Application of the Worker Eligibility Verification Requirements to Contractors and Subcontractors. SUBCONTRACTOR agrees that the following Georgia Security and Immigration Compliance Act contract compliance dates apply to this contract, pursuant to O.C.G.A. 13-10-91:

On or after July 1, 2007, to public employers, contractors, or subcontractors of 500 or more employees;

On or after July 1, 2008, to public employers, contractors, or subcontractors of 100 or more employees; and

On or after July 1, 2009, to all other public employers, their contractors, and subcontractors.

The prospective SUBCONTRACTOR must initial one of the sections below:

- Subcontractor has 500 or more employees [SUBCONTRACTOR must register with the Employment Eligibility Verification/Basic Pilot Program and begin work eligibility verification on July 1, 2007, and execute and send to DEPARTMENT a “Contractor Affidavit and Agreement” attesting to registration with the EEV / Basic Pilot Program];
- Subcontractor has 100-499 employees [SUBCONTRACTOR must register with the Employment Eligibility Verification/Basic Pilot Program and begin work eligibility verification by July 1, 2008];
- Subcontractor has 99 or fewer employees [SUBCONTRACTOR must begin work eligibility verification by July 1, 2009].

3) In the event that the Subcontractor employs or contracts with any subcontractor in connection with a covered contract the Subcontractor will secure from the subcontractor attestation of the subcontractor’s compliance with O.C.G.A. § 13-10-90 et seq. and Georgia Department of Labor Rule 300-10-1-.02 by the subcontractor’s execution of the subcontractor affidavit shown in Georgia Department of Labor Rule 300-10-1-.02 or a substantially similar affidavit.

4) Subcontractor agrees that, in the event the (insert your company’s name) _____ employs or contracts with any subcontractor in connection with the covered contract to Require “Georgia Security and Immigration Compliance Act” Compliance of its Subcontractors Connected with this Contract. SUB CONTRACTOR agrees to require O.C.G.A. Sections 13-10-90 and 13-10-91 compliance in all written agreements with any subcontractor employed by SUB CONTRACTOR to provide services connected with this contract, as required pursuant to O.C.G.A. 13-10-91., that the (insert company’s name) _____ will secure from each subcontractor the employee-number applicable to the subcontractor.

SUBCONTRACTOR agrees to obtain from any subcontractor that is employed by SUBCONTRACTOR to provide services connected with this contract, the subcontractor’s indication of the employee-number category applicable to the subcontractor.

5) Subcontractor agrees to provide Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, with and secure all affidavits from any subcontractor engaged to perform services under this Contract an executed the “Subcontractor Affidavit,” as required pursuant to O.C.G.A. 13-10-91 and Rule 300-10-1-.08 of the Rules and Regulations of the State of Georgia, which rule can be accessed at <http://www.dol.state.ga.us>.

SUBCONTRACTOR agrees to maintain all records of the subcontractor’s compliance with O.C.G.A. Sections 13-10-90 and 13-10-91 and Chapter 300-10-1 of the Rules and Regulations of the State of Georgia.

SUBCONTRACTOR AFFIDAVIT AND AGREEMENT

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 contracting with Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, 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. 99-6031], 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 pursuant to this contract with Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, subcontractor 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. Subcontractor further agrees to maintain records of such compliance and provide a copy of each such verification to the (name of the public employer) at the time the subcontractor(s) is retained to perform such service.

EEV / Basic Pilot Program* User Identification Number

BY: Authorized Officer or Agent
(Contractor Name)

Date

Title of Authorized Officer or Agent of Subcontractor

Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS

THE _____ DAY OF, 20____

Notary Public
My Commission Expires: _____

*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).

Authority O.C.G.A. 13-10-91

SUB-SUBCONTRACTOR AFFIDAVIT AND AGREEMENT

Subcontractors shall use the following affidavit form, or an affidavit form that is substantially similar to that provided below, to document a sub-subcontractor's compliance with the requirements of O.C.G.A. 13-10-91:

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 (name of contractor) _____ on behalf of **Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture** 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. 99-6031], 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 or Agent
(Contractor Name)

Date

Title of Authorized Officer or Agent of Subcontractor

Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS

THE _____ DAY OF, 20____

Notary Public
My Commission Expires: _____

*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).

Authority O.C.G.A. 13-10-91

END OF SECTION

EQUAL EMPLOYMENT OPPORTUNITY AFFIDAVIT (EEO)

SECTION 00800

(TURN THIS FORM IN WITH THE PROPOSAL)

The following affidavit is to accompany the proposal:

During the performance of this contract, the Subcontractor agrees as follows:

1. The Subcontractor will not discriminate against any employees or applicants for employment because of race, color, religion, sex, or national origin. The Subcontractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Subcontractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The Subcontractor will, in all solicitations or advertisements for employees placed by or on behalf of the Subcontractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
3. The Subcontractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Subcontractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Subcontractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of rules, regulations and relevant orders of the Secretary of Labor.
5. The Subcontractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
6. In the event of the Subcontractor's noncompliance with the nondiscrimination clauses of this contract, or with any of the said rules, regulations or orders, this contract may be canceled, terminated or suspended in whole or in part and the Subcontractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.
7. The Subcontractor will include that portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Subcontractor will take such action with respect to any

subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event a Subcontractor becomes involved in, or is threatened with litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

Subcontractor Name: _____

Address: _____

City/State/Zip Code: _____

Signature: _____

Title: _____

Date: _____

END OF SECTION

Electronic File Transfer, User and Indemnification Agreement

Section 00850

Regardless of the source you obtained the electronic data files from, Harper & Company, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, originated, and have provided you with electronic data files related to this project.

The information we provide in any electronic file is the sole property of Harper & Company, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, has been transmitted for your convenience and is not part of the contract documents. Harper & Company, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, makes no warranties, express or implied, as to merchantability or suitability for any specific purpose, and assumes no responsibility for any damages the recipient may incur through its use or misuse. While we believe these data to be accurate at the time of retrieval, this media and its contents can easily be altered or corrupted either purposely or inadvertently through any number of sources.

The user of this data agrees to use the information at his/her own risk.

The user understands that the digital file may not be updated to include pre-proposal and post proposal addendums, or changes after the award of the contract that may affect the project. It is the contractor's/Subcontractor's responsibility to determine the implement changes and modifications issued by addendum, change order, supplemental instructions, etc., if applicable.

It is the recipient's responsibility to examine these data files for virus contamination prior to use.

For all of the above stated reasons, your company, by accepting delivery of these data hereby agrees to indemnify, defend, and hold harmless Harper & Company, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, their officers, directors, associates, and consulting engineers from any and all liability that may arise or result from the use of this information by your own firm, employees, agents, contractors, or sub-contractors.

Please sign the acceptance provided below and submit. If you have any questions or comments, please do not hesitate to contact us.

Agreed and accepted by company name and intending to be legally bound:

Company/Organization: _____

By: (Signature) _____ Date: _____

Printed Name and Title: _____

Email Address: _____

Project Name: RENOVATIONS TO WW2 HANGAR #2 (North Hangar) And WW2 HANGAR #3 (South Hangar) FOR THE CITY OF DOUGLAS, GEORGIA

SUBCONTRACT AGREEMENT
SECTION 00900

SUBCONTRACT AGREEMENT

Date: March 20, 2024
Cost Code: 16-001

Contract No.: 2024-805-S25
Job No.: 2024-805

CONSTRUCTION MANAGER: Harper & Company Builders, Inc. and
Charles E. Lewis Construction Co., Inc., Joint Venture
P.O. Box 2029
Douglas, GA 31534
912-384-0887
912-384-3889 (Fax)

SUBCONTRACTOR: ABC Subcontractor
123 Example Road
Anywhere, GA 00000
(P) 912/384-0887
(F) 912/384-3889

WORK: Masonry complete, and as more fully Described in Schedule "A"

PROJECT: Renovations To WW2 Hangar #2 (North Hangar) and WW2 Hangar #3
(South Hangar) For The City of Douglas, Georgia

OWNER: City of Douglas, Georgia
224 E. Bryan Street
Douglas, Georgia 31533

ARCHITECT / ENGINEER: N/A

PRIME CONTRACT: Dated 10/03/2018

SUBCONTRACT PRICE: Zero Dollars and 00/100.....(\$0.00)

MONTHLY BILLING DATE: Draws are due in the Construction Manager's office by the 25th of each month.

RETAINED PERCENTAGE: Ten Percent (10%)

PAYMENT & PERFORMANCE BONDS: Required Not Required

(The above terms are incorporated by reference and are more fully explained below.)

Construction Manager, and Subcontractor, with offices at the addresses shown above, agrees for themselves, their successors and assigns as follows:

- WORK.** Subcontractor shall perform and furnish all labor, supervision, services, materials, equipment, tools, scaffolds, hoisting, transportation, storage and all other things necessary to prosecute and complete the work

Initials

SUBCONTRACT AGREEMENT
SECTION 00900

identified and described in, or which can be reasonably inferred from, Schedule A attached hereto (the "Work"), being a portion of the work required of Construction Manager under the Contract between Owner and Construction Manager. The Work shall be performed by Subcontractor in a good and workmanlike manner and strictly in accordance with the Contractor Documents, consisting of the Contract and the plans, specifications (including, but not limited to, general, special and supplemental conditions), addenda and other documents identified in Schedule B attached hereto, and all subsequently and duly issued modifications thereto.

The "Contract Documents" shall mean the Agreement between the Owner and Construction Manager and any plans, specifications, drawings, conditions (general or special), amendments, change order, addenda or modifications in connection with the Agreement between Owner and Construction Manager. The Contract Documents are available for examination by Subcontractor at all reasonable times at the office of Construction Manager. Subcontractor represents and agrees that it has carefully examined and understands the Contract Documents relevant to the Work; has adequately investigated the nature and conditions of the Project site and locality; has familiarized itself with conditions affecting the difficulty of the Work; and has entered into this Subcontract based on its own examination, investigation and evaluation and not in reliance upon any opinions or representations of Construction Manager.

Subcontractor shall be bound to Construction Manager by the terms and conditions of the Contract Documents, including, but not limited to, any dispute resolution procedures, as the same shall be applicable to the Work and this Subcontract, and hereby assumes toward Construction Manager all of the duties, obligations and responsibilities that Construction Manager has by the Contractor Documents assumed toward Owner.

2. **SUBCONTRACT PRICE.** Construction Manager shall pay to Subcontractor, for the satisfactory performance and completion of the Work and performance of all the duties, obligations and responsibilities of the Subcontractor under this Subcontract, the sum set forth above as the Subcontract Price, subject only to additions and deductions as expressly provided in this Subcontract. To the extent that the Work is to be performed on a unit price basis, the Subcontract Price shall be computed in accordance with the unit prices set forth in Schedule C, based on actual quantities determined in accordance with the Contract Documents and this Subcontract. The Subcontract Price and all unit prices shown in Schedule C shall be deemed to include all costs of Subcontractor's performance of the Work as set forth in the Contract Documents, including, but not limited to, the costs of labor, supervision, services, materials, equipment, tools, scaffolds, hoisting, transportation, storage, insurance and taxes, and all overhead and profit.
3. **PROGRESS PAYMENTS:** Within five (5) days after the date of execution of this Subcontract by Subcontractor, Subcontractor shall submit to Construction Manager for Construction Manager's approval a detailed schedule showing a proper cost breakdown (with a proper share of associated overhead and profit) of the Subcontract Price according to the various line items, or parts, of the Work, for use only as a basis for verifying Subcontractor's applications for payment or supporting Construction Manager's applications for payments under the Contract.

On or before each Monthly Billing date, Subcontractor shall submit to Construction Manager, in such form and supported by such data as Construction Manager may require, a progress payment application showing the value of the Work installed ("Completed Work"), plus the value of the material and equipment for incorporation

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SUBCONTRACT AGREEMENT
SECTION 00900

in the Work suitably stored if, and only if, the Contract Documents provide for payments to Construction Manager on that basis as of such date.

Within ten (10) days after receiving a progress payment from Owner under the Contract, Construction Manager shall make a progress payment to Subcontractor equal to the value of the Completed Work and Stored Work as of the corresponding Monthly Billing Date, to the extent approved by Construction Manager and allowed and paid by Owner on account of the Work and after deducting (a) all previous payments, (b) Retained Percentage, which is a percentage equal to the percentage withheld by the Owner from the Construction Manager, times the allowed value of Completed Work and Stored Materials and (c) all charges and backcharges for services, materials, equipment, or other items furnished or otherwise chargeable to Subcontractor. Subcontractor shall not be entitled to receive any payment until this Subcontract has been properly executed and all documents, bonds, and information to be furnished by Subcontractor have been supplied to Construction Manager.

4. **FINAL PAYMENT.** A final payment, consisting of the unpaid balance of the Subcontract Price, shall be made within thirty (30) days after the last of the following to occur: (a) satisfactory completion of the Work by Subcontractor; (b) unqualified acceptance thereof by Architect, Engineer and Owner; (c) full final payment by Owner to Construction Manager under the Contract on account of the Work; (d) furnishing of evidence satisfactory to Construction Manager that there are no claims, obligations, or liens outstanding or unsatisfied for labor, services, materials, equipment, taxes or other items performed, furnished or incurred in connection with the Work; (e) delivery of all guarantees, warranties, bonds, instruction manuals, performance charts, diagrams, as-builts drawings and similar items required of Subcontractor or its suppliers or subcontractors; and (f) delivery of a general release, in a form satisfactory to Construction Manager, executed by Subcontractor running to and in favor of Construction Manager and Owner and such other parties as Construction Manager may require.
5. **PAYMENT CONDITIONS.** Notwithstanding any other provision of the contract, Subcontractor agrees that payment by the Owner to Construction Manager covering the Subcontractor's portion of the work is an express condition precedent to any obligation by Construction Manager to make progress payments to Subcontractor pursuant to paragraph 3 of this Subcontract. Final payment to the subcontractor pursuant to paragraph 4 of this Subcontract will be made only upon receipt of final payment from the Owner because Subcontractor and Construction Manager agree that receipt by the Construction Manager of final payment covering Subcontractor's portion of the final payment shall be an express condition precedent to final payment to the Subcontractor by the Construction Manager. Subcontractor agrees that until and unless any condition precedent described in this paragraph is satisfied, neither Construction Manager nor any of its assigns, agents, guarantors or sureties shall have any obligation to pay Subcontractor.

Subcontractor will receive the payments made by Construction Manager and Subcontractor will hold such payments as a trust fund to be applied first to the payment of laborers, suppliers, subcontractors, and others responsible for the Work. Subcontractor shall, as often as requested by Construction Manager, furnish such information, evidence and substantiation as Construction Manager may require with respect to the extent and value of current progress of the Work and the nature and extent of all obligations incurred by Subcontractor in connection with the Work and all payments made by Subcontractor on account thereof. Subcontractor shall also furnish, as required by Construction Manager in its sole discretion, such partial or final lien waivers or releases as Construction Manager deems necessary to ensure that Subcontractor has paid all persons furnishing any labor, material, or services in furtherance of any Work furnished hereunder. If required by Construction Manager, the furnishing of such lien waivers and releases shall be a condition precedent to any payment hereunder. Construction Manager reserves the right to withhold, as an additional reserve and without limiting its other rights and remedies, an amount sufficient: (a) to defend, satisfy and discharge any asserted claim that Subcontractor (or anyone providing any of the Work hereunder) has failed to make payment for labor, services, materials, equipment, taxes, or other items or obligations furnished or incurred in connection with the Work or has caused damage to the Work or to any other work on the Project; (b) to

Initials

SUBCONTRACT AGREEMENT
SECTION 00900

complete the Work if it appears that funds remaining in this Subcontractor, including Retainage and exclusive of backcharges, are insufficient to complete the work; (c) to protect Construction Manager from the possible consequences of any other breach or default by Subcontractor hereunder. Payment hereunder shall not be evidence of the proper performance or progress of the Work and no payment shall be construed to be acceptance of defective, faulty or improper work or materials.

6. **TIME.** Time is of the essence. Therefore, Subcontractor shall: (a) submit to Construction Manager within five (5) days of the date of execution of this Subcontract a detailed, proposed schedule for the Work for Construction Manager's use in preparing an overall progress schedule for the entire work and its several parts under the Contract; (b) begin the Work promptly upon Construction Manager's order to do so; (c) coordinate and perform the Work, and its several parts, diligently and promptly and in such order and sequence as Construction Manager may from time to time direct and as will assure the efficient and timely prosecution of the Work, and will not delay completion of the entire work and its several parts under the Contract; (d) Subcontractor shall perform all of his work in accordance with the Construction Manager's project schedule as amended by the Construction Manager from time to time; and (e) at all times furnish sufficient, qualified and competent forces and supervision, and adequate, conforming and usable materials, equipment, plant, tools and other necessary things to achieve progress according to Construction Manager's current progress schedule, including any specific schedule for Subcontractor's Work attached hereto, as Schedule D, and any revisions thereof by Construction Manager.

Without limiting the generality of the foregoing, Subcontractor shall: (a) submit, with its proposed schedule, information showing the time required to prepare and approve shop drawings, to fabricate and deliver materials and equipment, and to install the Work; (b) order, as soon as possible, all materials required for performance of the Work in order to avoid delays caused by strikes, transportation or unavailability; (c) furnish Construction Manager within ten (10) days of the date of execution of this Subcontract a list of major materials and equipment required for the Work, showing the name, address and telephone number of the supplier and the date on which such material and equipment is expected to be delivered to the Project site; (d) furnish Construction Manager, upon issuance, a copy of each major purchase order and subcontract (with price information deleted); (e) cause a qualified home office supervisory representative (while Subcontractor has forces at the Project site and for two weeks prior thereto) to attend job progress meetings; and (f) notify Construction Manager immediately by telephone and confirm in writing within seventy-two (72) hours, if Subcontractor finds that any item cannot be delivered as required to maintain Construction Manager's Project schedule. Subcontractor also agrees to be bound by such modifications to the Project schedule as are discussed at the job progress meetings.

7. **EXTENSIONS OF TIME.** Should Subcontractor, without any fault or neglect on its own part, be delayed in the completion of the Work by the fault or neglect of Construction Manager, Subcontractor, as its sole remedy, shall be entitled only to a reasonable extension of time. Subcontractor will not be entitled to recover any compensation or damages for delay except as provided for below in this paragraph 7. Should Subcontractor, without any fault or neglect on its own part, be delayed in the completion of the Work by an act of God or such other cause beyond the control of Construction Manager and Subcontractor which entitles Construction Manager to an extension of time from Owner, Subcontractor shall be entitled to a reasonable extension of time to be determined in accordance with this Subcontract and the Contract Documents. In no event shall Subcontractor be entitled to compensation or damages for any delay in the commencement, prosecution, or completion of the Work or for any schedule adjustments resulting therefrom, except to the extent that Construction Manager shall receive such compensation or damages from Owner or other third party. Notwithstanding anything to the contrary in the Contract Documents or this Subcontract, Subcontractor shall not be entitled to an extension of time unless a written notice of delay shall have been delivered to Construction Manager within seventy-two (72) hours after commencement of the claimed delay.

8. **CHANGE ORDERS.** Owner has reserved the right under the Contract Documents to require Construction Manager to make changes in the Work, including additions thereto and deletions therefrom. Without notice

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SUBCONTRACT AGREEMENT
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to any surety and without invalidating this Subcontract, Construction Manager may from time to time, by written order ("Change Order") to Subcontractor, make changes in the Work to the same extent and in the same manner as may be required of Construction Manager by Owner under the Contract Documents. Subcontractor shall thereupon perform the changed Work in accordance with the terms of this Subcontract and the Change Order.

Where a Change Order is issued pursuant to a change required by the Owner, the Subcontract Price shall be adjusted by the net amount of any direct savings and direct cost, plus Profit Percentage, attributable to the Change Order, and the time of performance of the Work may be adjusted according to the Contract Documents, subject, however, in each case to the following limitations: (a) Price and time adjustments hereunder shall be limited to the amount and extent of adjustments actually allowed Construction Manager under the Contract Documents (less, in the case of Price, any overhead, profit or similar markup allowed by Owner for Construction Manager's account); (b) where the Work affected by Change Order is the subject is unit prices under Schedule C attached hereto, the Price adjustment shall be limited to the amounts obtained by applying such unit prices to the actual increase or decrease in the quantity of units due to the change; and (c) the amount allowable for all overhead and profit shall be limited to the product obtained by multiplying the Profit Percentage by the net amount of Subcontractor's direct savings and direct cost. As used in this Subcontract, Subcontractor's direct savings and direct cost shall mean and be limited to the actual amount of the following: cost of materials, including sales tax and cost of delivery ; cost of labor, including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; worker's compensation insurance; bond premiums if and to the extent actually increased; and actual rent not greater than the rent charged in the locale, or reasonable value of Subcontractor-owned equipment machinery.

If the parties are unable to agree upon adjustments, Construction Manager may issue a written directive to Subcontractor to perform such work; any adjustment to the Subcontract Price or time shall be subject to ultimate determination in accordance with this Subcontract; and Subcontractor shall, nonetheless, proceed immediately with the changed Work. Subcontractor shall keep a detailed account of the direct savings and direct cost of such changed Work. In no event shall Subcontractor proceed with changed or extra Work without a Change Order or written directive as described in this paragraph 8, and Construction Manager shall not be liable for any additional costs incurred or delays encountered in the performance of such a written Change Order.

9. **BONDS.** If so indicated on page 1 hereof, Subcontractor shall furnish, within five (5) days of the date of transmission of this Subcontract to Subcontractor, a performance bond and a payment bond, which are included in the Price, and each in a penal sum equal to the Price, on Construction Manager's standard forms and with surety or sureties satisfactory to Construction Manager. Subcontractor agrees to notify its surety or sureties of increases in the Price and to take such action as is required to have the penal amount of the bonds furnished pursuant to this paragraph increased correspondingly.
10. **INSURANCE.** Before commencing the Work and until completion and final acceptance thereof by Owner, Subcontractor shall obtain and maintain, at its expense, at least the insurance coverages specified in Schedule E attached hereto, all from companies and in form and substance acceptable to Construction Manager, from each insurance company showing the required insurance coverages to be in force and stating that the insurance coverages will not be canceled or changed except upon at least thirty (30)days written notice thereof to Construction Manager and Owner. To the extent that Construction Manager and Subcontractor maintain insurance coverages for loss or damage to property, each hereby waives subrogation of claims against the other, the Owner, and their agents, employees and servants.

Builder's Risk Insurance covering the Project is to be provided as indicated in Schedule E. Subcontractor hereby acknowledges its obligation for any loss to its Work, including stored materials, paid for or not, whether or not such loss is reimbursable by Builder's Risk Insurance, including subcontractor's proportionate

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share of any deductible under the policy. However, nothing contained in this paragraph is intended to prevent or deny Subcontractor from asserting claims for unreimbursed losses against any person or party responsible therefore, except as otherwise provided hereinabove.

11. **INDEMNITY.** To the full extent permitted by law, Subcontractor agrees to defend, indemnify and save harmless Construction Manager and Owner, as well as any other parties which Construction Manager is required under the Contract Documents to defend, indemnify and hold harmless, and their agents, servants and employees, from and against any claim, cost, expense, or liability (including attorneys' fees, expert witness fees, court costs, and similar costs), attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of property (including loss of use thereof), caused by arising out of, resulting from, or occurring in connection with the performance of the Work by Subcontractor, its subcontractors and suppliers, or its agents, servants, or employees, whether or not caused in part by the active or passive negligence or other fault of a party indemnified hereunder; provided, however, Subcontractor's duty hereunder shall not arise if such injury, sickness, disease, death, damage, or destruction is caused by the sole negligence of a party indemnified hereunder. Subcontractor's obligation hereunder shall not be limited by the provisions of any worker's compensation or similar act.

Should Owner or any other person or entity assert a claim or institute a suit, action, or proceeding against Construction Manager involving the manner or sufficiency of the performance of the Work, Subcontractor shall, upon request of Construction Manager, promptly assume the defense of such claim, suit, action or proceeding at Subcontractor's expense, and Subcontractor shall indemnify and save harmless Construction Manager as well as anyone to be defended, indemnified and held harmless by Construction Manager and its or their agents, servants and employees, from and against any liability, loss damage or expense arising out of or related to such claim, suit, action or proceeding.

12. **ASSIGNMENT.** Subcontractor shall not assign this Subcontract, or any monies due or to become due hereunder, or subcontract any substantial part of the Work without the prior written consent of Construction Manager. No assignment by Subcontractor or any right hereunder shall be effective and any such attempt shall be null and void. No third party shall have any right to enforce any right of Subcontractor under this Subcontract.

13. **COMPLIANCE.** Subcontractor shall, at its own expense, obtain all necessary licenses and permits pertaining to the Work and comply with all statutes, ordinances, rules, regulations and orders of any governmental or quasi-governmental authority having jurisdiction over the Work or the performance thereof, including, but not limited to, those relating to safety, wages, discrimination and equal employment opportunity. Subcontractor shall promptly correct any violations of such statutes, ordinances, rules, regulations and orders committed by Subcontractor, its agents, servants and employees; and Subcontractor shall receive, respond to, defend, indemnify, and save harmless Construction Manager and Owner, as well as anyone to whom Construction Manager is obligated, and their agents, servants and employees from and against any loss liability or expense arising from any such violations and any citations, assessments, fines, or penalties resulting therefrom:

- (a) Subcontractor shall not discharge or fail or refuse to hire any individual, or otherwise discriminate against any individual with respect to his compensations, terms, conditions, or privileges or employment, because of such individual's race, color, religion, sex, or nation origin. Nor shall Subcontractor limit, segregate or classify his employees in any way which would deprive or tend to deprive any individual's race, color, religion, sex or national origin.
- (b) The Subcontractor, with regard to the work performed by it after award and prior to completion of the contract work, will not discriminate on the ground of race, color, religion, sex, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Subcontractor will not participate either directly or indirectly in discrimination prohibited by any applicable regulations, including employment practices.

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- (c) In all solicitation either by competitive bidding or negotiation made by the Subcontractor for work to be performed under a subcontract, including procurements or materials or equipment, each potential subcontractor or supplier shall be notified by the Subcontractor of the Subcontractor's obligations under this contract and any applicable regulations relative to non-discrimination on the ground of race, color, religion, sex or national origin.
- (d) The Subcontractor will provide all information and reports required by any applicable regulations or orders and instruction issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined to be pertinent to ascertain compliance with such regulations, orders and instructions. Where any information required of Subcontractor is in the exclusive possession of another who fails or refuses to furnish this information, the Subcontractor shall so certify to the Construction Manager, and shall set forth what efforts it has made to obtain the information.
- (e) The Subcontractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of these non-discrimination clauses, as and required by the Contract Documents.
- (f) The Subcontractor will, in all solicitations or advertisements for employees state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- (g) The Subcontractor will comply with all provisions of any applicable Executive Order and the valid rules regulations and relevant orders of the President's Committee on Equal Employment Opportunity and as required by the Contract Documents.
- (h) The Subcontractor will furnish all information and reports required by any applicable Executive Order, and by the rules, regulations and orders of the said Committee, or pursuant thereto, and will permit access to his books, records, and accounts by any authorized government agency and the Committee for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- (i) In the event of the Subcontractor's non-compliance with the non-discrimination clauses and requirements of this contract or with any of the said rules, regulations or orders, this Subcontract may be canceled, terminated, or suspended in whole or in part.
- (j) The Subcontractor will include provision of the foregoing paragraphs in every Subcontract or Purchase Order unless exempted by rules, regulations or orders of the President's Committee on Equal Employment Opportunity, so that such provisions will be binding upon each subcontractor or vendor.

14. **SAFETY.** Subcontractor agrees that the prevention of accidents to workers engaged upon or in the vicinity of the Work is its responsibility, even if Construction Manager establishes a safety program for the entire Project. Subcontractor shall establish and implement safety measures, policies and standards conforming to those required or recommended by governmental or quasi-governmental authorities having jurisdiction and by Construction Manager and Owner, including but not limited to, any requirements imposed by the Contract Documents. Subcontractor shall comply with the reasonable recommendations of insurance companies having an interest in the Project and shall stop any part of the Work which Construction Manager deems unsafe until corrective measures satisfactory to Construction Manager have been taken. Construction Manager's failure to stop Subcontractor's unsafe practices shall not relieve Subcontractor of its responsibility therefrom.

15. **CLEANING UP.** Subcontractor shall, at its own expense: (a) keep the premises at all times free from waste materials, packaging and other debris accumulated in connection with the Work, collecting and removing such debris from the job site on a daily or other basis requested by Construction Manager; (b) at the completion of the Work in each area, sweep and otherwise make the Work and its immediate vicinity "broom-clean"; (c) remove all of its tools, equipment, scaffolds, temporary structures and surplus materials as directed by Construction Manager at the completion of the Work; and (d) at final inspection, clean and prepare the work for acceptance by Owner. Subcontractor agrees to provide all cleaning and cleanup required under the Contract Documents pertaining to the Work to the extent such requirements are in excess to those contained in this paragraph.

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16. **TEMPORARY FACILITIES.** Temporary facilities and services shall be provided in accordance with Schedule F attached hereto.
17. **QUALITY.** Subcontractor shall at all times provide first quality, new materials (unless otherwise specified in the Contract Documents) and workmanship conforming to the Contract requirements. Subcontractor shall at all times provide proper facilities and an opportunity for the inspection of the Work by Construction Manager, Architect, Engineer, and Owner and their representatives. If the Contract Documents require the furnishing of testing or test reports of the Work, Subcontractor shall provide testing services by an approved authority, and shall provide any remedial work and retesting required to show the Work complies with Contract requirements.
- Subcontractor shall, within twenty-four (24) hours after receiving written notice from Construction Manager or Architects/Engineer, proceed to take down and remove all portions of the Work which Construction Manager or Architect/Engineer shall have condemned as unsound, improper, or in any way failing to conform to the Contract Documents or this Subcontract and shall replace the same with proper and satisfactory Work and make good all work damaged or destroyed thereby. Construction Manager's failure to discover or notify Subcontractor of defective or nonconforming Work at the time the Work, or any portion thereof, is performed or completed shall not relieve Subcontractor of full responsibility for replacement of the defective or nonconforming Work and all damages resulting therefrom. If Owner elects to accept defective or nonconforming Work, Construction Manager may require an appropriate adjustment in the Subcontract Price to the extent required of Construction Manager.
18. **GUARANTEES.** Subcontractor warrants and guarantees the Work to the full extent provided for in and required by the Contract Documents. Without limiting the foregoing or any other liability or obligation with respect to the Work, Subcontractor shall, at its expense and by reason of its express warranty, make good any faulty, defective, or improper parts of the work discovered within one (1) year from the date of acceptance of the Project by the Architect/Engineer and Owner or within such longer period as may be provided in the Contract Documents. Subcontractor warrants that all materials furnished hereunder meet the requirements of the Contract Documents and warrants that they are both merchantable and fit for the purposes for which they are to be used under the Contract Documents.
19. **SUBMITTALS.** Subcontractor shall immediately prepare or obtain and promptly submit to Construction Manager, within fifteen (15) days of receipt of this Subcontract Agreement, shop and erection drawings, samples, product data, catalog cuts, laboratory and inspection reports and engineering calculations, all as may be required by the Contract Documents or as may be necessary or appropriate to describe the details of the Work. Approval of drawings or other submittals by Construction Manager or Architect/Engineer shall not relieve Subcontractor of its obligation to perform the Work in strict accordance with the Contract Documents or its responsibility for the proper matching of the Work to contiguous work.
20. **PERFORMANCE.** The Work shall be performed and furnished under the direction of and to the satisfaction of Architect/Engineer and Construction Manager, but Subcontractor shall not thereby be relieved of its obligation to supervise the Work, using its best skill and attention, or its obligation to perform the Work as provided for herein. Subcontractor shall be bound by the interpretations and decisions of Architect/Engineer and Owner to the same extent as Construction Manager may be bound thereby under the Contract Documents. Subcontractor shall promptly and carefully check all Contract Documents and notify Construction Manager of any discrepancies or conflicts before performing any Work, and Subcontractor shall be responsible for any extra costs resulting from its failure to do so. Subcontractor shall cooperate with Construction Manager and other subcontractors in the preparation of coordination drawings where required by Construction Manager.
21. **LIENS.** Subcontractor shall defend, indemnify and save harmless Construction Manager, Construction Manager's sureties and Owner from any lien or claim of lien filed or maintained by any laborer, materialman,

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subcontractor, or other person or entity directly or indirectly acting for, through, or under Subcontractor, against the Project or any part thereof or any interest therein or against any monies due or to become due from Owner to Construction Manager or from Construction Manager to Subcontractor. Without limiting the foregoing, Subcontractor shall cause any such lien or claim of lien to be satisfied, removed, or discharged by bond, payment, or otherwise within such time as provided under the Contract Documents or ten (10) days from the date of receipt by Construction Manager, whichever is shorter.

22. **PATENTS.** Subcontractor shall defend, indemnify and save harmless Construction Manager and Owner, from and against any claim, cost, expense or liability (including attorney's fees, expert witness fees, court costs and other similar costs) arising out of or resulting from infringement or alleged infringement of any patent rights attributable to the Work, except to the extent that Owner may have assumed responsibility therefore under the Contract Documents.
23. **LABOR.** Subcontractor agrees that, where its Work is stopped, delayed or interfered with by strikes, slow-downs, or similar interruptions or disturbances (including cases where Subcontractor's employees are engaged in a work-stoppage solely as a result of a labor dispute involving Construction Manager or others and not in any manner involving Subcontractor), Construction Manager shall have the rights and remedies provided for in Paragraphs 25 and 26. Subcontractor shall maintain and exercise control over all employees engaged in the performance of the Work, and Subcontractor shall, to the extent permitted by law, remove or cause to be removed from the Project any employee whose presence is detrimental to the orderly prosecution of the Work. Subcontractor shall comply with all instructions by Construction Manager relating to the ingress and egress of Subcontractor's employees, materialmen and suppliers to the Project and shall take all necessary steps to restrain and enjoin any illegal picketing, demonstrating, violence, or similar activity against Subcontractor at the Project.
24. **DAMAGE.** Construction Manager shall not be liable or responsible for loss or damage to the equipment, tools, facilities, or other personal property owned, rented, or used by Subcontractor, or anyone employed by or through Subcontractor, in the performance of the Work; and Subcontractor shall maintain such insurance coverages and take such protective action as Subcontractor deems desirable with respect to such property. Except to the extent of any proceeds received by Construction Manager for the benefit of Subcontractor under a policy of builder's risk or fire insurance, Construction Manager shall not be liable or responsible for any loss or damage to the Work, and Subcontractor shall be responsible for the correction or restoration of any such loss or damage to the Work, or to the work of Construction Manager or any other subcontractor, resulting from the operations of Subcontractor or its subcontractors, agents, servants, or employees hereunder. Subcontractor shall take all reasonable precautions to protect the work from loss or damage prior to acceptance by Owner.
25. **DEFAULT.** Should Subcontractor at any time: (a) fail to supply the labor, materials, equipment, supervision and other things required of it in sufficient quantities and of required quality to perform the Work with the skill, conformity, promptness and diligence required hereunder; (b) cause interference, stoppage or delay to the Project or any activity necessary to complete the Project; (c) become insolvent; or (d) fail in the performance or observance of any of the covenants, conditions, or other terms of this Subcontract, then in any such event, each of which shall constitute a default hereunder by Subcontractor, Construction Manager shall, after giving Subcontractor notice of default and forty-eight (48) hours within which to cure, have the right to exercise any one or more of the following remedies:
- (i) require that Subcontractor utilize, at its own expense, overtime labor (including Saturday and Sunday work) and additional shifts as necessary to overcome the consequences or any delay attributable to Subcontractor's default;
 - (ii) attempt to remedy the default by whatever means Construction Manager may deem necessary or appropriate, including, but not limited to, correcting, furnishing, performing, or otherwise completing

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the Work, or any part thereof, by itself or through others (utilizing, where appropriate, any materials and equipment previously purchased for that purpose by Subcontractor) and deducting the cost thereof (plus an allowance for administrative burden equal to fifteen percent (15%) of such costs) from any monies due or to become due to Subcontractor hereunder;

- (iii) After giving Subcontractor an additional forty-eight (48) hours notice (at any time following the expiration of the initial forty-eight (48) hours notice), terminate this Subcontract without thereby waiving or releasing any rights or remedies against Subcontractor or its sureties and, by itself or through others, take possession of the Work and all materials, equipment, facilities, plant, tools, scaffolds and appliances of Subcontractor relating to the Work, for the purposes of completing the Work and securing to Construction Manager the payment of its costs (plus an allowance for administrative burden equal to fifteen percent (15%) of such costs) and other damages under this Subcontract and for the breach thereof, it being intended that Construction Manager shall, for the stated purposes, be the assignee of, and have a security interest in, any funds relating to any other contract, subcontract or agreement between Construction Manager and Subcontractor and/or the property described above to the extent located on the Project site and/or stored materials in accordance with this Subcontract (and Construction Manager may at any time file this Subcontract as a financing statement under applicable law); or
- (iv) recover from Subcontractor all losses, damages, penalties and fines, whether actual or liquidated, direct or consequential (including without limitations any increase in Construction Manager's cost of insurance resulting from Subcontractor's failure to maintain insurance coverages required hereunder), and all reasonable attorneys' fees, expert witness fees, court costs and other similar costs suffered or incurred by Construction Manager by reason of or as a result of Subcontractor's default.

Should this Subcontract be terminated for default, Subcontractor shall assign all purchase orders and subcontracts to Construction Manager if Construction Manager, in its sole and absolute discretion, requests such assignments. Subcontractor agrees to incorporate such provisions in its agreements with suppliers and subcontractors to effectuate this provision. Nothing herein shall create any duty on the party of Construction Manager to accept the assignment of any purchase order or subcontract hereunder.

After completion of the Work by the exercise of one or more of the above remedies and acceptance of the Work by the Architect/Engineer and full payment by the Owner, Construction Manager shall promptly pay Subcontractor any undisbursed balance of the Subcontract Price, if any, after deducting the cost of completion of the Work, plus the allowance for administrative burden, together with any other damages or losses sustained or incurred by Construction Manager. If the cost of completion of the Work, plus the allowance for administrative burden, together with any other damages or losses sustained or incurred by Construction Manager, shall exceed the undisbursed balance of the Subcontract Price, Subcontractor and its guarantors, surety, or sureties shall pay the difference within fifteen (15) days of written demand by Construction Manager.

The foregoing remedies shall be considered separate and cumulative and shall be in addition to every other remedy given hereunder or under the Contract Documents or now or hereafter existing at law or in equity. Subcontractor's guarantors and surety or sureties agree to be bound to Construction Manager with respect to such remedies notwithstanding any provision of the bonds provided pursuant to paragraph 9 hereof.

Except as limited by this Subcontract, Subcontractor shall have the rights and remedies available at law or in equity for a breach of this Subcontract by Construction Manager. Any default by Construction Manager shall be deemed waived unless Subcontractor shall have given Construction Manager written notice thereof within five (5) days after the occurrence of such default. Subcontractor shall not be entitled to stop the Work or terminate this Subcontract on account of Construction Manager's failure to pay an amount claimed hereunder (including payment for claimed changes in the Work) so long as Subcontractor shall not have adequately

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substantiated the amount due or so long as a good faith dispute exists as to the amount due. Subcontractor shall not be entitled to stop the Work on account of a default by Construction Manager unless such default shall have continued for more than seven (7) days after Construction Manager's receipt of written notice of such default from Subcontractor, specifying in detail the nature of the default and the steps necessary to cure the claimed default.

Subcontractor shall not be entitled to terminate this Subcontract except for a substantial and material breach by Construction Manager which shall have continued, incurred, for at least an additional thirty (30) days after (a) Subcontractor shall have stopped working in accordance with this paragraph and (b) Construction Manager shall have received thirty (30) days written notice of Subcontractor's intention to terminate the Subcontract.

Should any termination for default under paragraph 25 (iii) be determined to be invalid, improper or wrongful, such termination shall be deemed to have been a termination for convenience as provided in paragraph 27 below.

26. **DISPUTES.** In the event of any dispute between Subcontractor and Construction Manager arising out of or relating to this Subcontract, or the breach thereof, which involves the correlative rights and duties of Owner, the dispute shall be decided in accordance with the Contract Documents, and Subcontractor, its suppliers, subcontractors and its guarantors, surety, or sureties, shall be bound to Construction Manager to the same extent that Construction Manager is bound to Owner by the terms of the Contract Documents and by any decisions or determination made under the Contract Documents by an authorized person, board, court, arbitration, or other tribunal. Subcontractor shall be solely responsible for the preparation of any information or testimony hereunder unless Construction Manager notifies Subcontractor in writing of Construction Manager's intention to provide attorneys and provide for the presentation of any case governed by this paragraph, in which case Subcontractor shall have the duty to cooperate with Construction Manager.
- (a) Agreement to Mediate and Arbitrate. All claims, disputes, and other matters in question arising out of or relating to this subcontract or the performance or breach thereof, except for claims which have been waived by the acceptance of final payment, shall be initially subject to mediation administered by the American Arbitration Association under its prevailing Construction Industry Mediation Rules as a condition precedent to prosecuting arbitration or litigation as provided in this subcontract. If such claims, disputes, and other matters in question are not decided by mediation, they shall be decided by arbitration in accordance with the prevailing Construction Industry Arbitration Rules of the American Arbitration Association, unless the parties mutually agree otherwise. Subcontractor recognizes, agrees, and understands that labor, materials, equipment, tool and/or services from other states will be provided to the project, thus making this Agreement to Arbitrate subject to the Federal Arbitration Act. This Agreement to Mediate and Arbitrate shall be specifically enforceable under the prevailing mediation and arbitration law. Unless precluded by controlling law, all arbitration proceedings between Construction Manager and Subcontractor shall be governed as set forth in Subparagraph 29(a) and conducted in Douglas, Georgia.
 - (b) Notice of Demand. Demand for Arbitration shall be filed in writing with the other party to this Agreement and with the American Arbitration Association. Demand for Arbitration shall be made within a reasonable time after the claim, dispute or other matter in question arises, but in no event shall it be made after the date when institution of legal or equitable proceedings based upon such claim, dispute or other matter in question would be barred by the applicable status of limitation.
 - (c) Award. The Arbitration Award shall be final and judgment may be entered upon it in accordance with the applicable law in any court having jurisdiction.

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- (d) Work Continuation. Unless otherwise agreed in writing, Subcontractor shall carry on Subcontractor's work and maintain the schedule of work during or pending any mediation or arbitration, and conversely, Construction Manager shall continue to perform its obligations under this agreement.
- (e) No Limitation of Rights or Remedies. Nothing in Article 26 shall limit any rights or remedies not otherwise expressly waived by Subcontractor, which Subcontractor may have under lien laws or payment bonds; provided, that mediation or arbitration under this Article 26 is a condition precedent to any such rights of Subcontractor to institute any action in any court against Construction Manager or its surety or the Owner, and if such action is instituted, Subcontractor agrees that it shall be stayed pending arbitration.
- (f) Same Arbitrators. To the extent not prohibited by their contracts with other parties, the claims and disputes of Owner, Construction Manager, Subcontractor and others involving a common question of fact or law shall, at Contractor's option, be heard by the same arbitrator(s) in a single proceeding.
- (g) Arbitrability. In any dispute arising out of the application of this Article 26, questions of arbitrability or consolidation of proceedings shall be decided by the appropriate court and not by arbitration.

27. **EARLY TERMINATION.** If Owner terminates the Contract or stops the Work for any reason other than the sole default of Construction Manager, Construction Manager may terminate this Subcontract or stop the Work for the same reason, and Subcontractor's rights and remedies, including the basis for payment of any unpaid portion of the Price, shall be limited to the corresponding rights and remedies available to Construction Manager under the Contract Documents and controlled by paragraph 26 above.

Further, in its sole discretion and without notice to any guarantors, surety, or sureties, Construction Manager may terminate this Subcontract for its convenience upon the giving of written notice to Subcontractor. In no event shall Subcontractor be entitled to consequential damages or loss of profits on portions of the Work not yet performed. If terminated for convenience, Subcontractor shall be entitled to be paid all costs of the work provided hereunder, including reasonable and necessary costs of termination as determined in accordance with the method set forth in paragraph 8 above, together with the Profit Percentage attributable to the costs so determined. Payment shall be made in accordance with the subject to the requirements of paragraph 4.

28. **SETOFF.** If Subcontractor is, or hereinafter begins, performing any work for Construction Manager other than the Work under this Subcontract and the unpaid balance of the Subcontract Price becomes insufficient to complete such Work or compensate the Construction Manager for any damages or deficiencies by the Subcontractor in the performance of the other work, Subcontractor hereby consents and agrees to allow the Construction Manager, in its sole discretion and judgment, to set off any of Construction Manager's claims against any funds due, or which may become due Subcontractor under any other agreement with Construction Manager, or any subcontract on any other project. No refusal or failure of Construction Manager to exercise its rights hereunder shall constitute the basis of any right or claim against Construction Manager.

29. **MISCELLANEOUS.**

- a. All matters relating to the validity, performance, or interpretation of this Subcontract shall be governed by the law of the State of Georgia.
- b. This Subcontract, including the documents incorporated herein by reference, embodies the entire agreement of the parties and supersedes all negotiations, agreements, representations and understandings relating to the subject matter hereof.

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- c. This Subcontract may not be changed in any way except as herein provided or by writing signed by a duly authorized officer or agent of each party. No requirement of this Subcontract may be waived except in writing signed by a duly authorized officer of the waiving party.
- d. The provisions of this Subcontract and the Contract Documents are intended to supplement and complement each other. If, however, any provision of this Subcontract irreconcilably conflicts with a provision of the Contract Documents, the provision imposing the greater duty on Subcontractor shall govern.
- e. All written notices provided for in this Subcontract or in the Contract Documents shall be deemed given if delivered personally to a responsible representative of the party, or sent by telegram or by regular mail or fax or by electronic mail to the party at its address specified herein.

30. **SEVERABILITY.** Each of the articles, paragraphs, sections, subsections or portions thereof of this Subcontract are severable and the invalidity or unenforceability or any one or more of the articles, paragraphs, sections, subsections or portions thereof of this Subcontract shall not affect the validity or enforceability of the remaining articles, paragraphs, sections, subsections or portions thereof.

IN WITNESS WHEREOF, the parties have duly executed this Subcontract as of the date first above written.

Construction Manager

Attest:

HARPER & COMPANY BUILDERS, INC. AND CHARLES E. LEWIS CONSTRUCTION CO., INC., JOINT VENTURE

Notary Public, State of Georgia

By: _____

Title: _____

Date: _____

Subcontractor

ABC Subcontractor

Attest:

Notary Public, State of _____

By: _____

Title: _____

Date: _____

Subcontractor Check One:

- _____ Corporation
- _____ Partnership/Joint Venture
- _____ Individual

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Subcontractor's Federal Employer Identification No. _____

(If no Federal Identification Number, business Owner's Social Security No. _____)

Per I.R. S. Statute 34029s), 20% of each payment is required to be withheld and remitted to the I.R.S. if Federal Employer Identification Number or Social Security Number is not provided. This withholding amount will be in addition to subcontract retainage.

Construction Manager will hold 2% if Sales Tax certificate is not received. This amount will be in addition to the subcontract retainage.

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**Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc.,
Joint Venture**

Subcontract Agreement No. 2024-805-S25

Schedule A

SCOPE OF WORK

Subcontractor shall furnish all of the labor, materials and equipment, and perform all of the work, required for a complete **Existing Electrical Demolition, New Electrical and Low Voltage** installation, and also as required by the Project Plans, Division 0 "Bidding and Contract Requirements", Division 1 "General Requirements", Division 16 "Electrical" of the Project Specifications, Addendum No. 1 dated Oct. 9, 2018, Addendum No. 2 dated Oct. 22, 2018, Addendum No. 3 dated Oct. 24, 2018, Addendum No. 4 dated Oct. 26, 2018, Addendum #5 dated October 29, 2018, Addendum #6 dated Oct. 29, 2018, Clarification #1 dated Oct. 30, 2018 and Clarification #2 dated Oct. 30, 2018. Be advised deductive alternates #1 and #3 as described in addendum #2 were accepted by the Owner and are hereby made a part of this contract as it relates to this scope of work. This subcontractor is responsible for performing their Scope of Work based on the entire Contract Documents.

Specifically included, but not limited to, shall be the following:

1. Procure all permits and licenses for your portion of work
2. Coordinate the installation of your work with the Architect, Engineer, Construction Manager, other Subcontractors, local and state building inspectors, and utility companies that may serve any portion of your work. No change orders will be issued due to the lack of coordination between the various disciplines.
3. Furnish for approval one (1) set of electronic and two (2) hard copies of shop drawings and submittal data within seven (7) calendar days of the date of this contract.
4. Subcontractor shall furnish close out documents, as required by contract documents, within seven (7) calendar days of completing this subcontractors scope of work. Subcontractor shall keep a set of as-built drawings on the project site at all times, and modify as-built drawings on a daily basis. Close out documents shall be submitted and approved prior to final billing being submitted.
5. Construction Manager shall receive an executed subcontract agreement and current insurance certificate before any work shall be performed by the Subcontractor and before any payments can be made to the Subcontractor.
6. Subcontractor is to take precaution to protect existing conditions. All existing items damaged by this subcontractors work force will be repaired and or replaced by this subcontractor. If deemed necessary the cost of such repair will be deducted from the remaining monies owned this subcontractor.

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SUBCONTRACT AGREEMENT
SECTION 00900

7. Subcontractor shall provide demonstration and training of equipment to the Owner's staff as required by the Contract Documents. Such demonstration and training shall be documented in writing, and shall include a list of attendees.
8. Subcontractor shall perform work in phases and as required by the project schedule and revised project schedules.
9. Subcontractor agrees and acknowledges to perform his work in accordance with latest OSHA standards. Any fines issued, by any governmental agency, against Construction Manager, due to negligence by this Subcontractor, the fine amount shall be deducted from monies due to Subcontractor.
10. Subcontractor shall perform all layout work related to this Subcontract.
11. The Construction Manager reserves the right to issue joint checks to all of the sub-subcontractors and/or material suppliers hired by this subcontractor.
12. Subcontractor shall furnish and install temporary barricades and warning devices where hazards exist, to ensure the safety of pedestrians and site workers, and to prevent damage to adjacent buildings and facilities to remain.
13. Subcontractor shall be responsible for receiving, unloading and properly storing his material on site. Only material properly stored on site will be paid for. Stored material shall be made available for inspection. The owner will not pay for material stored off site.
14. Subcontractors shall wear hard hats and personal protective equipment at all times.
15. Subcontractor shall perform daily clean-up of his construction debris and properly dispose of said material off-site.
16. Subcontractor shall perform and/or pay for any and all testing as required by the specifications for the work of this subcontract.
17. Subcontractor shall perform construction reviews, inspection and testing as specified.
18. Subcontractor agrees to man the project with a competent superintendent and labor in order to maintain schedule. Subcontractor cannot change superintendent without written permission from Construction Manager.
19. Subcontractor shall be required to work as required to maintain Construction Schedule.
20. Subcontractor shall not employ any person on these projects that have a criminal record involving a major crime such as murder, robbery, assault, etc. (minor events such as a traffic tickets etc are not included in this requirement) anyone who has a record as a sex offender, or anyone who has been terminated from employment by the Telfair County Board of Education.
21. All employees of subcontractor that are on site must pass a background check thru the local sheriff's office.
22. All of the subcontractor's employees shall wear a name badge at all times when on the project site. Construction Manager shall provide one badge per employee.
23. Subcontractor agrees to attend bi-weekly jobsite progress meetings. Subcontractor's superintendent and/or project manager shall attend.
24. Subcontractor shall use an application for payment form, furnished by the Construction Manager, when submitting monthly pay request.
25. Subcontractor agrees and acknowledges that clean up is of the utmost priority and shall be performed on a continual timely basis. In the event Subcontractor fails to keep the

Initials

SUBCONTRACT AGREEMENT
SECTION 00900

project clean to the satisfaction of the Construction Manager. The Construction Manager will employ any and all necessary manpower needed in order to perform such cleanup, and all associated cost will be deducted from any remaining monies owed to Subcontractor.

26. This is an all inclusive turnkey contract. Subcontractor is responsible for all materials, quantities, tools, equipment, manpower, means and methods related to scope of work. Subcontractor will provide all materials and accessories as required per the contract drawings, related specifications, supplemental drawings and associated addenda. All work required for a complete functioning system is included whether specifically listed or not.
27. All materials shall be installed adhering to the highest quality and workmanship standard.
28. No dust shall be allowed when saw cutting material. Use wet saw methods per OSHA standards. Subcontractor shall be responsible for all clean up.
29. Subcontractor shall provide dumpster and disposal fees as required for proper removal of his debris.
30. Subcontractor shall allow all work to be inspected and tested as per Project Specifications. Work that fails inspection and/or testing shall be corrected at no additional cost to Construction Manager by Subcontractor.
31. Subcontractor shall notify Construction Manager a minimum of seventy-two hours before time required for inspection by Construction Manager, Architect, Engineer and/or Testing Firm.
32. Subcontractor shall disconnect, remove, relocate, reinstall, and/or demolish all electrical items shown on the drawings, or required by the specifications, to be disconnected, removed, relocated, reinstalled, and/or demolished. Subcontractor shall remove all existing electrical equipment and turn over to the Owner and/or remove from the Project Site.
33. Provide all labor and material necessary to backfill and compact any excavations that are performed by this subcontractor. Subcontractor shall uniformly smooth grade and compact, to required specifications, all areas of excavation to a smooth surface, free from irregular surface changes. Provide a smooth transition between adjacent existing grades and new grades.
34. All penetrations shall be properly sleeved and sealed in a neat workmanship type manner. Any penetrations thru fire rated ceilings, walls, etc. shall be properly fire caulked per applicable building codes.
35. Provide all equipment backer boards for mounting all equipment that is to be provided under this scope of work.
36. All under slab rough-in shall be a minimum of 4" under sub-grade.
37. Remove acoustical ceiling grid and tile that must be removed to facilitate this subcontractors work. Subcontractor is to repair/replace all grid and tile that is removed by them.
38. Subcontractor shall coordinate with all utility companies to remove/disconnect existing utilities within the demolition area.

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SUBCONTRACT AGREEMENT
SECTION 00900

39. Subcontractor shall provide and install any block-outs in the masonry construction and remove, if required, once masonry has been installed.
40. Subcontractor shall provide and install all hangers, brackets, supports, concrete housekeeping pads, anchors, wall sleeve extensions, access panels, fire wall caulking, and flashings for the electrical work.
41. Subcontractor shall saw cut and cleanly remove existing concrete slabs, asphalt paving, asphalt base, and masonry as required to install new electrical. Debris shall be removed and disposed of off-site by the Subcontractor.
42. Subcontractor shall backfill electrical trenches to specified compaction requirements. Elevation of backfill shall be +/- 1" of finished subgrade elevation.
43. Subcontractor shall provide concrete pads as required for electrical equipment.
44. Subcontractor shall furnish and install temporary power poles and services as directed by the Construction Manager's superintendent. Subcontractor shall furnish and install temporary lighting as required to meet and/or exceed general lighting illumination of building interiors to ensure a safe working environment and as required by the latest OSHA standards.
45. Subcontractor shall ensure that existing fire alarm and security system remains functional at all times. Any power, fire alarm, and/or security system disruption shall be coordinated and approved by Construction Manager and Owner.
46. Subcontractor shall connect electrical to any Owner furnished equipment and kitchen equipment shown on the project drawings and/or required by the project documents.
47. Smoke covers on smoke detectors shall remain in place until final inspection.
48. When routing new feeders and wiring thru existing building, take special care to protect existing construction.
49. Subcontractor shall furnish and install all required raceway systems, including conduit, electrical boxes, fire wall sleeves, back boxes, cable supports, and cable trays as required for the proper installation of the low voltage systems.
50. Subcontractor shall ensure that existing power system remains functional at all times. Any power system disruption shall be coordinated and approved by Construction Manager and Owner.

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SUBCONTRACT AGREEMENT
SECTION 00900

**Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc.,
Joint Venture**

Subcontract Agreement No. 2024-805-S25

Schedule B

CONTRACT DOCUMENTS

SAMPLE

Initials

SUBCONTRACT AGREEMENT
SECTION 00900

**Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc.,
Joint Venture**

Subcontract Agreement No. 2024-805-S25

Schedule C

UNIT PRICES

NOT APPLICABLE

SAMPLE

Initials

SUBCONTRACT AGREEMENT
SECTION 00900

**Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc.,
Joint Venture**

Subcontract Agreement No. 2024-805-S25

Schedule D

SPECIFIC SCHEDULE

Subsequent to the signing of this agreement, an Overall Project Schedule will be developed with the active participation of the major subcontractors. The schedule will depict the agreed upon logic of operations and approximately the time frame required for activities to be performed resulting in a project completion date as required by contract.

The resultant schedule will be incorporated into this contract by reference.

All subcontractors shall attend the bi-weekly progress meetings at the project job site. Subcontractor representative shall be familiar with the overall project and shall be familiar with the Subcontractor's scope of work and shall be able to discuss the Subcontractor's schedule, and also bind the Subcontractor to meet the dates as required by the Schedule.

Also, if Subcontractor fails to attend the regularly scheduled progress meetings, then the Subcontractor shall be responsible for paying the expenses of the Professional Scheduler, unless Subcontractor has been excused by the Construction Manager a minimum of one week before the regularly scheduled progress meeting date.

Finally, Construction Manager shall have the right to update and modify the schedule as needed to keep the project on track in order to finish the Project as required by the Contract Documents, and Subcontractor agrees to abide by the updated and /or modified schedule.

Initials

SUBCONTRACT AGREEMENT
SECTION 00900

**Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc.,
Joint Venture**

Subcontract Agreement No.: 2024-805-S25

Schedule E

INSURANCE

Prior to commencement of any of the Work, the Subcontractor shall obtain the following insurance, at its own expense, to be maintained for the entire term of the project and as noted below, whichever is later. The term Contractor and Subcontractor as used herein means and includes Contractors and Subcontractors of every tier.

1. Workers Compensation and Employers Liability Insurance for all workers employed in connection with the project as follows:

Coverage A (Workers Compensation) – Statutory
Coverage B (Employers Liability) - \$ 500,000 each accident and disease

Owners, Proprietors, Partners, Executives, Officers, and Members shall NOT be excluded form Workers Compensation Coverage.

2. Commercial General Liability Insurance with a Combined Single Limit for Bodily Injury and Property Damage in the amount of \$ 1,000,000.00 per occurrence.

Coverage Endorsements Required:
 - (a) Additional Insured Endorsement (see Paragraph 8) of Blanket Additional Insured Endorsement forms CG 2010 and CG 2037 (a copy is to be included with your certificate of insurance).
 - (b) Per Project Aggregate Limits of Liability Endorsement
 - (c) Premises – Operations Liability
 - (d) Occurrence Bodily Injury and Property Damage Liability
 - (e) Independent Contractors Liability
 - (f) Additional Insured Endorsement with completed Operations and Products Liability maintained for the statute of repose, beyond completion and acceptance of the project.
 - (g) Blanket Broad Form Contractual Liability, including the Indemnification set out in the General Conditions and all other contracts relative to the Project.
 - (h) Personal Injury Liability Insurance Hazards A, B and C with Employee Exclusion (c) deleted.
 - (i) Broad Form Property Damage Liability Insurance (including Completed Operations)
 - (j) Incidental Medical Malpractice Liability Insurance
 - (k) Blanket X, C and U Coverage, where applicable
 - (l) Host Liquor Liability Insurance

3. Comprehensive Automobile Liability Insurance covering all owned, hired or non-owned vehicle including the loading or unloading with a Combined Single Limit for Bodily Injury and Property Damage in the amount of \$ 1,000,000.00 per occurrence.

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SUBCONTRACT AGREEMENT
SECTION 00900

4. Excess (umbrella) Liability Insurance providing limits of liability of \$ 1,000,000.00 in excess of the underlying limits for Commercial General Liability, Comprehensive Automobile Liability, and Workers Compensation Coverage B – Employers Liability.
5. All such insurance shall include the interest of the entities named in paragraph 8 and their respective parent companies and/or corporations and their owner, controlled, associated, affiliated and subsidiary companies and/or corporations and the respective agents, consultants, servants and employees of each and all other interest as may be reasonably required by the Owner and Contractor as Additional Insured. The coverage afforded the Additional Insured under this policy shall be primary insurance. If the Additional Insured has other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. The amount of the company's liability under this policy shall not be reduced by the existence of such other insurance.

Certificate of Insurance, in duplicate, indicating the jobsite and evidencing all required coverage much be submitted to and approved by Construction Manager and Owner prior to the commencement of any of the Work. The certificate holders shall be as follows:

Construction Manager: Harper & Company Builders, Inc. and
Charles E. Lewis Construction Co., Inc., Joint Venture
P.O. Box 2029
Douglas, GA 31534

All policies shall expressly require a minimum of thirty (30) days written notice, by way of registered letter, to the Contractor at the address set out above, of the cancellations or material alterations of such policies, and the Certificates of Insurance shall so provide.

All certificates shall be subject to the Owner and Construction Manager's approval of adequacy of protection and the satisfactory character of the Insurer.

In the event of failure of the Subcontractor to furnish and maintain said insurance and to furnish satisfactory evidence thereof, the Owner and/or Construction Manager shall have the right (but not the obligation) to take out and maintain, without the need for notice, the same for all parties on behalf of the Subcontractor, who agrees to furnish all necessary information thereof and to pay the cost thereof to the Owner and/or Construction Manager immediately upon presentation of a bill.

6. Property Damage
- a. The Construction Manager shall purchase and maintain All Risk Builders Risk Insurance upon the entire work. The policy will cover all materials, supplies, and equipment while on or about the site or at the other locations approved by the Owner and Construction Manager prior to storage at such locations. Such insurance shall have a per occurrence deductible, which shall be the responsibility of the Subcontractor. The coverage will be on a replacement cost basis.

Temporary structures and subcontractors' tools and equipment are excluded from coverage.

Losses resulting from flood, earthquake, seepage and water below the surface of the ground are also excluded.

The Construction Manager shall have the full power to adjust and settle all losses and claims under the Builders Risk Policy.

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SUBCONTRACT AGREEMENT
SECTION 00900

- b. Subcontractor shall secure, pay for and maintain whatever fire or extended coverage or other property insurance it may deem necessary for protection against loss of owned or rented capital equipment, scaffolding, stagings, towers and forms owned or rented by them or their Subcontractors. Owner, Architect, Engineer and Construction Manager shall have no liability with respect to such equipment and tools. The requirements to secure and maintain the above insurance is solely for the benefit of the Subcontractor. Failure of the Subcontractor to secure such insurance or to maintain adequate level of coverage shall not obligate the Owner, the Architect, the Engineer, the Construction Manager or their agents and employees for any losses of owned or rented equipment. If a Subcontractor secures such insurance, the insurance policy shall include a waiver of subrogation as follows, or words to this effect:

It is agreed that in no event shall this insurance company have any right of recovery against the Owner, Architect, Engineer or Construction Manager.

7. General Terms

Any type of insurance or increase of limits of liability not described above which the Subcontractor requires for its own protection or on account of statute shall be its own responsibility and at its own expense.

The carrying of the insurance described shall in no way be interpreted as relieving the Subcontractor of any responsibility or liability under this contract.

Should the subcontractor engage a Subcontractor, the same conditions will apply under this Agreement to each Subcontractor.

The Subcontractor hereby waives all rights of subrogation against the Owner, Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, and other indemnities of the contract under all the foregoing policies of insurance.

8. Additional Insureds

Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc.
City of Douglas, Georgia

Initials

SUBCONTRACT AGREEMENT
SECTION 00900

**Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc.,
Joint Venture**

Instructions for completing your certificate of insurance (give this to your agent).

1. An ACORD Certificate of Insurance Form should be used.
2. Your name, as shown on the subcontract document, must be shown as the insured on the Certificate of Insurance.
3. All Insurance Companies listed on the Certificate must have a Best Rating of A-VII or better.
4. The General Liability Coverage must be on an Occurrence Form.
5. The Aggregate Limits of Liability for the General Liability must be a Per Project basis. (Note: This may be shown by either attaching a copy of the Specific Project Endorsement to the certificate or by attaching a copy of your Policy Declarations Page indicating the proper form number of the Per Project Aggregate Limits Endorsement together with a copy of the endorsement).
6. The Additional Insured Provision must be added to the policy by endorsement and shown on the Certificate of Insurance. (Note: This may be shown by attached a copy of the Additional Insured endorsement naming the Additional Insured as required by the Subcontract Agreement, to the certificate; or by attaching a copy of your Policy Declarations Page indicating that your policy has a Blanket Additional Endorsement and attaching a copy of the endorsement.)
7. The project must be referenced in the Description of Operations section of the Certificate.
8. Cancellation must be 30 days notice to Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc., Joint Venture, as evidenced by return receipt of registered letter. The words "will endeavor" must be deleted from the cancellation provision. Also, the words "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives" must be deleted from the Certificate.

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SUBCONTRACT AGREEMENT
SECTION 00900

**Harper & Company Builders, Inc. and Charles E. Lewis Construction Co., Inc.,
Joint Venture**

Subcontract Agreement No. 2024-805-S25

Schedule F

TEMPORARY FACILITIES

All temporary site facilities, such as storage, sheds, water, heat, light, power, toilets, hoists, elevators, scaffolding, cold weather protection, ventilating, pumps, watchman service, etc., required in performing the Work shall be furnished by Subcontractor except the following which will be furnished by Construction Manager (here insert items to be furnished by the Construction Manager):

01. Temporary electrical service adequate to operate hand tools will be provided by Construction Manager and located in a central location. This service shall include 120 volt outlet only.
02. Water necessary for construction purposes will be furnished adjacent to the building with standard hose bibs provided. Water for compaction requirements will not be provided.
03. Potable water as required for the Subcontractor's personnel will be the responsibility of the Subcontractor, including dispensers, cups, and ice.
04. Field toilets will be provided by the Construction Manager. Use of permanent building toilets or lavatories is prohibited. Employees found using building toilets or lavatories shall be removed from the Project.
05. No telephone service will be furnished. Telephones in Construction Manager's office are for exclusive use of Construction Manager. Subcontractor's use of telephones of the Owner, Architect or their field representatives is prohibited.
06. Construction Manager shall provide lighting as required by OSHA regulations in stairways, corridors, and public access areas. The Subcontractor is responsible for general task and/or spot lighting required for proper completion of the Work.
07. Temporary heat, air conditioning, fans or mechanical ventilation will not be provided. Any requirements of the Subcontractor shall be provided by the Subcontractor at Subcontractor's expense.

The temporary facilities furnished by Construction Manager shall be without charge to Subcontractor except as otherwise indicated above.

In connection with its furnishing of the temporary facilities indicated, Construction Manager shall not be liable for conditions beyond the control of Construction Manager which may interrupt, delay or otherwise interfere with the availability of such facilities to Subcontractor. Unless otherwise expressly indicated, the temporary facilities furnished by Construction Manager shall not be for the exclusive use of Subcontractor, but shall be shared by others performing work on the Project. Construction Manager therefore reserves the exclusive right to schedule the use of any facilities in accordance with its determinations as to the needs of the Project, and shall incur no liability as a result thereof.

If either party from time to time furnishes the other a crane, hoisting equipment, or other machinery or equipment, with or without an operator, for such party's exclusive use, then the using party shall at all times furnish adequate and competent supervision and direction therefore and shall be fully liable and responsible for safe and proper care, use and custody of such machinery or equipment.

Initials

SPECIAL CONDITIONS
SECTION 01020

Owner for whom the work will be accomplished is the City of Douglas, 302 S. Madison Ave., Douglas, Georgia 31533.

The Contract Time shall be commenced on the date established in a Notice to Proceed and shall continue to Date of Substantial Completion.

A Notice to Proceed shall be issued for the project. Construction operations shall not begin on site before the date established in a written Notice to Proceed from the Construction Manager.

Substantial Completion, of the project, shall be completed on or before the date established in a written Notice to Proceed from the Construction Manager.

The Contract Time for the project is 90 consecutive calendar days.

Rain Delays: The following information is the average number of calendar days per month, indicated within (), that it rains 0.10 inches or more in the location for this work: January (8), February (7), March (7), April (5), May (6), June (8), July (9), August (7), September (5), October (3), November (5), December (6). Subcontractor agrees that he anticipates adverse weather sufficient to prevent work in accordance with the schedule and the Subcontractor further agrees that unless he encounters adverse weather in excess of those days set forth herein, he shall not make, nor shall be entitled to, an extension of the Contract Time.

PRECONSTRUCTION CONFERENCE: Either before or soon after the actual award of the Subcontract Agreement (but in any event prior to the start of construction), the Subcontractor or his representative shall attend a Preconstruction Conference with representatives of the Construction Manager, Owner, and the Architect. The conference will serve to acquaint the participants with the general plan of contract administration and requirements under which the construction operation is to proceed.

The date, time, and place of the conference will be furnished to the Subcontractor by the Construction Manager.

INDEMNIFICATION: The Subcontractor shall submit a completed "INDEMNIFICATION STATEMENT" with the Subcontract Agreement in the form following this section.

VENUE AND JURISDICTION: The Subcontractor shall submit a completed "VENUE AND JURISDICTION" statement with the Subcontract Agreement in the form following this section.

ENVIRONMENTAL SAFE MATERIAL USAGE: All material used must be 100% free of asbestos (including "trace" amounts of asbestos). No lead materials shall be used in the domestic water system components, plumbing fixtures, or paint/coatings. See individual specification sections for products that require "asbestos free" and/or "lead free" certifications from the manufacturer. The Subcontractor shall certify that all building materials utilized in the construction of this facility are 100% free from asbestos and that no lead materials were utilized in the domestic water system components, plumbing fixtures, and paint/coatings. All work must be in compliance with any Federal, State and local codes, regulations and

laws.

NON-BIAS STATEMENT: The Construction Manager and the Owner supports all equal opportunity policies: Federal, State and local. The Construction Manager and the Owner will not tolerate bias related activities, e.g. racial slurs, sexual harassment, from employees and/or contractors conducting work on behalf of the Construction Manager and the Owner.

DRUG FREE/TOBACCO FREE STATEMENT: The Construction Manager and the Owner supports a drug free workplace and does not tolerate any use or possession of drugs and/or alcohol on its premises or use of such substances prior to performing any work on behalf of the Construction Manager and the Owner. Use of tobacco is prohibited in all buildings and on all premises of the Construction Manager and the Owner.

CONDUCT STATEMENT: During construction, it is likely that Subcontractor's employees will come into contact with some staff of the Construction Manager and the Owner. It is expected that those employees and the employees of any sub-subcontractor employed will conduct themselves in a gentlemanly manner with a high degree of morality and sensitivity to those around them while on the property. Gestures, sexual and/or racial remarks, cat calls, whistling or anything else of a derogatory or demeaning nature will not be tolerated.

In the event of any inappropriate behavior, any individual may be required to leave the Construction Manger's jobsite and the Owner's property and may not be allowed to return to the job site. The decision of the Construction Manager and Owner in this regard is final with no appeal on the part of the Subcontractor.

WEAPONS STATEMENT: The Construction Manager and the Owner does not tolerate any use or possession of firearms and/or other weapons on its premises. Any such use or possession of firearms and/or other weapons is prohibited in all buildings and on all premises of the Owner.

Utilities shall be paid for by the Owner. If any temporary utilities are provided during construction that are independent of the building(s) utilities, then the Subcontractor shall be responsible for these installation and service costs. The Subcontractor shall obtain and pay for separate telephone service(s).

CONSTRUCTION TESTING: It is the intent of these specifications that the Construction Manager shall pay for all testing required by the project specifications.

DRESS CODE: Subcontractors' employees shall comply with Construction Manager's dress code when on Premises, specifically; shirts, long pants, and shoes that completely cover the feet shall be worn. Shorts, tank tops, open shirts, and sandals are prohibited. Removal of shirts or other primary clothing articles is prohibited. When employees are working near machinery or heavy equipment, long hair shall be tied back and no longer than shoulder length, jewelry removed, ties and other loose materials tucked in, and similar precautions taken. They shall also comply with any other requirements of which the Construction Manager advises them.

ALTERNATES

SECTION 01030

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Subcontract Agreement, including other Division-0 and Division-1 Specification sections, apply to work of this section.

SUMMARY:

This Section includes administrative and procedural requirements governing Alternates.

DEFINITIONS:

Definition: An alternate is an amount proposed by bidders and stated on the Proposal Form for certain work defined on the Proposal Form that may be added or deleted to the Base Proposal amount if the Construction Manager and/or Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

The cost for each alternate is the full addition and/or deduction to the Contract Sum to incorporate the Alternate into the Work. No other adjustments are made to the Contract Sum.

PROCEDURES:

Coordination: Modify or adjust affected adjacent Work as necessary to completely and fully integrate that Work into the Project.

Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.

Notification: Immediately following the award of the Subcontract Agreement, notify each party involved, in writing, of the status of each alternate. Indicate whether alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates, if applicable.

Execute accepted alternates under the same conditions as other Work of this Subcontract Agreement.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

DEFINITIONS AND STANDARDS

SECTION 01090

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Subcontract Agreement, including other Division-0 and Division-1 Specification sections, apply to work of this section.

DESCRIPTION OF REQUIREMENTS:

General: This section specifies procedural and administrative requirements for compliance with governing regulations and codes and standards imposed upon the Work. These requirements include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with regulations, codes and standards.

The term "Regulations" is defined to include laws, statutes, ordinances and lawful orders issued by governing authorities, as well as those rules, conventions and agreements within the construction industry which effectively control the performance of the Work regardless of whether they are lawfully imposed by governing authority or not.

DEFINITIONS:

General Explanation: Certain terms used in contract documents are defined in this article. Definitions and explanations contained in this section are not necessarily complete, but are general for the Work to the extent that they are not stated more explicitly in another element of the contract documents.

Additional Definitions are also included within various Technical Sections.

General Requirements: Provisions and requirements of other Division 0 and Division 1 sections apply to the entire work of the Contract and, where so indicated, to other elements which are included in the project.

Indicated: The term "indicated" is a cross-reference to graphic representations, notes or schedules on the drawings, to other paragraphs or schedules in the specifications, and to similar means of recording requirements in contract documents. Where terms such as "shown", "noted", "scheduled", and "specified" are used in lieu of "indicated", it is for the purpose of helping the reader locate the cross-reference, and no limitation of location is intended except as specifically noted.

Directed, Requested, etc.: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", "accepted", and "permitted" mean "directed by the Construction Manager/Architect/Engineer", "requested by the Construction Manager/Architect/Engineer", and similar phrases. However, no such implied meaning will be interpreted to extend the Construction Manager's/Architect's/Engineer's responsibility into the Subcontractor's area of construction supervision.

DEFINITIONS AND STANDARDS

SECTION 01090

Not in Contract: Items marked "NIC" will be under separate contract and are not included in Subcontract Agreement. They are shown to clarify connections, adjacent work, and function of areas.

Approve: Where used in conjunction with the Construction Manager's/Architect's/Engineer's response to submittals, requests, applications, inquiries, reports and claims by the Subcontractor, the term "approved" will be held to limitations of the Construction Manager's/Architect's/Engineer's responsibilities and duties as specified in Subcontract Agreement. In no case will the Construction Manager's/Architect's/Engineer's approval be interpreted as a release of the Subcontractor from responsibilities to fulfill requirements of contract documents or acceptance of the Work, unless otherwise provided by requirements of the contract documents.

Project Site: The term "project site" means the space available to the Subcontractor for performance of the Work, either exclusively or in conjunction with others performing other construction as part of the project. The extent of the project site is shown on the drawings, and may or may not be identical with the description of the land upon which the project is to be built.

Furnish: The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations."

Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations."

Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."

Installer: The "installer" is "the entity" (person or firm) engaged by the Subcontractor, or its sub-subcontractor for performance of a particular element of construction at the project site, including installation, erection, application and similar required operations. It is a requirement that installers are experienced in the operations they are engaged to perform.

Testing Laboratories: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests of the Work, either at the project site or elsewhere, and to report, and interpret results of those inspections or tests.

ADA: Americans with Disabilities Act

H.C.: Handicapped accessible.

ACBM: Asbestos-containing building material.

Ex. or Exist: Existing.

DEFINITIONS AND STANDARDS

SECTION 01090

DRAWING SYMBOLS:

General: Except as otherwise indicated, graphic symbols used on the drawings are those symbols recognized in the construction industry for purposes indicated.

Mechanical/Electrical Drawings: Graphic symbols used on mechanical and electrical drawings are generally aligned with symbols recommended by ASHRAE. Where appropriate, these symbols are supplemented by more specific symbols as recommended by other technical associations including ASME, ASPE, IEEE and similar organizations. Refer instances of uncertainty to the Construction Manager for clarification before proceeding.

INDUSTRY STANDARDS:

Applicability of Standards: Except where more explicit or stringent requirements are written into the contract documents, applicable construction industry standards have the same force and effect as if bound into or copied directly into the contract documents. Such industry standards are made a part of the contract documents by reference. Individual specification sections indicate which codes and standards the Subcontractor must keep available at the project site for reference.

Referenced standards (standards referenced directly in the contract documents) take precedence over standards that are not referenced but generally recognized in the industry for applicability to the Work.

Unreferenced Standards: Except as otherwise limited by the contract documents, standards not referenced but recognized in the construction industry as having direct applicability will be enforced for performance of the Work. The decision as to whether an industry code or standard is applicable, or as to which of several standards are applicable, is the sole responsibility of the Construction Manager.

Publication Dates: Except as otherwise indicated, where compliance with an industry standard is required, comply with standard in effect as of date of contract documents.

Updated Standards: At the request of the Construction Manager, submit a change order proposal where an applicable industry code or standard has been revised and reissued after the date of the contract documents and before the performance of the Work affected. The Construction Manager will decide whether to issue a change order to proceed with the updated standard.

Conflicting Requirements: Where compliance with two or more standards is specified, and where these standards establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced, unless the contract documents specifically indicate otherwise. Refer requirements that are different, but apparently equal, and uncertainties as to which quality level is more stringent to the Construction Manager for a decision before proceeding.

DEFINITIONS AND STANDARDS

SECTION 01090

Minimum Quantities or Quality Levels: In every instance the quantity or quality level shown or specified is intended to be the minimum to be provided or performed. Unless otherwise indicated, the actual work may either comply exactly, within specified tolerances, with the minimum quantity or quality specified, or may exceed that minimum within reasonable limits. In complying with these requirements, the indicated numeric values are minimum or maximum values, as noted, or as appropriate for the context of the requirements. Refer instances of uncertainty to the Construction Manager for decision before proceeding.

Copies of Standards: The contract documents require that each entity performing work be experienced in that part of the work being performed. Each entity is also required to be familiar with industry standards applicable to that part of the work. Copies of applicable standards are not bound with the contract documents.

Where copies of standards are needed for proper performance of the work, the Subcontractor is required to obtain such copies directly from the publication source.

Although copies of standards needed for enforcement of requirements may be required submittals, the Construction Manager reserves the right to require the Subcontractor to submit additional copies as necessary for enforcement of requirements.

Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where acronyms or abbreviations are used in the specifications or other contract documents they are defined to mean the recognized name of the trade association, standards generating organization, governing authority 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.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SUBCONTRACT MODIFICATION PROCEDURES

SECTION 01250

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Subcontract Agreement, including other Division-0 and Division-1 Specification sections, apply to work of this section.

MINOR CHANGES IN THE WORK

Construction Manager will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, in writing and typically on Field Reports to the Subcontractor.

PROPOSAL REQUESTS

Request for Information (RFI): Subcontractor shall use the RFI form attached following this Section to request information from the Construction Manager regarding the Contract Documents. Contractor may use similar formats that contain the information indicated on the attached form.

Changes in the Work that may require adjustment to the Contract Sum and/or the Contract Time shall be summarized on the attached Change Order Proposal Request form and shall be submitted to the Construction Manager for review. Contractor may use similar formats that contain the information indicated on the attached form.

Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. Furnish necessary data to substantiate quantities.

Indicate applicable taxes, delivery charges, overhead and profit..

CHANGE ORDER PROCEDURES

On Construction Manager's approval of a Change Order Proposal Request, Construction Manager will issue a Change Order for signatures of Construction Manager and Subcontractor.

When a Change Order includes an adjustment in the Contract Time, submit an updated Subcontractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

SUBCONTRACT MODIFICATION PROCEDURES

SECTION 01250

CONSTRUCTION CHANGE DIRECTIVE: See Subcontract Agreement where applicable.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

CHANGE ORDER PROPOSAL REQUEST

PROJECT NAME: _____ CO PROPOSAL # _____

SUBCONTRACTOR: _____

PROPOSAL DATE: _____

NARRATIVE: _____

CONTRACT TIME: No Change
 Extended _____ Calendar Days

DETAILED - COST BREAKDOWN							
Item	Quantity	Units	Labor Unit Cost	Labor Cost	Material Unit Cost	Material Cost	Total

Subcontractor

Signature

SUBMITTALS

SECTION 01300

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Subcontract Agreement, including other Division-0 and Division-1 Specification sections, apply to work of this section.

SUMMARY:

This section specifies administrative and procedural requirements for submittals required for performance of the work, including:

- Subcontractor's construction schedule.
- Submittal schedule.
- Daily construction reports.
- Shop drawings.
- Product data.
- Samples.

Administrative Submittals: Refer to other Division-1 sections and other Contract Documents for requirements for administrative submittals.

SUBMITTAL PROCEDURES:

Coordination: Subcontractor shall immediately prepare or obtain and promptly submit to Construction Manager, within fifteen (15) days of receipt of Subcontract Agreement, shop and erection drawings, samples, product data, catalog cuts, laboratory and inspection and engineering calculations, all as may be required by the Contract Documents or as may be appropriate to describe the details of the Work.

The Architect and Construction Manager reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.

Allow two weeks for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Construction Manager will promptly advise the Contractor when a submittal being processed must be delayed for coordination.

If an intermediate submittal is necessary, process the same as the initial submittal. Allow two weeks for reprocessing each submittal.

SUBMITTALS

SECTION 01300

No extension of Contract Time will be authorized because of failure to transmit submittals to the Construction Manager sufficiently in advance of the work to permit processing.

Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

Provide a space approximately 3" x 5" on the label or beside the title block on shop drawings to record the Subcontractor's review and approval markings and the action taken.

Include the following information on the label for processing and recording action taken.

- Project name.
- Date.
- Name and address of Architect.
- Name and address of Construction Manager.
- Name and address of Subcontractor.
- Name and address of supplier.
- Name of manufacturer.
- Number and title of appropriate specification section.
- Drawing number and detail references, as appropriate.

Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Subcontractor to Construction Manager using a transmittal form. Submittals received from sources other than the Subcontractor will be returned without action.

On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Subcontractor's certification that information complies with Contract Document requirements.

SUBCONTRACTOR'S CONSTRUCTION SCHEDULE:

Bar Chart Schedule: Prepare a fully developed, horizontal bar chart type Subcontractor's construction schedule. Submit no later than 5 days after Subcontractor is notified that he/she will be awarded the Contract.

Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the work as indicated in the "Schedule of Values".

Prepare the schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.

Secure time commitments for performing critical elements of the work from parties involved.

SUBMITTALS

SECTION 01300

Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the work.

Coordinate the Subcontractor's construction schedule with the schedule of values, list of sub-subcontractors, submittal schedule, progress reports, payment requests and other schedules.

Indicate completion in advance of the date established for Substantial Completion. Indicate Substantial Completion on the schedule to allow time for the Construction Manager's procedures necessary for certification of Substantial Completion.

Cost Correlation: At the head of the schedule, provide a two item cost correlation line, indicating "precalculated" and "actual" costs. On the line show dollar-volume of work performed as of the dates used for preparation of payment requests.

Distribution: Following response to the initial submittal, print and distribute copies to the sub-subcontractors, and other parties required to comply with scheduled dates.

When revisions are made, distribute to the same parties. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.

Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

SHOP DRAWINGS:

Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of shop drawings. Standard information prepared without specific reference to the project is not considered shop drawings.

Shop drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:

- Dimensions.
- Identification of products and materials included.
- Compliance with specified standards.
- Notation of coordination requirements.
- Notation of dimensions established by field measurement.

Sheet Size: Except for templates, patterns and similar full-size drawings, submit shop drawings on sheets at least 8-1/2" x 11" but no larger than 36" x 48".

Shop Drawing Submittal: Submit 2 blue- or black-line prints to be retained by the Architect, plus one set for shop drawings related to mechanical, electrical, civil, structural, or landscaping sections,

SUBMITTALS

SECTION 01300

plus 2 additional prints where required for maintenance and operating manuals, plus 4 additional prints for the Construction Manager's use.

Do not use shop drawings without an appropriate final stamp indicating action taken in connection with construction.

PRODUCT DATA:

Collect product data into a single submittal for each element of construction or system. Product data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where product data must be specially prepared because standard printed data is not suitable for use, submit as "shop drawings".

Mark each copy to show applicable choices and options. Where printed product data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:

- Manufacturer's printed recommendations.
- Compliance with recognized trade association standards.
- Compliance with recognized testing agency standards.
- Application of testing agency labels and seals.
- Notation of dimensions verified by field measurement.
- Notation of coordination requirements.

Do not submit product data until compliance with requirements of the Contract Documents has been confirmed.

Submittals: Submit 4 copies of each required submittal to be retained by the Construction Manager plus one for submittals related to mechanical, electrical, civil, structural or landscaping sections plus 2 copies where required for maintenance and operating manuals plus the number required for the Subcontractor's use.

Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

Distribution: Furnish copies of final submittal to installers, sub-subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities.

Do not proceed with installation until an applicable copy of product data applicable is in the installer's possession.

Do not permit use of unmarked copies of product data in connection with construction.

SAMPLES:

Submit full-size, fully fabricated samples cured and finished as specified and physically identical

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with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.

Mount, display, or package samples in the manner specified to facilitate review of qualities indicated. Prepare samples to match the Architect's sample. Include the following:

Generic description of the sample.

Sample source.

Product name or name of manufacturer.

Compliance with recognized standards.

Submit samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.

Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than 3) that show approximate limits of the variations.

Refer to other specification sections for requirements for samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.

Preliminary Submittals: Where samples are for selection of color, pattern, texture or similar characteristics from a range of standard choices, submit a full set of choices for the material or product.

Preliminary submittals will be reviewed and returned with the Construction Manager's and Architect's mark indicating selection and other action.

Submittals: Submit 6 sets.

Field samples specified in individual sections are special types of samples. Field samples are full-size examples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the work will be judged.

Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

CONSTRUCTION MANAGER'S ACTION:

Except for submittals for record, information or similar purposes, where action and return is required or requested, the Construction Manager and Architect will review each submittal, mark to indicate action taken, and return promptly.

Compliance with specified characteristics is the Subcontractor's responsibility.

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Action Stamp: The Construction Manager and Architect will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked to indicate the action taken.

Do not permit submittals marked “Rejected”, “Revise and Resubmit” or similar responses to be used at the project site, or elsewhere where work is in progress.

PART 2 - PRODUCTS (Not applicable.)

PART 3 - EXECUTION (Not applicable.)

END OF SECTION

PRODUCTS AND SUBSTITUTIONS

SECTION 01631

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Subcontract Agreement, including other Division-0 and Division-1 Specification sections, apply to work of this section.

DESCRIPTION OF REQUIREMENTS:

PRIOR APPROVAL PROCEDURE:

Substitutions: The Subcontractor's requests for changes in the products, materials, equipment and methods of construction required by the contract documents are considered requests for "substitutions", and are subject to the requirements specified herein.

When reference is made in the contract documents to trade names, brand names, or to the names of manufacturers, such references are made solely to indicate that products of that description may be furnished and are not intended to restrict competitive bidding.

If it is desired to use products of trade or brand names or of manufacturers' names which are different from those mentioned in the contract documents, application for the approval of the use of such products must reach the hands of the Construction Manager at least seven days prior to the date set for the opening of proposals.

The latter provision is a restriction which applies only to the party making a submittal. Therefore, the aforesaid restriction does not inhibit the Construction Manager and Architect from adding trade names, brand names or names of manufacturers by addendum.

The burden of proving acceptability of a proposed product for use in place of a product or products designated by trade name or names, brand name or names, or by the name or names of manufacturers in the contract documents rests on the party submitting the request for approval. The written application for approval of a proposed product must be accompanied by technical data which the party requesting approval desires to submit in support of his application.

The Construction Manager and Architect will give consideration to reports from reputable independent testing laboratories verified experience records showing the reputation of the proposed product with previous users, evidence of reputation of the manufacturer for prompt delivery, evidence of reputation of the manufacturer for efficiency in servicing its products, or any other written information that is helpful in the circumstances.

PRODUCTS AND SUBSTITUTIONS

SECTION 01631

The application to the Construction Manager / Architect for approval of a proposed product must be accompanied by a schedule setting forth in which respects the materials or equipment submitted for consideration differ from the materials or equipment designated in the contract documents.

The degree of proof required for approval of a proposed product as acceptable for use in place of a named product or named products is that amount of proof necessary to convince a reasonable person beyond all doubt.

To be approved, a proposed product must also meet or exceed all express requirements of the contract documents.

If the submittal is approved by the Construction Manager / Architect, an addendum will be issued to all prospective bidders. Issuance of an addendum is a representation to all bidders that the Construction Manager / Architect in the exercise of his professional discretion established that the product submitted for approval is acceptable and meets or exceeds all express requirements.

In the event a submittal shall have been rejected by the Construction Manager / Architect and there shall have been a request for a conference as provided in this article pursuant to which conference the said submittal shall have been found to comply with the requirements of this article, a separate addendum covering the said submittal will be issued prior to the opening of bids.

In order for the Construction Manager / Architect to prepare an addendum intelligently, an application for approval of a product must be accompanied by a copy of the published recommendations of the manufacturer for the installation of the product together with a complete schedule of changes in the drawings and specifications, if any, which must be made in other work in order to permit the use and installation of the proposed product in accordance with the recommendations of the manufacturer of the product.

Unless requests for approvals of other products have been received and approvals have been published by addendum in accordance with the above procedure, the successful proposer may furnish no products of any trade names, brand names, or manufacturers' names except those designated in the contract documents.

END OF SECTION

PROJECT CLOSEOUT

SECTION 01700

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Subcontract Agreement, including other Division-0 and Division-1 Specification sections, apply to work of this section.

DESCRIPTION OF REQUIREMENTS:

Definitions: Project closeout is the term used to describe certain collective project requirements, indicating completion of the work that are to be fulfilled near the end of the Contract time in preparation for final acceptance and occupancy of the work by the Construction Manager and Owner, as well as final payment to the Subcontractor and the normal termination of the Subcontract Agreement.

Specific requirements for individual units of work are included in the appropriate project specification sections.

Time of closeout is directly related to "Substantial Completion"; therefore, the time of closeout may be either a single time period for the entire work or a series of time periods for individual elements of the work (phases) that have been certified as substantially complete at different dates. This time variation, if any, shall be applicable to the other provisions of this section.

PREREQUISITES TO SUBSTANTIAL COMPLETION:

General: Subcontractor shall complete all work covered in the Contract Documents before requesting the Construction Manager's/Architect's inspection for certification of Substantial Completion, either for the entire work or for portions of the work. List known exceptions in the request.

In the progress payment following the date Substantial Completion is claimed, show either 100% completion for the portion of the work claimed as "substantially complete", or list incomplete items, the value of incomplete work, and reasons for the work being incomplete.

Include supporting documentation for completion as indicated in these contract documents.

Submit a statement showing an accounting of changes to the Contract Sum.

Advise Construction Manager of pending insurance changeover requirements.

Submit specific warranties, workmanship/maintenance bonds, maintenance agreements, final certifications and similar documents, and test and balance reports.

Deliver extra stock of material and similar physical items to the Owner.

PROJECT CLOSEOUT

SECTION 01700

Obtain and submit releases enabling the Owner's full, unrestricted use of the work and access to services and utilities. Where required, include occupancy permits, operating certificates, and similar releases.

Complete start-up testing of systems, and instruction of the Owner's operating and maintenance personnel. Discontinue or change over and remove temporary facilities and services from the project site, along with construction tools and facilities, mock-ups, and similar elements.

Complete final cleaning up requirements, including touch-up painting of marred surfaces.

Touch-up and otherwise repair and restore marred exposed finishes.

PREREQUISITES TO FINAL ACCEPTANCE:

General: Complete the following before requesting the Construction Manager's/Architect's final inspection for recommendation of final acceptance and final payment as required by the Contract Documents. List known exceptions, if any, in the request.

Submit the final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.

Submit a certified copy of the Construction Manager's/Architect's final punch-list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance.

Submit final meter readings for utilities, a measured record of stored fuel, and similar data either as of the date of Substantial Completion, or else when the Owner took possession of and responsibility for corresponding elements of the work.

Make the final change-over of locks and transmit the keys to the Owner. Advise the Owner's personnel of the changeover in security provisions.

Submit evidence of final, continuing insurance coverage complying with insurance requirements.

The following forms shall be supplied to the Construction Manager. Subcontractor shall submit 4 originals of each with original signatures.

- 1) Subcontractor's Affidavit of Payment of Debts and Claims
- 2) Subcontractor's Statutory Affidavit
- 3) Subcontractor's Affidavit of Release of Liens
- 4) Consent of Surety Company to Final Payment

Reinspection Procedure: The Construction Manager / Architect will reinspect the work upon receipt of the Subcontractor's notice that the work, including punch-list items resulting from

PROJECT CLOSEOUT

SECTION 01700

earlier inspection, has been completed, except for these items whose completion has been delayed because of circumstances that are acceptable to the Construction Manager/Architect.

Upon completion of reinspection, the Construction Manager/Architect will either recommend final acceptance to the Owner, or will advise the Subcontractor of work that is incomplete or of obligations that have not been fulfilled, but are required for final acceptance.

If necessary, the reinspection procedure will be repeated.

RECORD DOCUMENT AND AS-BUILT DRAWINGS' SUBMITTALS:

General: Specific requirements for record documents are indicated in the individual sections of these specifications. General submittal requirements are indicated in the various "submittals" sections.

Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Construction Manager's and Architect's reference during normal working hours.

Record Drawings: Maintain the furnished record set of black line white-prints of contract drawings and shop drawings in a clean, undamaged condition. Mark-up the set of record documents to show the actual installation where the installed work varies substantially from the work as originally shown. Mark whichever drawing is most capable of showing the actual "field" condition fully and accurately; however, where shop drawings are used for mark-up, record a cross-reference at the corresponding location on the working drawings. Give particular attention to concealed work that would be difficult to measure and record at a later date.

Mark record sets with red erasable pencil and, where feasible, use other colors to distinguish between variations in separate categories of work.

Mark-up new information which is known to be important to the Owner, but for some reason was not shown on either contract drawings or shop drawings.

Note related change order numbers where applicable.

Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.

Maintenance Manuals: Organize operating and maintenance data into at least three (3) suitable sets of manageable size. Bind data into individual binders, properly identified and indexed. Bind each set of data in a heavy-duty 2-inch, 3-ring vinyl-covered binder, with pocket folders for folded sheet information. Mark the appropriate identification on both front and spine of each binder.

PROJECT CLOSEOUT

SECTION 01700

Include the following types of information in operation and maintenance manuals.

- Emergency instructions.
- Spare parts listing.
- Copies of warranties.
- Wiring diagrams.
- Recommended "turn-around" cycles.
- Inspection procedures.
- Shop drawings and product data.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

CLOSEOUT PROCEDURES:

General Operating and Maintenance Instructions: Arrange for each installer of operating equipment and other work that requires regular or continuing maintenance, to meet at the site with the Owner's personnel to provide necessary basic instruction in the proper operation and maintenance of the entire work. Where installers are not experienced in the required procedures, include instruction by the manufacturer's representatives.

As part of this instruction, provide a detailed review of the following items:

- Maintenance manuals.
- Record documents.
- Spare parts and materials.
- Identification systems.
- Control sequences.
- Hazards.
- Cleaning.
- 2 Warranties, bonds, maintenance agreements and similar continuing commitments.

As part of this instruction for operating equipment, demonstrate the following procedures:

- Start-up.
- Shut-down.
- Emergency operations.
- Noise and vibration adjustments.
- Safety procedures.
- Economy and efficiency adjustments.
- Effective energy utilization.

PROJECT CLOSEOUT

SECTION 01700

FINAL CLEANING:

General: Special cleaning requirements for specific units of work are included in the appropriate sections of Divisions 2 through 16. General cleaning during the regular progress of the work is required by the Contract Documents.

Cleaning: Provide final cleaning of the work at the time indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of work to the condition expected from a normal, commercial building cleaning and maintenance program. Comply with the manufacturer's instructions for operations.

Complete the following cleaning operations before requesting the Construction Manager's/ Architect's inspection for final acceptance or certification of substantial completion.

Remove labels which are not required as permanent labels.

Clean transparent materials, including mirrors and glass in doors and windows, to a polished condition. Remove putty and other substances which are noticeable as vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.

Clean exposed exterior and interior hard-surfaced finishes to a condition free of dust, stains, films and similar noticeable distracting substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.

Wipe surfaces of mechanical and electrical equipment clean. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

Clean the project site, including landscape development areas, of rubbish, litter and other foreign substances. Sweep paved areas to a broom clean condition; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.

Removal of Protection: Except as otherwise indicated or requested by the Construction Manager/ Architect, remove temporary protection devices and facilities which were installed during the course of the work to protect previously completed work during the remainder of the construction period.

Compliance: Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at the site. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile or other harmful or dangerous materials into drainage system. Remove waste materials from the site and dispose of in a lawful manner.

Where extra materials of value remaining after completion of associated work have become the Owner's property, dispose of these materials to the Owner's best advantage as directed.

END OF SECTION

SECTION 07411 - METAL ROOF PANELS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Exposed fastener metal roof panels, with related metal trim and accessories.

1.2 RELATED REQUIREMENTS

- A. Division 07 Section "Sheet Metal Flashing and Trim" for formed sheet metal copings, flashings, reglets, and roof drainage items in addition to items specified in this Section.
- B. Division 07 Section "[Joint Sealants](#)" for field-applied [Joint Sealants](#).

1.3 REFERENCES

- A. American Architectural Manufacturer's Association (AAMA): www.aamanet.org:
 - 1. AAMA 621 - Voluntary Specifications for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) & Zinc-Aluminum Coated Steel Substrates.
 - 2. AAMA 809.2 - Voluntary Specification Non-Drying Sealants.
- B. American Society of Civil Engineers (ASCE): www.asce.org/codes-standards:
 - 1. ASCE 7 - Minimum Design Loads for Buildings and Other Structures.
- C. ASTM International (ASTM): www.astm.org:
 - 1. ASTM A 653 - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - 2. ASTM A 755 - Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
 - 3. ASTM A 792/A 792M - Standard Specification for Steel Sheet, 55 % Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
 - 4. ASTM C 645 - Specification for Nonstructural Steel Framing Members.
 - 5. ASTM C 754 - Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.
 - 6. ASTM C 920 - Specification for Elastomeric [Joint Sealants](#).
 - 7. ASTM D 1003 - Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics.
 - 8. ASTM D 2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
 - 9. ASTM D 4214 - Test Methods for Evaluating Degree of Chalking of Exterior Paint Films.
 - 10. ASTM E 1646 - Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference.
 - 11. ASTM E 1680 - Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems.
 - 12. ASTM E 1980 - Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.
 - 13. ANSI/FM 4471 - Approval Standard for Class 1 Panel Roofs.

- D. International Accreditation Service (IAS):
 - 1. IAS AC 472 - Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems, Part B.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Prior to erection of framing, conduct preinstallation meeting at site attended by Owner, Architect, manufacturer's technical representative, inspection agency and related trade contractors.
 - 1. Coordinate building framing in relation to metal panel system.
 - 2. Coordinate openings and penetrations of metal panel system.
 - 3. Coordinate work of Division 07 Sections "Roof Specialties" and "Roof Accessories" and openings and penetrations and manufacturer's accessories with installation of metal panels.

1.5 QUALITY ASSURANCE

- A. Manufacturer/Source: Provide metal roof panel assembly and accessories from a single manufacturer providing fixed-base roll forming, and accredited under IAS AC 472 Part B.
- B. Manufacturer Qualifications: Approved manufacturer listed in this Section with minimum five years experience in manufacture of similar products in successful use in similar applications.
 - 1. Approval of Comparable Products: Submit the following in accordance with project substitution requirements, within time allowed for substitution review:
 - a. Product data, including certified independent test data indicating compliance with requirements.
 - b. Samples of each component.
 - c. Sample submittal from similar project.
 - d. Project references: Minimum of five installations not less than five years old, with Owner and Architect contact information.
 - e. Sample warranty.
 - f. IAS AC 472 certificate.
 - 2. Substitutions following award of contract are not allowed except as stipulated in Division 01 General Requirements.
 - 3. Approved manufacturers must meet separate requirements of Submittals Article.
- C. Installer Qualifications: Experienced Installer with minimum of five years experience with successfully completed projects of a similar nature and scope.
 - 1. Installer's Field Supervisor: Experienced mechanic, able to communicate with Owner, Architect, and installers, supervising work on site whenever work is underway.

1.6 ACTION SUBMITTALS

- A. Product Data: Manufacturer's data sheets for specified products.
- B. Shop Drawings: Show layouts of metal panels. Include details of each condition of installation, panel profiles, and attachment to building. Provide details at a minimum scale 1-1/2-inch per foot of edge conditions, joints, fastener and sealant placement, flashings, openings,

penetrations, roof accessories, lightning arresting equipment, and special details. Make distinctions between factory and field assembled work.

1. Indicate points of supporting structure that must coordinate with metal panel system installation.
2. Include data indicating compliance with performance requirements.
3. Include structural data indicating compliance with requirements of authorities having jurisdiction.

C. Samples for Initial Selection: For each exposed product specified including sealants. Provide representative color charts of manufacturer's full range of colors.

D. Samples for Verification: Provide 12-inch- (305 mm-) long section of each metal panel profile. Provide color chip verifying color selection.

1.7 INFORMATIONAL SUBMITTALS

A. Product Test Reports: Indicating compliance of products with requirements, witnessed by a professional engineer.

B. Qualification Information: For Installer firm and Installer's field supervisor.

C. IAS Accreditation Certificate: Indicating that manufacturer is accredited under provisions of IAS AC 472.

D. Manufacturer's Warranty: Sample copy of manufacturer's standard warranty.

1.8 CLOSEOUT SUBMITTALS

A. Maintenance data.

B. Manufacturer's Warranty: Executed copy of manufacturer's standard warranty.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Protect products of metal panel system during shipping, handling, and storage to prevent staining, denting, deterioration of components or other damage. Protect panels and trim bundles during shipping.

1. Deliver, unload, store, and erect metal panel system and accessory items without misshaping panels or exposing panels to surface damage from weather or construction operations.

2. Store in accordance with Manufacturer's written instructions. Provide wood collars for stacking and handling in the field.

1.10 COORDINATION

A. Coordinate sizes, profiles, and locations of roof curbs and other roof-mounted equipment and roof penetrations, based upon sizes of actual selected equipment.

1.11 WARRANTY

A. Special Manufacturer's Warranty: On manufacturer's standard form, in which manufacturer agrees to repair or replace metal panel assemblies that fail within one year from date of Substantial Completion.

- B. Special Panel Finish Warranty: On Manufacturer's standard form, in which Manufacturer agrees to repair or replace metal panels that evidence deterioration of factory-applied finish within [10] years from date of Substantial Completion, including:
1. **Fluoropolymer Two-Coat System:**
 - a. Color fading in excess of [10] Hunter units per ASTM D 2244.
 - b. Chalking in excess of No. [8] rating per ASTM D 4214.
 - c. Failure of adhesion, peeling, checking, or cracking.
 2. **Modified Silicone-Polyester Two-Coat System:**
 - a. Color fading in excess of [10] Hunter units per ASTM D 2244, for non-vertical applications.
 - b. Chalking in excess of No. [6] rating per ASTM D 4214, for non-vertical applications.
 - c. Failure of adhesion, peeling, checking, or cracking.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Basis of Design Manufacturer: **MBCI Metal Roof and Wall Systems, Division of NCI Group, Inc.**; Houston TX. Tel: (877)713-6224; Email: info@mbc.com; Web: www.mbc.com.
1. Provide basis of design product[, or comparable product approved by Architect prior to bid].

2.2 PERFORMANCE REQUIREMENTS

- A. General: Provide metal roof panel system meeting performance requirements as determined by application of specified tests by a qualified testing facility on manufacturer's standard assemblies.
- B. Thermal Movements: Allow for thermal movements from variations in both ambient and internal temperatures. Accommodate movement of support structure caused by thermal expansion and contraction. Allow for deflection and design for thermal stresses caused by temperature differences from one side of the panel to the other.
- C. Provide metal panel assemblies capable of withstanding the effects of indicated loads and stresses within limits and under conditions indicated:
1. Wind Loads: Determine loads based on uniform pressure, importance factor, exposure category, and basic wind speed indicated on drawings.
 2. Snow Loads: [___ lbf/sq. ft. (___ Pa)] [As indicated].
 3. Deflection Limits: Withstand inward and outward wind-load design pressures in accordance with applicable building code with maximum deflection of [1/120] [1/180] [1/240] of the span with no evidence of failure.
 4. Seismic Performance: Comply with ASCE 7, Section 9, "Earthquake Loads."
- D. **Wind Uplift Resistance:** Comply with UL 580 for wind-uplift class [UL-60] [UL-90].
- E. **FM Approvals Listing:** Comply with FM Approvals 4471 as part of a panel roofing system, and that are listed in FM Approvals' "RoofNav" for Class 1 construction. Identify materials with FM Approvals markings.

1. Fire/Windstorm Classification: [Class 1A-60] [Class 1A-90] [Class 1A-165].
2. Hail Resistance Rating: 1-SH.

2.3 METAL PANEL MATERIALS

- A. **Aluminum-Zinc Alloy-Coated Steel Sheet:** ASTM A 792/A 792M, structural quality, **Grade 50, Coating Class AZ50 (Grade 340, Coating Class AZM150)**, prepainted by the coil-coating process per ASTM A 755/A 755M.

2.4 METAL ROOF PANELS

- A. **Large Tapered-Rib-Profile, Exposed Fastener Metal Roof Panels:** Structural metal roof panel consisting of formed metal sheet with trapezoidal major ribs with intermediate stiffening ribs symmetrically placed between major ribs, installed by lapping edges of adjacent panels.

1. Basis of Design: **MBCI, PBR Panel**, www.mbc.com/pbr.html.
2. Coverage Width: **36 inches (914 mm)**.
3. Major Rib Spacing: **12 inches (305 mm)** on center.
4. Rib Height: **1-1/4 inch (31.8 mm)**.
5. Nominal Coated Thickness: **[0.022 inch/26 gage (0.56 mm)]**
6. Panel Surface: [Smooth]
7. Exterior Finish: [Unpainted exposed Galvalume Plus coating].
8. Color: [As indicated]
9. Color: [As indicated] [As selected by Architect from manufacturer's standard colors] [Match Architect's custom color].

2.5 METAL ROOF PANEL ACCESSORIES

- A. General: Provide complete metal roof panel assembly incorporating ridge, eave, rake, valley, and parapet trims, copings, fascias, gutters and downspouts, and miscellaneous flashings, in [manufacturer's standard profiles] [profiles as indicated]. Provide required fasteners, closure strips, support plates, and sealants as indicated in manufacturer's written instructions.
- B. Flashing and Trim: Match material, thickness, and finish of metal panel face sheet.
- C. Panel Fasteners: Self-tapping screws and other acceptable fasteners recommended by roof panel manufacturer.
1. Exposed Fasteners: Long life fasteners with EPDM or neoprene gaskets, with heads matching color of metal panels by means of factory-applied coating.
- D. Joint Sealers: Manufacturer's standard or recommended liquid and preformed sealers and tapes, and as follows:
1. Tape Sealers: Manufacturer's standard non-curing butyl tape, AAMA 809.2.
 2. Concealed **Joint Sealants**: Non-curing butyl, AAMA 809.2.
 3. Exposed **Joint Sealants**: Urethane, single component, ASTM C 920.
- E. **Steel Sheet Miscellaneous Framing Components:** ASTM C 645, with ASTM A 653/A 653M, **G60 (Z180)** hot-dip galvanized zinc coating.

2.6 FABRICATION

- A. General: Provide factory fabricated and finished metal panels and accessories meeting performance requirements, indicated profiles, and structural requirements.

- B. Panel Lengths: Form panels in continuous lengths for full length of detailed runs, except where otherwise indicated on approved shop drawings.
- C. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's written instructions, approved shop drawings, and project drawings. Form from materials matching metal panel substrate and finish.

2.7 FINISHES

- A. Finishes, General: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
- B. Interior Finish: 0.5 mil total dry film thickness consisting of primer coat and wash coat of manufacturer's standard light-colored acrylic or polyester backer finish.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine metal panel system substrate and supports with Installer present. Inspect for erection tolerances and other conditions that would adversely affect installation of metal panel installation.
 - 1. Inspect metal panel support substrate to determine if support components are installed as indicated on approved shop drawings. Confirm presence of acceptable supports at recommended spacing to match installation requirements of metal panels.
 - 2. Panel Support Tolerances: Confirm that panel supports are within tolerances acceptable to metal panel system manufacturer but not greater than the following:
 - a. **3/8 inch (9 mm)** over any single roof plane.
- B. Correct out-of-tolerance work and other deficient conditions prior to proceeding with metal roof panel system installation.

3.2 PREPARATION

- A. **Miscellaneous Supports:** Install sub-framing, girts, furring, and other miscellaneous panel support members according to ASTM C 754 and manufacturer's written instructions.
- B. Flashings: Install flashings to cover exposed underlayment per Section 07 62 00 "Sheet Metal Flashing and Trim."

3.3 METAL PANEL INSTALLATION

- A. Exposed Fastener Metal Roof Panels: Install weathertight metal panel system in accordance with manufacturer's written instructions, approved shop drawings, and project drawings. Install metal roof panels in orientation, sizes, and locations indicated, free of waves, warps, buckles, fastening stresses, and distortions. Anchor panels and other components securely in place. Provide for thermal and structural movement.
- B. Panel Sealants: Install manufacturer's recommended tape sealant at panel sidelaps and endlaps.

- C. Panel Fastening: Attach panels to supports using screws, fasteners, and sealants recommended by manufacturer and indicated on approved shop drawings.
 - 1. Fasten metal panels to supports at each location indicated on approved shop drawings, with spacing and fasteners recommended by manufacturer.
 - 2. Provide weatherproof jacks for pipe and conduit penetrating metal panels of types recommended by manufacturer.
 - 3. Dissimilar Materials: Where elements of metal panel system will come into contact with dissimilar materials, treat faces and edges in contact with dissimilar materials as recommended by manufacturer.

3.4 ACCESSORY INSTALLATION

- A. General: Install metal panel trim, flashing, and accessories using recommended fasteners and joint sealers, with positive anchorage to building, and with weather tight mounting. Coordinate installation with flashings and other components.
 - 1. Install components required for a complete metal panel assembly, including trim, copings, flashings, sealants, closure strips, and similar items.
 - 2. Comply with details of assemblies utilized to establish compliance with performance requirements and manufacturer's written installation instructions.
 - 3. Set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently weather resistant.
- B. Joint Sealers: Install joint sealers where indicated and where required for weathertight performance of metal panel assemblies, in accordance with manufacturer's written instructions.
 - 1. Prepare joints and apply sealants per requirements of Division 07 Section "[Joint Sealants](#)."

3.5 CLEANING AND PROTECTION

- A. Remove temporary protective films immediately in accordance with metal roof panel manufacturer's instructions. Clean finished surfaces as recommended by metal roof panel manufacturer.
- B. Replace damaged panels and accessories that cannot be repaired to the satisfaction of the Architect.

END OF SECTION

SECTION 07540

THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Mechanically fastened, thermoplastic polyolefin (TPO) roofing system.
 - 2. Roof insulation.
 - 3. Cover board.
 - 4. Walkways.
- B. Section includes installation of sound-absorbing insulation strips in ribs of roof deck.
- C. Related Requirements:
 - 1. Section 07620 "Sheet Metal Flashing and Trim" for metal roof flashings and counterflashings.
 - 2. Section 07920 "Joint Sealants" for joint sealants, joint fillers, and joint preparation.

1.03 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary in NRCA's "The NRCA Roofing Manual: Membrane Roof Systems" apply to Work of this Section.

1.04 PREINSTALLATION MEETINGS

- A. Preliminary Roofing Conference: Before starting roof deck construction, conduct conference at Project site
 - 1. Meet with Construction Manager roofing Installer, roofing system manufacturer's representative, deck Installer, air barrier 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. Review deck substrate requirements for conditions and finishes, 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 affects roofing system.
 - 7. Review governing regulations and requirements for insurance and certificates if applicable.
 - 8. Review temporary protection requirements for roofing system during and after installation.
 - 9. Review roof observation and repair procedures after roofing installation.

1.05 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Include roof plans, sections, details, and attachments to other work, including the following:
 - 1. Layout and thickness of insulation.
 - 2. Base flashings and membrane termination details.
 - 3. Flashing details at penetrations.
 - 4. Tapered insulation layout, thickness, and slopes.
 - 5. Roof plan showing orientation of steel roof deck and orientation of roof membrane, fastening spacings, and patterns for mechanically fastened roofing system.
 - 6. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
 - 7. Tie-in with adjoining air barrier.
- C. Samples for Verification: For the following products:
 - 1. Roof membrane and flashings, of color required.
 - 2. Walkway pads or rolls, of color required.
- D. Wind Uplift Resistance Submittal: For roofing system, indicating compliance with wind uplift performance requirements.

1.06 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Product Test Reports: For roof membrane and insulation, for tests performed by a qualified testing agency, indicating compliance with specified requirements.
- C. Evaluation Reports: For components of roofing system, from ICC-ES.
- D. Field Test Reports:
 - 1. Fastener-pullout test results and manufacturer's revised requirements for fastener patterns.
- E. Sample Warranties: For manufacturer's special warranties.

1.07 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For roofing system to include in maintenance manuals.

1.08 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for roofing system identical to that used for this Project.
- B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.09 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. Protect roof 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.
- D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.10 FIELD 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.

1.11 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.
1. Special warranty includes roof membrane, base flashings, roof insulation, fasteners, cover boards, vapor retarder, and other components of roofing system.
 2. Warranty Period: 20 years from date of Substantial Completion.
- B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering the Work of this Section, including all components of roofing system such as roof membrane, base flashing, roof insulation, fasteners, cover boards, vapor retarders, and walkway products, for the following warranty period:
1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing system and 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. Roof system and flashings shall remain watertight.
1. Accelerated Weathering: Roof membrane shall withstand 20,000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
 2. Impact Resistance: Roof membrane shall resist impact damage when tested according to ASTM D 3746, ASTM D 4272, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.
- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roof membrane manufacturer based on testing and field experience.
- C. Wind Uplift Resistance: Roofing system shall be identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist wind uplift pressure calculated in accordance with ASCE 7-16.
- D. ENERGY STAR Listing: Roofing system shall be listed on the DOE's ENERGY STAR "Roof Products Qualified Product List" for low -slope roof products.
- E. EPA Energy Star: Roofing membrane shall achieve an initial reflectance of greater than 0.65 and a three year aged reflectance of greater than 0.50.
- F. Fire-Test-Response Characteristics: Provide roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL, FMG, or another testing and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
- G. Coping and Edge Metal: Provide prefabricated 24 gauge Steel with Kynar finish in manufacturers standard colors to be selected by owner. Edge metal must meet FM wind uplift requirements and have ES-1 test approval.

2.02 THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

- A. TPO Sheet: ASTM D 6878/D 6878M, internally fabric- or scrim-reinforced, TPO

1. Source Limitations: Obtain components for roofing system from roof membrane manufacturer.
2. Thickness: **60 mils (1.5 mm)**, nominal.
3. Exposed Face Color: Gray – Vertical Applications, White – Horizontal Applications

2.03 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with other roofing components.
- B. Sheet Flashing: Manufacturer's standard unreinforced TPO sheet flashing, [**55 mils (1.4 mm)**] thick, minimum, of same color as TPO sheet.
- C. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.
- D. Roof Vents: As recommended by roof membrane manufacturer.
 1. Size: Not less than 4-inch (100-mm) diameter.
- E. Bonding Adhesive: Manufacturer's standard bonding adhesive for membrane and base flashings.
- F. Metal Termination Bars: Manufacturer's standard, predrilled stainless steel or aluminum bars, approximately 1 by 1/8 inch (25 by 3 mm) thick; with anchors.
- G. Metal Battens: Manufacturer's standard, aluminum-zinc-alloy-coated or zinc-coated steel sheet, approximately 1 inch wide by 0.05 inch thick (25 mm wide by 1.3 mm thick), prepunched.
- H. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roofing components to substrate, and acceptable to roofing system manufacturer.
- I. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories. Limit unreinforced flashings and corners and must be manufacturer approved if used.
- J. Coping and Edge Metal: Provide prefabricated 24 gauge Steel with Kynar finish in manufacturers standard colors to be selected by Architect. Edge metal must meet FM wind uplift requirements and have ES-1 test approval.

2.04 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured by TPO roof membrane manufacturer.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2, felt or glass-fiber reinforced paper facer on both major surfaces.
 1. Compressive Strength: **20 psi (138 kPa)**
 2. Size: **48 by 96 inches (1219 by 2438 mm)**.
 3. Thickness:
 - a) Base Layer: 2 inches.
 - b) Upper Layer: 2 inches
- C. Tapered Insulation: Provide factory-tapered insulation boards.
 1. Material: Match roof insulation
 2. Minimum Thickness: 1/4 inch (6.35 mm).
 3. Slope:
 - a) Roof Field: [**1/2 inch per foot (1:48)**] unless otherwise indicated on Drawings.
 - b) Saddles and Crickets: [**1/2 inch per foot (1:24)**] unless otherwise indicated on Drawings.

2.05 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with other roofing system components.
- B. Fasteners: Factory-coated steel fasteners with metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening cover boards to substrate, and acceptable to roofing system manufacturer.
- C. Insulation Adhesive: Insulation manufacturer's recommended and approved adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
 - 1. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.
- D. Cover Board: ASTM C 1177/C 1177M, glass-mat, water-resistant gypsum board or ASTM C 1278/C 1278M fiber-reinforced gypsum board.
 - 1. Thickness: **1/4 inch (6 mm)**
 - 2. Surface Finish: **Factory primed**

2.06 WALKWAYS

- A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway [**pads**] [**or**] [**rolls**], approximately 3/16 inch (5 mm) thick and acceptable to roofing system manufacturer.
 - 1. Size: Approximately 30 wide (914 mm).
 - 2. Color: Contrasting with roof membrane.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
 - 1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
 - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
 - 3. Verify that surface plane flatness and fastening of steel roof deck complies with requirements in Division 5 "Steel Decking."
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing system 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.
- C. Install sound-absorbing insulation strips according to acoustical roof deck manufacturer's written instructions.

3.03 ROOFING INSTALLATION, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions, and FM Global Property Loss Prevention Data Sheet 1-29.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at end of workday or when rain is forecast. Remove and discard temporary seals before beginning Work on adjoining roofing.

3.04 INSULATION INSTALLATION

- A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at end of workday.
- B. Comply with roofing system and roof insulation manufacturer's written instructions for installing roof insulation.
- C. Installation Over Metal Decking:
 - 1. Install base layer of insulation with end joints staggered not less than 12 inches (305 mm) in adjacent rows and with long joints continuous at right angle to flutes of decking.
 - a) Locate end joints over top flange of decking.
 - b) Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - c) Make joints between adjacent insulation boards not more than 1/4 inch (6 mm) in width.
 - d) At internal roof drains, slope insulation to create a square drain sump with each side equal to the diameter of the drain bowl plus 24 inches (610 mm).
 - 1) Trim insulation so that water flow is unrestricted.
 - e) Fill gaps exceeding 1/4 inch (6 mm) with insulation.
 - f) Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
 - g) Loosely lay base layer of insulation units over substrate.
 - 2. Install upper layers of insulation **and tapered insulation** with joints of each layer offset not less than 12 inches (305 mm) from previous layer of insulation.
 - a) Install with long joints continuous and with end joints staggered not less than 12 inches (305 mm) in adjacent rows.
 - b) Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - c) Make joints between adjacent insulation boards not more than 1/4 inch (6 mm) in width.
 - d) At internal roof drains, slope insulation to create a square drain sump with each side equal to the diameter of the drain bowl plus 24 inches (610 mm).
 - 1) Trim insulation so that water flow is unrestricted.
 - e) Fill gaps exceeding 1/4 inch (6 mm) with insulation.
 - f) Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
 - g) Mechanically attach upper layer of insulation units to metal deck if cover board is not specified.

3.05 INSTALLATION OF COVER BOARDS

- A. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches (150 mm) in each direction.
 - 1. Trim cover board neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - 2. At internal roof drains, conform to slope of drain sump.
 - a) Trim cover board so that water flow is unrestricted.
 - 3. Cut and fit cover board tight to nailers, projections, and penetrations.
 - 4. Mechanically attach cover board to metal deck at minimum rate recommended by roof manufacturer.

3.06 MECHANICALLY FASTENED ROOFING INSTALLATION

- A. Mechanically fasten roof membrane over area to receive roofing according to roofing system manufacturer's written instructions.
- B. Unroll roof membrane and allow to relax before installing.
- C. For in-splice attachment, install roof membrane with long dimension perpendicular to steel roof deck flutes.
- D. Start installation of roofing in presence of roofing system manufacturer's technical personnel.
- E. Accurately align roof membrane, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- F. Mechanically fasten or adhere roof membrane securely at terminations, penetrations, and perimeter of roofing.
- G. Apply roof membrane with side laps shingled with slope of roof deck where possible.
- H. In-Seam Attachment: Secure one edge of TPO sheet using fastening plates or metal battens centered within seam, and mechanically fasten TPO sheet to roof deck.
- I. Seams: Clean seam areas, overlap roof membrane, and hot-air weld side and end laps of roof membrane and sheet flashings to ensure a watertight seam installation.
 - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of roof membrane and flashing sheet.
 - 2. Verify field strength of seams a minimum of twice daily, and repair seam sample areas.
 - 3. Repair tears, voids, and lapped seams in roof membrane that do not comply with requirements.
- J. Spread sealant bed over deck-drain flange at roof drains, and securely seal roof membrane in place with clamping ring.

3.07 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories, and adhere to substrates according to roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.08 WALKWAY INSTALLATION

- A. Flexible Walkways:
 - 1. Install flexible walkways at the following locations:
 - a) Perimeter of each rooftop unit.
 - b) Between each rooftop unit location, creating a continuous path connecting rooftop unit locations.
 - c) Between each roof hatch and each rooftop unit location or path connecting rooftop unit locations.
 - d) Locations indicated on Drawings.
 - 2. Provide 6-inch (76-mm) clearance between adjoining pads.
 - 3. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

3.09 FIELD QUALITY CONTROL

- A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion, in presence of Architect, and to prepare inspection report.
- B. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.
- C. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

3.10 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing system, inspect roofing system for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- 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.

3.11 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS _____ of _____, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
 - 1. Owner: <Insert name of Owner>.
 - 2. Address: <Insert address>.
 - 3. Building Name/Type: <Insert information>.
 - 4. Address: <Insert address>.
 - 5. Area of Work: <Insert information>.
 - 6. Acceptance Date: _____.
 - 7. Warranty Period: <Insert time>.
 - 8. Expiration Date: _____.
- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period Roofing Installer will, at Roofing Installer's own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
 - 1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a) lightning;
 - b) peak gust wind speed exceeding 120 mph (m/sec);
 - c) fire;
 - d) failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e) faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f) vapor condensation on bottom of roofing; and
 - g) activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.

2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.

1. Authorized Signature: _____.
2. Name: _____.
3. Title: _____.

END OF SECTION

SECTION 07620
SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

1.02 SUMMARY

- A. Section includes formed sheet metal component fabrications.

1.03 COORDINATION

- A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.
- B. Coordinate sheet metal flashing and trim installation with adjoining materials, joints, and seams to provide leak-proof, secure, and noncorrosive installation.

1.04 DEFINITIONS

- A. Terminology: See ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definitions of terms related to work in this Section.

1.05 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For materials and accessories.
- B. Executed Installer Warranty: Submit installer warranty executed in Owner's name.
- C. Executed Manufacturer Warranty: Submit manufacturer warranty executed in Owner's name.

1.06 QUALITY ASSURANCE

- A. Fabricator Qualifications: Employ skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver sheet metal flashing materials and fabrications undamaged. Protect sheet metal flashing and trim materials and fabrications during transportation and handling.
- B. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.

- C. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.

1.08 WARRANTY

- A. Installer Special Warranty: Installers special warranty covering defects resulting from materials and workmanship for the Work of this section.
 - 1. Defects include failure of the system to prevent water from entering the structure below or behind, and failure of materials to perform in the intended use.
 - 2. Warranty Period: Two (2) years from date of Substantial Completion.
- B. Special Painted Metal Finish Warranty: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Delta E units when tested in accordance with ASTM D2244.
 - b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- C. System and components shall comply with applicable state International Building Code (IBC) requirements including ANSI-SPRI/ES-1.
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 - 1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.02 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.

2.03 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.
- B. Fasteners: Wood screws, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.
 - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
 - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating. Provide metal-backed EPDM or PVC sealing washers under heads of exposed fasteners bearing on weather side of metal.
 - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
 - 2. Fasteners for Zinc-Coated (Galvanized) Aluminum-Zinc Alloy-Coated Steel Sheet: Series 300 stainless.
 - 3. Fasteners for attachment of wood nailers and blocking: Series 300 Stainless steel screws.
- C. Sealants and Tapes: As recommended by the system manufacturer

2.04 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with details shown and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required. Fabricate sheet metal flashing and trim in shop to greatest extent possible.
 - 1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
 - 2. Obtain field measurements for accurate fit before shop fabrication.
 - 3. Form sheet metal flashing and trim to fit substrates without excessive oil canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
 - 4. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.
- B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4-inch in 20-feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

- C. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.
 - 1. Use lapped expansion joint unless otherwise shown.
- D. Sealant Joints: Where movable, non-expansion type joints are required; form metal to provide for proper installation of elastomeric sealant as specified.
- E. Fabricate cleats and attachment devices from compatible metals and in accordance with ANSI-SPRI ES-1 requirements.
- F. Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use, rivet joints where necessary for strength.
- G. Do not use graphite pencils to mark metal surfaces.

2.05 SHEET METAL FABRICATIONS, GENERAL

- A. General: Any clarifications will be in accordance with National Roofing Contractors Association (NRCA) standards.
- B. Miscellaneous Sheet Metal Flashings and Trim:
 - 1. Fabricate from the following materials:
 - a. 24 ga. Galvanized steel with factory Kynar finish in color selected by Owner from manufacturer standard colors.
 - 2. Design intent is to match existing.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, substrate, and other conditions affecting performance of the Work.
 - 1. Verify compliance with requirements for installation tolerances of substrates.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
- B. Proceed with installation only after unsatisfactory conditions have been corrected. Installation of materials of this section indicates acceptance of substrates and conditions.

3.02 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 - 1. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of connections and sealant.
 - 2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating

sheet metal.

3. Install exposed sheet metal flashing and trim without excessive oil canning, and free of buckling and tool marks.
 4. Torch cutting of sheet metal flashing and trim is not permitted.
 5. Cut sheet metal with snips to provide clean edge cuts. Do not grind or abrade metal for cuts.
 6. Do not use graphite pencils to mark metal surfaces.
- B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.
1. Provide underlayment/separation sheet to protect metal from corrosion/galvanic action due to miscellaneous rough carpentry products.
 - a. Mid-States "Quick-Stick" HT, W R Grace "Ice & Water Shield HT".
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at maximum of 10-feet with no joints allowed within 24-inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges not less than 1-inch deep, filled with elastomeric sealant concealed within the joints.
- D. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1-1/2-inches for wood screws
- E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
- F. Seal joints as required for watertight assembly.
1. Use sealant-filled joints unless otherwise indicated. Embed hooked flanges of joint members not less than 1-inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F (4 deg C).
 2. Prepare joints and apply sealants to comply with manufacturer requirements.

3.03 WALL FLASHING INSTALLATION

- A. General: Install sheet metal wall flashing to intercept and exclude penetrating moisture according to SMACNA sheet metal standards unless a more stringent requirement has been provided for this project.
- B. Coordinate with flashing configurations indicated on Drawings.
- C. Coordinate installation of wall flashing with any wall transitions and wall-openings such as at windows, doors, miscellaneous penetrations and louvers.

3.04 INSTALLATION TOLERANCES

- A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4-inch in 20-feet on slope and location lines indicated on Drawings and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.05 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean off excess sealants.
- C. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturers written installation instructions. On completion of sheet metal flashing and trim installation, remove unused materials and clean finished surfaces as recommended by sheet metal flashing and trim manufacturer. Maintain sheet metal flashing and trim in clean condition during installation.
- D. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION

SECTION 07900
SEALANTS AND CAULKING

PART 1 - GENERAL

1.1 Quality Assurance:

A. Industry Standards:

1. Some products and execution are specified in this section by reference to published specifications or standards (with respective abbreviations used). These referenced publications may be subject to special conditions or limitations where specified hereinafter.

2. Reference Publications:

- a. American Society for Testing and Materials (ASTM).
- b. Federal Specifications (FS).

1.2 Related Sections:

- A. Section 04200, Unit Masonry
- B. Section 06200, Finish Carpentry and Millwork
- C. Section 06410, Cabinetwork
- D. Section 07240, Exterior Insulation and Finish System
- E. Section 07600, Metal Flashing and Sheet Metal Work
- F. Section 07610, Standing Seam Metal Roofing
- G. Section 08110, Steel Frames and Doors
- H. Section 08410, Aluminum Storefront Systems
- I. Section 09260, Gypsum Board Systems
- J. Section 09311, Ceramic Tile
- K. Section 09900, Painting

1.3 Definitions:

A. Sealant: A weatherproof elastomer used in filling and sealing joints, having properties of adhesion, cohesion, extensibility under tension, compressibility and recovery.

B. Caulk: Term used to denote the process of filling and sealing the joints, without regard to type of material.

1.4 Submittals:

- A. General: Make submittals in accordance with Section 01300.

B. Product Data: Manufacture's detailed descriptive and specification data for each type of sealant and joint filler described hereinafter; furnish color card showing full range of colors available.

1. For each sealant type, submit manufacturer's certification that product complies with South Coast Air Quality Management District Rule 1168 (Low / No VOC).

C Samples: For each type and color of sealant required accompanied by sample of joint filler.

1.5 Product Handling:

A. Delivery: Deliver the products of this section in manufacturer's original unopened packaging with labels intact and legible.

B. Storage and Protection: Store and protect products of this section in accordance with manufacturer's instructions.

1.6 Job Conditions:

A. Temperature: Do no caulking if ambient temperature is 32 degree F or below.

PART 2 - PRODUCTS

2.1 Materials:

A. Basis of Design: Products as listed in par. 2.1.B.

1. Product information is listed for reference purposes to establish material characteristics, quality, and finish. Alternate manufacturer's products shall meet or exceed the listed products.

B. Sealants:

1. Type 1: Single-component polyurethane, gun-grade, complying with FS TT-S-00230C, Type II, Class A; color as selected by Architect, equal to PPG-1418 Topgun 400.

2. Type 2: Two-component polyurethane, gun-grade, complying with FS TT-S-00227E, Type II, Class A; color as selected by Architect, equal to Sika 2cns.

3. Type 3: One-component acetoxysilicone, complying with FS TT-S-001543A, Type Non-Sag, Class A; white color - mildew resistant, equal to Tremco Proglaze.

4. Type 4: Acrylic latex, gun grade, paintable, complying with ASTM C834-86; white color, equal to PPG-1417 Topgun 240.

5. Type 5: Oleo-resinous compound, gun grade, non-staining, non-shrinking, and non-sagging, complying with FS TT-C-598b, equal to Alumilastic-5911 HZ.

6. Type 6: Elastomeric, ultra-low modulus designed for minimum 100% elongation and minimum 50% compression, meeting ASTM C-920 and ASTM C-1832.

7. Type 7: Elastomeric, ultra-low modulus designed for minimum 100% elongation and minimum 50% compression, meeting ASTM C-920 and ASTM C-1982. Sealant shall be approved by manufacturer of products for E.I.F. System, complying with ASTM C920, Grade NS, Class 25 or higher.

8. Type 8: One-part silicone rubber, non-slump, conforming to ASTM E814-88, UL rated for rating of construction with which used.

C. Joint Filler: Foam rod, approved by sealant manufacturer, sized to require 20% to 50% compression upon insertion.

D. Primer: Only that as recommended by the sealant manufacturer.

E. Application Equipment: Sealant application equipment shall be only such equipment as is specifically recommended by the manufacturer of the sealant being installed.

PART 3 - EXECUTION

3.1 Installation:

A. Preliminary Requirements:

1. Surface Preparation:

a. Surfaces to be sealed shall be sound, clean, dry, frost free and free of contamination by laitance, form release agents, concrete curing compounds or other surface treatments.

b. Masonry and concrete surfaces shall be wire brushed.

c. Metal, glass and wood surfaces shall be cleaned prior to applying sealants.

2. Masking: Surfaces adjacent to joints shall be masked to obtain a neat sealant line.

3. Joint Filler: Joints exceeding the maximum allowable depth as hereinafter described shall be filled to within the allowable depth with the specified joint filler.

4. Primer: Apply primer to surfaces to be caulked as recommended by the manufacturer of the sealant being installed.

B. Locations: As the work progresses caulk and seal all joints subject to movement or subject to passage of air or moisture.

1. Type 1 Sealant: Install wherever sealant is required in conjunction with metal roofing, metal flashings and sheet metal work.

2. Type 2 Sealant: Exterior and interior perimeter of windows and exterior door frames and louvers.

3. Type 3 Sealant: Around plumbing fixtures, at walls and floors, and at ceramic tile.

4. Type 4 Sealant: Around perimeter of interior metal door frames, and at interior of building where caulking is called for (i.e. wood trim at doors and interior windows, where dissimilar materials abut, wherever casing beads occur, etc.).

5. Type 5: Beneath metal thresholds.

6. Type 6 Sealant: Where sealant is required for joints in masonry, or as otherwise specified.

7. Type 7 Sealant: Where sealant is required for E.I.F. System, joints in brick masonry fiber-cement siding, or as otherwise specified.

8. Type 8 Sealant: Where sealant is required in fire rated walls floors or ceilings to maintain integrity of rated construction.

C. Application of Sealant:

1. Install sealant under pressure to fill joint, taking care to produce beads of proper width and depth; tool as recommended by the manufacturer; immediately remove all surplus sealant.

2. Width and depth of sealed joint shall not exceed the proportions of 1/2 inch width x 1/2 inch diameter and 3/4 inch width x 1/4 inch diameter, except that metal thresholds and sills shall be set in full bed of specified sealant.

3. All floor, wall, and joint penetrations shall be fully-sealed.

3.2 Field Quality Control:

A. Protection: To insure proper curing, sealed joints shall not be touched, washed or otherwise disturbed for 48 hours after installation unless specifically recommended otherwise by the sealant manufacturer.

END OF SECTION

SECTION 09900
PAINTING

PART 1 - GENERAL

1.1 Quality Assurance:

A. Manufacturers: All paints/stains selected for the coating and finishing system for each type of surface shall be the product of a single manufacturer and as described hereinafter.

1.2 Related Sections:

- A. Section 05500, Miscellaneous Metals
- B. Section 06200, Finish Carpentry and Millwork
- C. Section 07900, Sealants and Caulking
- D. Section 08110, Steel Frames and Doors
- E. Section 09260, Gypsum Board System

1.3 Definitions:

A. Paint: Term used in a general sense and has reference to sealers, primer, stains, oils, alkyd, latex, epoxy and enamel type paints.

B. Painting: Term used in a general sense and has reference to the application of "paint" without regard to the type of material, to an item.

C. Back Prime: Terms used in a general sense and has reference to the application of "paint" (first coat), without regard to the type of material, to the back side (unexposed to view) of an item.

1.4 Submittals:

A. General: Make submittals in accordance with Section 01300.

B. Material List: Prior to delivery of any paint materials to the project site, submit a complete list of all paint materials to be used in this project as described hereinafter.

C. Manufacturer's Data: Accompanying the materials list, furnish the paint manufacturers detailed descriptive and specification data and application instructions for each type of paint required including INTERIOR Green Seal Standard GS-11 compliance :

Architectural Paints: Flats:	50 g/L
Non-flats:	100 g/L
Coatings and Primers:	100 g/L

D. Color Cards: Manufacturer's full range of colors available for each finish described hereinafter in the "Painting Systems Schedule".

E. Color Samples:

1. After review of the material list color cards and manufacturer's data, but prior to delivery of any paint to the project site, submit color samples, not less than 12 inches x 12 inches each, for each type and color of finish required.

2. Wherever possible, the material upon which the sample colors are applied shall be the same material as that on which the paint will be applied in the project.

1.4 Product Handling:

A. Delivery: Deliver the products of this section in manufacturer's original unopened packaging with labels intact and legible.

B. Storage and Protection: Store products of this section in a housed, dry and ventilated area, and protect from damage.

1.5 Job Conditions:

A. Temperature: Maintain a constant temperature of not less than 65 degrees F during interior painting and drying operations.

B. Ventilation: Provide ventilation to allow for the proper drying of the paint materials by using either of the following:

1. Temporary air circulators (spark proof)
2. Air conditioning system.

PART 2 - PRODUCTS

2.1 Materials:

A. Manufacturers:

1. The use of manufacturer's names and products are for reference only to indicate characteristics of the material and the finished required.

2. Subsequent to the requirements of these specifications, acceptable manufacturers include:

- | | | |
|----|----------------------|-----|
| a. | Glidden Professional | GP |
| b. | Benjamin Moore | BM |
| c. | Devoe | D |
| d. | Pratt & Lambert | PL |
| e. | Pittsburg Paints | PPG |

B. Colors: Colors shall be as selected by the Architect.

C. Accessory Equipment: Ladders, scaffolding, drop clothes, scrapers, dusters and similar items are not required to be new, but they shall be safe, adequate and acceptable of producing the results for which they are intended.

D. Application Equipment: Brushes, rollers, spray apparatus and similar application equipment are not required to be new, but they shall be capable of producing the required results specified hereinafter.

E. Thinners: Only those recommended for that purpose by the manufacturer of the material being installed.

PART 3 - EXECUTION

3.1 Installation:

A. Surface Preparation:

1. General: Do not begin painting on any surface until it has been inspected and is in condition to receive the paint as specified herein. Should any surface be found unsuitable to produce a proper paint finish, the Architect shall be notified in writing and no material shall be applied until the unsuitable surfaces have been made satisfactory. Absence of such notification shall be construed as acceptance of such surface to receive paint. Later claims of defects in surfaces prior to painting shall not relieve the Contractor from his responsibility for compliance with the requirements of the Specifications.

2. Steel and Iron: Remove grease, dirt, mud, rust and scale. Touch up any chipped or abraded places on items that have been shop coated. Where steel and iron have a heavy coating of scale, it shall be removed by de-scaling or wire brushing to produce a smooth surface for painting.

3. Masonry: Masonry surfaces to be painted shall be prepared by removing all dirt, dust, oil and grease stains, mortar droppings, and efflorescence.

4. Plaster Surfaces: Fill all holes and cracks with spackling compound. Before painting any plaster, the surfaces shall first be tested for dryness with a moisture testing device especially designed for this purpose. No paint or sealer shall be applied on plaster when the moisture content exceeds 12% as determined by the testing device. Test sufficient areas in each space as often as necessary to determine the proper moisture content for painting. When requested, testing shall be done in the presence of the Architect, or his representative. If the moisture content is between 8% and 12% prime, with alkali resistant primer. If 85 or less, prime with the primer specified under "Schedule of Painting". Remove the dry salts deposits from all plaster surfaces by brushing with a stiff brush before painting.

5. Wood Surfaces: Primed and finish-coated as specified in the painting schedule herein. Wood surfaces shall be cleaned of all dirt, oil, or foreign substances with mineral spirits, scraper, sandpaper and/or wire brush. Finished surface exposed to view shall be made smooth by sandpapering. Small, dry, seasoned knots shall be surface scraped and cleaned and shall be given a thin coat of knot sealer before application of the priming coat. Pitch on large, open, unseasoned knots and on all other beads or streaks of pitch shall be scraped off, or if still soft, shall be removed with mineral spirits or turpentine and the resinous area thinly coated with knot sealer. After priming, all holes and imperfections in finish surface shall be filled with putty or plastic wood filler colored to match the finish coat, allowed to dry and sandpapered smooth. Painting shall proceed only when the moisture content of the wood does not exceed 12% as measured by a moisture meter. All wood trim shall be backed primed.

6. Exposed pipes and conduit shall be cleaned using mechanical cleaning and/or solvents, mineral spirits or other paraffin-free solvents having a flash point no higher than 100 degrees F. and shall be painted in accordance with the Painting Systems Schedule.

7. Hardware, hardware accessories, lighting fixtures, switch and outlet plates, in place and not to be painted shall be removed prior to surface preparation and painting operations or protected. Following completion of painting of each space, removed items shall be reinstalled.

B. Application and Instructions:

1. The proportions of all ingredients in all paints and stains mixed on the site shall be in accordance with the recommendations of the paint manufacturer printed on the container applicable to the particular use for which the specific mixture is intended. No thinner or flattening oil will be used in the last coat. Screen out all lumps and impurities during mixing using clean containers, and protect against dirt or trash entering the mix. Stir until uniform consistency is procured.

2. During the actual application and drying of the paint, and until normal occupancy of the building occurs, a minimum temperature of 65 degrees F. shall be maintained. This temperature shall be held as constant as possible to prevent condensation. Ventilation shall be provided at all times so that the humidity cannot rise above the dew point of the coldest wall.

3. Do not apply exterior paint in damp rainy weather or until the surface has dried thoroughly from the effects of such weather.

4. Surface to be stained or painted shall be clean, dry and smooth. Each coat of paint shall be smoothly applied, worked out evenly and allowed to dry before the subsequent coat is applied.

5. Enamel or varnish undercoats on wood surfaces and on steel surfaces shall be sanded smooth prior to recoating. Undercoats on steel and iron shall be dusted prior to recoating.

6. Finished work shall be uniform and of the specified color. It shall completely cover, be smooth and free from runs, sags, clogging or excessive flooding. Make edges of paint adjoining other materials or color, sharp and clean without overlapping. Where high gloss enamel is used, lightly sand undercoats to obtain a smooth finish coat.

7. Each coat of paint shall be slightly different shade than preceding coat. Final coat shall not be applied until the previous coat has been approved by the Contracting Officer.

8. Paste wood filler, applied on open grain wood, when "set" shall be wiped across the grain of the wood, then with the grain to secure a clean surface.

9. Correction of improper or damaged work may be by "spot touching" except that in final coat corrections, a re-coating of the entire surface between corners or "breaks" will be required without additional charge.

10. Access panels, registers, and grilles (except aluminum) shall be painted the same color as adjacent walls or ceilings. Where adjacent surfaces do not require painting, use color as directed by the Architect.

11. Where open cabinets or shelves occur, room finish on wall shall not be omitted. However, painting on walls will not be required behind permanently built-in cabinets with closed back.

12. Prime coated butts shall be painted the same color as door trim to which they are attached.

13. Exposed piping, conduit, duct work and hangers in finished spaces, shall be painted a color and texture to match walls or ceilings adjacent to them. Where adjacent surfaces are unpainted, use color as directed by the Architect.

14. The top and bottom edges of all wood and metal doors shall be finished with two coats of paint or varnish as used for finish coat. Apply after fitting and before faces are painted.

15. Cleaning: At completion of the work, clean all paint, coatings, oil and stain spots from all surfaces not required to be painted under this section. Remove all surplus materials and debris resulting from the work included herein.

16. Schedule indicates minimum number of coats. Additional coats shall be applied as required for full coverage.

C. Painting Systems Schedule:

1. Exterior Painting:

a. Ferrous Metal:

1) Primer – Multi Purpose Alkyd
One coat (in addition to shop coat):

GP	Devguard 4160 Tank & Structural Primer
BM	IMC Alkyd Metal Primer M06
D	MIRROLAC All Purpose Metal & Galvanized Primer - DP13201
PL	Steeltech® Rust Inhibitive Metal Primer
PPG	6-208 Speedhide Rust Inhibitive Primer

2) Finish - Rust Inhibitive Alkyd Gloss Industrial Enamel
Two coats:

GP	Devguard 4308 Alkyd Industrial Enamel
BM	IMC Alkyd Urethane M22
D	BAR-OX Alkyd Gloss Enamel - DP581XX
PL	S4500 Techgard® Maintenance Gloss Enamel
PPG	7 Line Industrial Enamel Gloss Oil

b. Galvanized Metal:

- 1) Primer – Multi Purpose Alkyd Primer
One coat:

GP Devguard 4160 Tank and Structural Primer
BM IMC Alkyd Metal Primer M06
D MIRROLAC All Purpose Metal & Galvanized
Primer - DP13201
PL S4556 Steeltech® Rust Inhibitive Metal Primer
PPG 90-712 Pitt-tech DTM Primer

- 2) Finish - Gloss Acrylic Enamel:
Two coats:

GP 4216 Devflex Direct to Metal Gloss Acrylic Enamel
BM D.T.M. (Direct to Metal) Acrylic Gloss Enamel M28
D
PL Z6611 Enducryl® Acrylic Gloss Enamel
PPG 90-374 Pitt-tech High Gloss DTM

c. Wood/Hardboard/Siding - Painted

- 1) Primer – Acrylic Wood Primer:
One Coat:

GP 6001 Glidden Professional HYDROSEALER
Primer Sealer
BM Moorecraft Super Spec Acrylic
Primer/Finish - DP85XX
D DRH6502 HYDRO-SHUR HYDROSEALER-WB
Waterborne Pigmented Bonding Coat
PL S8461 PRO-HIDE® Gold Exterior Latex Primer
PPG 17-921 Seal Grip Acrylic Primer

- 2) Finish - Acrylic Semi-Gloss Enamel
Two Coats:

GP 2406 Fortis 350 Semi-Gloss Enamel
((Dulux Professional)
D WONDER-GUARD Exterior Satin Paint - DR662XX
BM Moorcraft Super Spec® Latex House & Trim Paint 170
PL Z 8600 PRO-HIDE® Gold Exterior Latex Semi-Gloss
PPG 6-900 Speedhide Exterior Latex Semi-Gloss Enamel

d. Concrete/Stucco/Plaster

- 1) Primer – Acrylic Masonry Bonding Primer
One coat:

GP 3030 Glidden Concrete Coatings Bond Prep
BM Moore's® High Build Acrylic Masonry Primer (068
D Hydro-Shur Hydrosealer-WB Waterborne
Pigmented Bonding Coat - DRH6502
PL Z6300 PRO-HIDE® Gold Interior/Exterior Acrylic
Concrete & Stucco Primer Finish - Flat Acrylic Latex
PPG 4-603 Permacrete Hi Alkali Latex Primer

Two coats:

GP 2200 Fortis 350 Flat (Dulux Professional)
BM Super Spec No.171
D WONDER-GUARD Exterior Flat Paint - DR661XX
PL PRO-HIDE® Silver Exterior Latex Flat Z8450
PPG 6/650 Speedhide Exterior Acrylic Flat Latex

e. CMU (unpainted)

- 1) Primer – Acrylic Masonry Bonding Primer
One coat:

GP 3030 Glidden Concrete Coatings Bond Prep
BM Moore's® High Build Acrylic Masonry Primer (068
D Hydro-Shur Hydrosealer-WB Waterborne
Pigmented Bonding Coat - DRH6502
PL Z6300 PRO-HIDE® Gold Interior/Exterior Acrylic
Concrete & Stucco Primer Finish - Flat Acrylic Latex
PPG 4-603 Permacrete Hi Alkali Latex Primer

Two coats:

GP 2200 Fortis 350 Flat (Dulux Professional)
BM Super Spec No.171
D WONDER-GUARD Exterior Flat Paint - DR661XX
PL PRO-HIDE® Silver Exterior Latex Flat Z8450
PPG 6/650 Speedhide Exterior Acrylic Flat Latex

2. Interior Painting: Interior Green Seal Standard GS-11
Architectural Paints:
Flats: 50 g/L
Non-flats: 100 g/L
Coatings and Primers 100 g/L

a. Ferrous Metal:

- 1) Primer – Waterborne Metal Primer
One coat (in addition to shop coat):
- GP 4020 PF Devlex Direct to Metal Primer Flat Finish
 - BM Benjamin Moore® Super Spec HP® D.T.M.
(Direct to Metal) Acrylic Semi-Gloss P29
 - D Mirrolac WB Waterborne DTM Flat Primer & Finish
DP85XX
 - PL Z6650 Steeltech® Acrylic Prime or Finish
 - PPG 90-912 Pitt-tech DTM Primer
- 2) Finish, Latex Semi-Gloss
Two Coats:
- GP 1416 Glidden Ultra-Hide Latex Semi-Gloss
 - BM N333 Regal® Semi-Gloss Finish
 - D Wonder-Tones Semi-Gloss Interior Latex Enamel -
DR39XXN
 - PL Z2400 RedSeal® Interior Latex Semi-Gloss
 - PPG 6-500 Speedhide s/g Interior Latex Enamel

b. Galvanized Metal:

- 1) Primer – Waterborne Metal Primer
One coat (in addition to shop coat):
- GP 4020 PF Devlex Direct to Metal Primer Flat Finish
 - BM Benjamin Moore® Super Spec HP® D.T.M.
(Direct to Metal) Acrylic Semi-Gloss P29
 - D Mirrolac WB Waterborne DTM Flat Primer & Finish
DP85XX
 - PL Z6650 Steeltech® Acrylic Prime or Finish
 - PPG 90-912 Pitt-tech DTM Primer
- 2) Latex Semi-Gloss
Two Coats
- GP 1416 Ultra-Hide 150 Interior Latex Semi-Gloss
 - BM N333 Regal® Semi-Gloss Finish
 - D Wonder-Tones Semi-Gloss Interior Latex Enamel –
DR39XXN
 - PL Z2400 RedSeal® Interior Latex Semi-Gloss
 - PPG 6-500 Speedhide s/g Interior Latex Enamel

c. Masonry (Brick/CMU) previously painted

1) Primer – Acrylic Masonry Bonding Primer

One coat:

GP 3030 Glidden Concrete Coatings Bond Prep
BM Moore's® High Build Acrylic Masonry Primer (068
D Hydro-Shur Hydrosealer-WB Waterborne
Pigmented Bonding Coat - DRH6502
PL Z6300 PRO-HIDE® Gold Interior/Exterior Acrylic
Concrete & Stucco Primer Finish - Flat Acrylic Latex
PPG 4-603 Permacrete Hi Alkali Latex Primer

2) Finish - Latex Semi Gloss:

Two coats:

GP 1416 Ultra-Hide 150 Interior Latex Semi-Gloss
BM N333 Regal® Semi-Gloss Finish
D Wonder-Tones Semi-Gloss Interior Latex Enamel
DR39XXN
PL Z2400 RedSeal® Interior Latex Semi-Gloss
PPG 6-500 Speedhide s/g Interior Latex Enamel

d. Wood

1) Primer, Acrylic bonding stain-killer Primer/Sealer

One Coat:

GP 3210 Gripper Int/Ext Primer
BM Fresh Start® All-Purpose 100% Acrylic Primer 023
D Primz 220 Kilstain WB Interior/Exterior latex
All Purpose Stain Killer/Primer/Sealer - DR5180X
PL Z6650 Steeltech® Acrylic Prime or Finish
PPG 17-921 Seal Grip Acrylic Primer

2) Finish - Latex Semi Gloss:

Two coats:

GP 1416 Ultra-Hide 150 Interior Latex Semi-Gloss
BM N333 Regal® Semi-Gloss Finish
D Wonder-Tones Semi-Gloss Interior Latex Enamel
DR39XXN
PL Z2400 RedSeal® Interior Latex Semi-Gloss
PPG 6-500 Speedhide s/g Interior Latex Enamel

e. Gypsum Board/Plaster (previously painted)

- 1) Primer, Acrylic Bonding Stain Killer Primer/Sealer
One coat:

GP 3210 Gripper Int/Ext Primer
BM 023 Fresh Start® All-Purpose 100% Acrylic Primer
D Primz 220 Kilstain WB Interior/Exterior latex
All Purpose Stain Killer/Primer/Sealer - DR5180X
PL Z6650 Steeltech® Acrylic Prime or Finish
PPG 17-921 Seal Grip Acrylic Primer

- 2) Finish, Ceilings, Latex Flat
Two coats:

GP 1210 Glidden Ultra-Hide 150 Interior Flat Latex
BM Moorcraft Super Hide® Latex Flat 282
D Wonder-Tones Interior Flat latex Wall Paint
DRN36XX
PL RedSeal® Porcelain™ Interior Flat Acrylic Latex
Wall Coating - Z3700/F3700
PPG 6-70 Speedhide Interior Flat Latex

- 3) Finish, Walls, Latex Eggshell:
Two coats:

GP 1410 Glidden Ultra-Hide 150 Low Sheen Eggshell
BM Moorcraft Super Hide® Latex Eggshell Enamel C286
D Wonder-Tones Flat Interior Latex Wall Paint
DR36XXN
PI Z8290 Pro-Hide® Gold Interior Latex Eggshell
PPG 6-411 Speedhide Interior Latex Eggshell

f. Gypsum Board, New

- 1) Primer, latex PVA
One Coat:

GP 1030 PVA Latex Wall Primer Sealer
BM Moorcraft Super Craft® Interior Latex Primer 250
D Primz 220 Interior Latex PVA Wall Primer - DR53360
PL Z8190 Pro-Hide® Silver Interior Latex PVA Wall
Primer
PPG 6-2 Speedhide Interior Latex Primer Sealer

- 2) Finish, Ceilings, Latex Flat
Two coats:

GP 1210 Glidden Ultra-Hide 150 Interior Flat Latex
BM Moorcraft Super Hide® Latex Flat 282
D Wonder-Tones Interior Flat latex Wall Paint - Dr36xxn
PL RedSeal® Porcelain™ Interior Flat Acrylic Latex
Wall Coating - Z3700/F3700
PPG 6-70 Speedhide Interior Flat Latex

3) Finish, Walls, Acrylic Eggshell:
Two coats:

GP 1410 Glidden Ultra-Hide 150 Low Sheen Eggshell
BM Moorcraft Super Hide® Latex Eggshell Enamel C286
D Wonder-Tones Flat Interior Latex Wall Paint - Dr36xxn
PL Z8290 Pro-Hide® Gold Interior Latex Eggshell
PPG 6-411 Speedhide Interior Latex Eggshell

3.2 Field Quality Control:

A. Painting:

1. During progress of the work, do not allow the accumulation of empty containers or other excess items except in areas specifically set aside for that purpose.

2. Prevent accidental spilling of paint materials and, in event of such spill, immediately remove all spilled material and the waste or other equipment used to clean up the spill, and wash the surfaces to their original undamaged condition.

3. Upon completion of this portion of the work, visually inspect all surfaces and remove all paint and traces of paint from surfaces not scheduled to be painted.

END OF SECTION