

INVITATION TO BID (ITB) Contract #: O-0524

THEA Transportation and Management Office Renovation

ITB Issue Date & Cone of Silence Effective Date: 3/8/2024

ITB Addendum 1 Issue Date: 3/15/2023

ITB Response Due Date: 5/6/2024

RESPONSIBLE DEPARTMENT

Operations: PM-Brian Pickard, Director of Operations

PROCUREMENT DEPARTMENT

Shannon Bush, Contracts and Procurement Manager 1104 East Twiggs Street, Suite 300 Tampa, Florida 33602 Telephone Number: (813) 272-6740

Email: Procurement@tampa-xway.com

THE RESPONSIBILITY OF SUBMITTING A BID PROPOSAL PACKAGE IN RESPONSE TO THIS SOLICITATION DOCUMENT TO THEA ON OR BEFORE THE STATED DEADLINE SHALL BE SOLELY AND STRICTLY OF THE BIDDER. THEA SHALL IN NO WAY BE RESPONSIBLE FOR DELAYS CAUSED BY THE UNITED STATES MAIL, OR ANY OTHER DELIVERY SERVICE, OR CAUSED BY ANY OTHER OCCURRENCE.

BIDDERS SHALL READ THE SOLICITATION DOCUMENTS IN IT'S ENTIRETY PRIOR TO SUBMITTING A BID PROPOSAL PACKAGE.

BY SUBMITTING A BID PROPOSAL PACKAGE, THE BIDDER ACKNOWLEDGES THEY HAVE READ, UNDERSTAND, AND ACCEPT THE TERMS AND CONDITIONS TO BE MET AND THE CHARACTER AND QUALITY OF THE SCOPE OF WORK TO BE PROVIDED

Legal Entity Name (Bidder):		
Address of Bidder:		
FEIN:		
Name of Authorized Officer:	Title:	
E-mail:	Phone Number:	

ADDENDUM NO. 1

Some of the Attachments for this Project include documents exempt from public disclosure as provided by Section 119.071(3)(b), Florida Statutes. In order to receive all Attachments, Bidders MUST complete the Authority's Exempt Documents Form. The Exempt Documents Form shall be executed by the Bidder's authorized representative, or, if the Bidder is not an architect, contractor or engineering firm, the Bidder's Project engineer who will be identified in its response package may execute the Authority's Exempt Form on behalf of the Bidder. Anyone obtaining a OneDrive File Share will be required to provide a copy of their valid form of I.D., their business card, and if applicable, documentation exhibiting their Florida engineering, architectural or contractor's license number (such as a business card with their license number). Please contact the Procurement Office at procurement@tampaxway.com to request your link. The Authority will only provide access to the OneDrive link to one representative per Bidder, architect, contractor or engineering firm.

Exhibits

- A. Scope of Work
- B. Public Entity Crime
- C. Drug-Free Workplace
- D. Bid Proposal Form
- E. Bid Tabulation Sheet
- F. Conflict of Interest Form
- G. Experience and References
- H. Certification Regarding Scrutinized Companies List
- I. Insurance Requirements, Coverage and Limits
- J. Bid Bond
- K. Payment and Performance Bond
- L. Exempt Documents/Security System Plan Distribution Form
- M. Acknowledgement of Receipt of Addendum/Letter of Clarification

References/Attachments/Construction Drawings/Specification Attachment(s)-

- 1. THEA Specification Manual (attaching to ITB)
- 2. 23062 THEA Office Remodel Arch S&S
- 3. Elec FIN Review S&S
- 4. Energy Calcs- S&S
- 5. THEA Mech100 CDs SS

I. INTRODUCTION

The Tampa-Hillsborough County Expressway Authority (THEA) is soliciting sealed bids from qualified contractors to provide minor interior renovation of multiple offices in the current THEA building for the Tampa Hillsborough Expressway Authority (THEA) Headquarters, located at 1104 E. Twiggs St, suite 300, Tampa, FL 33602.

II. INSTRUCTIONS TO BIDDERS

- THEA must receive all submittals at the location, date, time and method identified in Section VI., Schedule of Events. Any submittal received after the stated time and date shall not be considered. It shall be the sole responsibility of the firm to have its package electronically submitted to THEA. THEA will not accept other delivery methods. Delay in delivery shall not be the responsibility of THEA. Submittals received after the deadline shall not be considered.
- 2. Each bidder shall examine all documents and shall determine all matters relating to the interpretation of such documents.
- 3. The following exhibits are required by THEA to be completed by the bidder and submitted as part of the bid proposal package:
 - B. Public Entity Crime
 - C. Drug-Free Workplace
 - D. Bid Proposal Form
 - E. Bid Tabulation Sheet
 - F. Conflict of Interest Form
 - G. Experience and References
 - H. Certification Regarding Scrutinized Companies List
 - I. Exempt Documents/Security System Plan Distribution Form
- 4. A Surety Commitment Letter is required to be submitted as part of the bid proposal package. The bidder is required to provide proof of bonding capacity and provide acknowledgment by the bidder's surety of the ability to provide the required Payment and Performance Bond and Bid Bonds.
- 5. Proof of Insurance is required to be submitted as part of the bid proposal package. The bidder must provide evidence of the bidder's ability to provide the insurance coverage required in Exhibit I Insurance Requirements, Coverages, and Limits, either by means of an existing policy or other verifiable proof (such as an Agent/Broker commitment letter).
- 6. Each bidder shall submit a Bid Tabulation Sheet, Exhibit E, quantifying all costs affiliated with the Scope of Work.
- 7. Bid proposal packages are to only be submitted electronically to THEA's Procurement e-mail inbox. One (1) original, combined pdf bid proposal package and the required forms above must be delivered to THEA's Procurement Department, clearly labeled, "Bid Proposal Package O-0524:THEA Transportation and Management Office Renovation" sent to:

Procurement Office Procurement@tampa-xway.com

8. THEA shall not be liable for any expenses incurred in the preparation of the bid proposal package.

- 9. THEA reserves the right to accept or reject any or all bid proposal packages, to waive irregularities and technicalities, and to request resubmission or to re-advertise for all or any part of the work. THEA shall be the sole judge of the submittals and the resulting negotiated agreement that is in THEA's best interest, and THEA's decision shall be final.
- 10. THEA requires all bidders to perform a Mandatory Site Visit. Any bidder failing to complete the Mandatory Site Visit will be deemed non-responsive and eliminated from further consideration. The Mandatory Site Visit will be in coordination with both the Procurement and Operations offices as identified in Section VI., Schedule of Events.
- 11. The successful bidder shall be required to execute an agreement, in form and content acceptable to THEA, indemnifying and holding harmless THEA, its officials, officers, employees, and agents from all claims.

12. CONE OF SILENCE

Bidders, their agents, or associates shall refrain from contacting or soliciting any THEA staff, the consultants representing THEA regarding this ITB or members of the Board of Directors directly or indirectly regarding this ITB one this solicitation once the ITB is published and until the Board of Directors has made a final decision to award the contract. Failure to comply with this provision may result in the disqualification of the firm.

AT THE DISCRETION OF THEA, ANY VIOLATION OF THE REQUIREMENTS SET FORTH IN THIS SECTION SHALL CONSTITUTE GROUNDS FOR IMMEDIATE REJECTION OF THE BID PROPOSAL PACKAGE AND THE BIDDER SHALL BE DEEMED NON-RESPONSIVE.

13. Questions about this ITB for interpretation, clarification or about the project must be in writing addressed to THEA Procurement Department at Procurement@tampa-xway.com. To be considered, such requests must be received no later than the date and time states for the **Deadline for Respondent's submission of questions to THEA** referenced in **Section VI., Schedule of Events.** Questions received after the date will not be considered.

III. QUALIFICATIONS:

- 1. The bidder must include with its bid proposal package all completed required forms as indicated in **Section II**, **Instructions to Bidders**. Failure to submit all completed forms may be cause for rejection at the sole discretion of THEA.
- 2. Before any award is made, THE requires satisfactory evidence to show that the bidder is fully prepared in every way to execute the work promptly and satisfactorily and has been regularly engaged in such work. Bidders must submit the following documentation of the bidder's qualifications:
 - Firm's prior experience including a minimum of three projects of similar size and scope (office renovations of greater than \$250,000 in contract value) within the last 5 years on Form F.
 - Include the resume of the Bidder's proposed Project Manager and Superintendent showing experience on projects of similar size and scope.
 - Evidence of proper state general contractor's licensure.

IV. DOING BUSINESS IN THE STATE OF FLORIDA

All bidders shall be in good standing with and authorized to do business in the State of Florida. Furthermore, it is the responsibility of the bidder to confirm that all of its subcontractors are also in good standing and authorized to do business in the State of Florida as may be required pursuant to §607.1501, §605.0902, and §605.0905 Florida Statutes.

If a bidder is not required to register pursuant to Florida Statutes, the successful bidder shall be able to submit documentation demonstrating non-applicability of the statute.

THEA shall not execute an agreement if the successful bidder and subcontractors are not registered and in good standing to do business in the State of Florida as required by the referenced Florida Statutes.

V. SELECTION PROCESS

THEA intends to purchase the products/services from the responsible and responsive bidder. The selection process for this ITB will consist of the following.

Bid Proposal Packages will be evaluated on whether the bidder is responsible and responsive to this solicitation and meets all requirements within the ITB, and the Scope of Work, with the objective to evaluate those bids and responses and to award a contract for the work to the most qualified bidder.

THEA will determine if the bid is responsive and is a responsible bidder, in its sole and absolute discretion, considering all relevant facts and information. THEA reserves the right at its sole discretion to reject any and all bids if it is determined the total bid price is excessive, best offers are determined to be unreasonable or it is in THEA's best interest to do so.

The required Bid Bond and Performance and Payment Bond forms, Exhibits J and K, are to be submitted to the THEA Procurement Office of the bidder with the responsive bid proposal package, after Board approval of Final Ranking and Award of Contract.

FINAL SELECTION:

The bidder with the responsive bid proposal package will be presented to THEA's Board of Directors for consideration and approval with a recommendation that the bidder be selected per the Schedule of Events below.

VI. SCHEDULE OF EVENTS

DATE	DESCRIPTION	LOCATION	
March 8, 2024, by 5:00 PM	Advertisement Published	THEA Website & Demandstar	
March 25- 29 th , between 7	Mandatory Site Visit	Email to coordinate: Procurement@tampa-	
am to 4 pm		xway.com	
		Location: THEA Office	
		1101 E. Twiggs Street, Suite 300	
		Tampa, FL 33602	

April 10, 2024, by 9:00 AM	Deadline for Respondent's submission of questions to THEA	Email to Procurement@tampa-xway.com
April 22, 2024, by 5:00 PM	Deadline for THEA to respond to Respondent's questions	THEA Website & Demandstar
May 6, 2024, by 12:00 PM	Deadline for Submitting Bid Proposal Package	Email to Procurement@tampa-xway.com
May 7, 2024, @ 11:15 AM	Public Opening of Bid Proposal Packages	THEA Office 1101 E. Twiggs Street, Suite 300 Tampa, FL 33602
May 9, 2024, by 5:00 PM	Post Notice of Intended Ranking	THEA Website & Demandstar
May 20, 2024, @ 1:30 PM	Board Approval of Final Ranking & Award of Contract	THEA Office 1101 E. Twiggs Street, Suite 300 Tampa, FL 33602
May 21, 2024, by 5:00 PM	Posting of Award of Contract	THEA Website & Demandstar

VII. TERMS AND CONDITIONS

THEA reserves the right to reject all bid proposal packages, any bid proposal packages not conforming to this Invitation to Bid, and to waive any irregularity or informality with respect to any proposal. THEA further, reserves the right to request clarification of information submitted and to request additional information from one or more firms.

THEA requires that the bidder selected will not discriminate under the agreement against any person in accordance with federal, state, and local governments' regulations. THEA requires the bidder selected make an affirmative statement to the effect that their retention shall not result in conflict of interests with respect to THEA.

THEA requires that the bidder make an affirmative statement to the effect that they have not contacted, or attempted to contact, any member of the Board of Directors, or THEA staff, except as expressly permitted in the ITB.

SECTION 01 1000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Phased construction.
 - 4. Work performed by Owner.
 - 5. Multiple Work Packages.
 - 6. Work under Owner's separate contracts.
 - 7. Future work not part of this Project.
 - 8. Owner's product purchase contracts.
 - 9. Owner-furnished/Contractor-installed (OFCI) products.
 - 10. Owner-furnished/Owner-installed (OFOI) products.
 - 11. Contractor-furnished/Owner-installed (CFOI) products.
 - 12. Contractor's use of site and premises.
 - 13. Coordination with occupants.
 - 14. Work restrictions.
 - 15. Specification and Drawing conventions.
 - 16. Miscellaneous provisions.

1.3 DEFINITIONS

A. Work Package: A group of specifications, drawings, and schedules prepared by the design team to describe a portion of the Project Work for pricing, permitting, and construction.

1.4 PROJECT INFORMATION

- A. Project Identification: This is a minor interion renovation of multiple offices in the current THEA building. The scope includes:
 - 1. Level one:
 - a. Reconfiguration of an existing lobby area. This space is 871 Square Feet and will require the relocation of an existing partition including the hosted door and door hardware, removal of existing floor finishes, millwork. Reconfiguration of lighting and mechanical ductwork and the installation of a new ceiling grid. There are no structural impacts, new partitions are non-rated metal stud frame with gyp on both sides up to 6" past the ceiling.
 - b. There will be also new returns added to the main lobby area to fix current pressurization issues.
 - c. An existing conference room will be split into 2 equal offices. The GC will need to relocate AV equipment and return to owner. The new office spaces will require new light fixtures, new ceiling grid, new floor finishes. There are

no structural impacts, new partitions are non-rated metal stud frame with gyp on both sides up to 6" past the ceiling.

- 2. Level 2:
 - a. Two offices will be combined to make one new office. The new office space will require new light fixtures, new ceiling grid, new floor finishes. There are no structural impacts, new partitions are non-rated metal stud frame with gyp on both sides up to 6" past the ceiling.
- 3. Level 3:
 - a. (3) Existing cubicles will need to be removed from an open office area and returned to the owner. The existing office adjacent to the open office area will be enlarged requiring the ceilings inside the space to be adjusted and will also require the addition of light fixture. The existing ceilings, finishes and lighting in the remaining of the open offices will be demo, the space will be split into 2 equal offices. The new offices will have new partitions that are non-rated metal stud frame with gyp on both sides up to 6" past the ceiling. The ceilings will be acoustical ceiling tiles with 2x4 light fixtures. Some of the light fixtures and diffusers adjacent to the new offices will need to be reconfigured.
- 4. Project Location: 1104 E Twiggs St STE 300, Tampa, FL 33602.
- B. Owner: Tampa Hillsborough Expressway Authority
 - 1. Owner's Representative:
 - 2. Judith Villegas
 - 3. (813) 440-7930
 - 4. 1104 E Twiggs Street, Tampa, FL 33602
 - 5.
 - 6. 2. Architect: HNTB One Tampa City Center, 201 N. Franklin St., Suite 1200 Tampa, FL 33602.
 - 7. Architect's Representative:
 - a. Andrés Chacón
 - b. AIA | NCARB | LEED® AP
 - c. Aviation Project Manager
 - d. <u>ajchacon@hntb.com</u>
 - e. Cell (813) 399-2453
- C. Architect's Consultants: Architect has retained the following design professionals, who have prepared designated portions of the Contract Documents:
 - 1. Mechanical/Electrical/Fire Protection: Emerald Engineering Inc.
 - a. Representative:
 - b. Michael A. Costello, PE | LEED AP
 - c. office 813.995.0300|mobile 813.758.9808
 - d. 9942 Currie Davis Dr., Ste. H, Tampa, FL 33619
 - e.

1.5 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and includes, but is not limited to, the following:
 - 1. Project includes the remodeling of existing offices spaces, this will require partial demolition, reconfiguration of existing spaces. The remodeling of spaces doesn't require structural scope, doesn't impact
- B. Type of Contract:
 - 1. Project will be constructed under a single prime contract.
- C. Contractor's Responsibilities: The Work includes the following, as applicable:

- 1. Designate delivery dates of Owner-furnished products in Contractor's construction schedule, utilizing Owner-furnished earliest available delivery dates.
- 2. Review Owner-reviewed Product Data, Shop Drawings, and Samples, noting discrepancies and other issues in providing for Owner-furnished products in the Work.
- 3. Receive, unload, handle, store, protect, and install Owner-furnished products.
- 4. Make building services connections for Owner-furnished products.
- 5. Protect Owner-furnished products from damage during storage, handling, and installation and prior to Substantial Completion.
- 6. Repair or replace Owner-furnished products damaged following receipt.
- D. Restricted Use of Site: Each Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
 - 1. Desired Sequence:
 - 2. First Floor, Third Floor and Second Floor
- E. Limits on Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Driveways, Walkways and Entrances: Keep driveways parking garage, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
- F. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.
- G. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.6 COORDINATION WITH OCCUPANTS

- A. Partial Owner Occupancy: Owner will occupy the premises during entire construction period, with the exception of areas under construction. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations. Maintain existing exits unless otherwise indicated.
 - Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
 - 2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
 - 3. CONTRACTOR All Work at the site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER's written consent.
- B. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with

completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.

- Architect will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner acceptance of the completed Work.
- 2. Obtain a Certificate of Occupancy from authorities having jurisdiction before limited Owner occupancy.
- 3. Before limited Owner occupancy, mechanical and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed. On occupancy, Owner will operate and maintain mechanical and electrical systems serving occupied portions of Work.
- 4. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of Work.

1.7 WORK RESTRICTIONS

- A. Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.
 - 2. The areas that the contractor can use is limited to the owner's parking lot that will be marked off for material storage and contractor parking. It is directly West of the THEA warehouse.
- B. On-Site Work Hours: Limit work to between 8:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise indicated. Work hours may be modified to meet Project requirements if approved by Owner and authorities having jurisdiction.
 - 1. Weekend Hours: Contractor to coordinate with owner's representative.
 - 2. Early Morning Hours:
 - 3. Contractor to coordinate with owner's representative.
 - 4. Hours for Utility Shutdowns: Contractor to coordinate with Owner's representative.
- C. Pre-Bid Conference will be held at appointed time by owner as stated in contract documents. Interested Contractors shall join the meeting via video conference as described in the Bid Advertisement.
- D. Bidders may visit unrestricted areas of the site during normal work hours on the date specified by owner in the contract documents, as scheduled with THEA and Owner's Representative. Interested bidders should contact the Owner's Representative, The site visit is encouraged to allow bidders to examine the existing building layout and conditions, take measurements and familiarize themselves with the requirements of the project. No additional information will be provided or questions answered during site visits.
- E. No deliveries should be made between the hours of 5:00 P.M. to 8:00 A.M. or on Saturday or Sunday, without the written permission of the Owner.
- F. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging for temporary utility services according to requirements indicated:
 - 1. Notify Owner two days in advance of proposed utility interruptions.
 - 2. Obtain Owner's written permission before proceeding with utility interruptions.
- G. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Owner not less than two days in advance of proposed disruptive operations.
 - 2. Obtain Owner's written permission before proceeding with disruptive operations.

- H. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances within the existing building is not permitted.
- I. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.
- J. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
 - 1. Maintain list of approved screened personnel with Owner's representative.
 - 2. Contractor shall not employ any Subcontractor, Supplier or other person or organizations (including those acceptable to Owner as indicated in paragraph 6.8.2) whether initially, or as a substitute, against whom Owner may have reasonable objection.
- K. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours, and Contractor will not permit overtime work or the performance of Work on Saturday, Sunday, or any legal holiday without Owner's written consent.

1.8 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Text Color: Text used in the Specifications, including units of measure, manufacturer and product names, and other text may appear in multiple colors or underlined as part of a hyperlink; no emphasis is implied by text with these characteristics.
 - 3. Hypertext: Text used in the Specifications may contain hyperlinks. Hyperlinks may allow for access to linked information that is not residing in the Specifications. Unless otherwise indicated, linked information is not part of the Contract Documents.
 - 4. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 00 Contracting Requirements: General provisions of the Contract, including General and Supplementary Conditions, apply to all Sections of the Specifications.
- C. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- D. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings and published as part of the U.S. National CAD Standard.

3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

END OF SECTION 01 1000

EXHIBIT B

PUBLIC ENTITY CRIMES FORM

SWORN STATEMENT UNDER SECTION 287.133(3)(a), FLORIDA STATUTES

,	[print individual's name and title]
	[print name of entity submitting sworn statement]
wl	nose business address is
an	d (if applicable) its Federal Employer Identification Number (FEIN) is
(If	The entity has no FEIN, include the Social Security Number of the individual signing this
SW	vorn statement:)
tra sta pro Sta	anderstand that a "public entity crime" as defined in a Paragraph 287.133(1)(g), Florida Statute cans a violation of any state or federal law by a person with respect to and directly related to the insaction of business with any public entity or with an agency or political subdivision of any other error of the United States, including, but not limited to, any bid or contract for goods or services to be evided to any public entity or an agency or political subdivision of any other state or of the United ates and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material states are presentation.
me in	anderstand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statute cans a finding of guilt or a conviction of a public entity crime, with or without an adjunction of guany federal or state trial court of record relating to charges brought by indictment or information after 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
Ιu	nderstand that an "affiliate" as defined in Paragraph 287.133 (1)(a), Florida Statutes, means:
i.	A predecessor or successor of a person convicted of a public entity crime; or
ii.	An entity under the control of any natural person who is active in the management of the entity are who has been convicted of a public entity crime. The term "affiliate" includes those officer directors, executives, partners, shareholders, employees, members, and agents who are active in the management of the affiliate. The ownership by one person of shares constituting a controlling

5. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of

affiliate.

interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an

EXHIBIT B

6.	goods or services let by a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity. Based on the information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. [indicate with a check mark which statement applies.]
	Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.
	The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent of July 1, 1989.
	The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent of July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. [attach a copy of the final order]
PUBLICAND, TIS FILLE ENTER 287.017	ERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE C ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT ED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO RING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 7, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION AINED IN THIS FORM.
	Signature
_	Date
State o	of
County	y of
	PERSONNALLY APPEARED BEFORE ME, the undersigned authority,
	who, after first being sworn by me, affixed his/her signature in Jame of individual signing]
	ace provided above on this day of, 20
-r ·	
Notary	Public My commission expires:

EXHIBIT B

[Notary Seal]

EXHIBIT C

DRUG-FREE WORKPLACE FORM

The under	signed firm, in accordance with Florida Status 287.087 hereby certifies that
	does:
	Name of Business
1.	Publish a statement of notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2.	Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3.	Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in Paragraph 1.
4.	In the statement specified in paragraph 1, notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employees will abide by the terms of a statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Florida Statute 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5.	Impose a sanction of, or require the satisfactory participation in a drug abuse assistance or rehabilitation program is such is available in the employee's community, by any employee who is convicted.
6.	Make a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs 1 thru 5.
As the per requireme	rson authorized to sign this statement, I certify that this firm complies with the above nts.
Firm	a's Signature
	Date

EXHIBIT D

PRICE PROPOSAL FORM

(Print this page on bidder's letterhead and attach with response)

Date:		
TAMPA-HILLSBOROUGH COUNTY E	EXPRESSWAY AUTHORITY (THI	EA)
Attention: Procurement Department		
Shannon Bush, Contracts and Procurement	Manager	
1104 East Twiggs Street, Suite 300 Tampa, FL 33602		
Subject:		
Dear THEA:		
Having carefully examined the Instruction Provisions, Supplementary General Provisions, Supplementary General Provided Prawings (if issued), of the above subjecting the work, the undersigned proposition necessary and to accomplish the entire value documents for the prices presented in the prices.	visions, Special Provisions and Te ect project and contract, as well as ses to furnish all labor and materials work within the time period indica	chnical Specifications, Plans or the premises and the conditions called for by them and equipment ted in accordance with the said
The undersigned acknowledges that they amounts indicated with brackets around t project cost. Calculations of price schedule deductive and additive pay items.	the amounts are considered to be de	ductions or credits to the overall
TOTAL LUMP SUM PRICE: \$		
WRITTEN AMOUNT:		
	DOLLARS AND	CENTS
The undersigned firm agrees to keep this of Twenty (120) days after date of opening the		undred
The signer of this bid proposal package he interested in this bid proposal package as without connection with any other personall respects fair and in good faith, without	principals are named herein, that the persons, company or parties subm	is bid proposal package is made
Name of Respondent		
Authorized Signature	Date	<u></u>



BID TABULATION TEMPLATE

COMPANY NAME	
PROJECT NAME	
PROJECT NO.	
BID DATE	

		BID QUANTITIES	ENGINEER'S ESTIMA		MATE		
REF NO.	BID ITEM NO.	ITEM DESCRIPTION	QTY	UNIT	UNIT PRICE	BID A	AMOUNT
1	1.001	Example	1	LS	500	\$	500.00
2						\$	-
3						\$	-
4						\$	-
5						\$	-
6						\$	-
7						\$	-
8						\$	-
9						\$	-
10						\$	-
11						\$	-
12						\$	-
13						\$	-
14						\$	-
15						\$	-
16						\$	-
17						\$	-
18						\$	-
19						\$	-
21						\$	-
22						\$	-
23						\$	-
24						\$	-
25						\$	-
		TOTAL BID AMOUNT	1		500		500.00

EXHIBIT F

CONFLICT OF INTEREST STATEMENT

Check one of	the boxes below:				
	To the best of our knowledge, the undersigned bidder has no potential conflict of interest due to any other clients, contracts, or property interest for this solicitation and project.				
	<u>OR</u>				
	The undersigned bidder, by attachment to this form, submits information which <u>may</u> be a potential conflict of interest due to other clients, contracts or property interest for this solicitation and project.				
	BIDDER:				
	By:Authorized Signature				
	Printed Name of Signer				
	Title of Signer				
	Date Signed				

EXPERIENCE AND REFERENCES

3.0	Exper	ience:		
	3.0.1.		the total work volume and value that your sible for in the past five years in:	our organization has been
		a.	Total Dollar value	
		b.	Number of Contracts	
	3.0.2.		ne dollar volume and number of governileted in the past 5 years:	ment projects you have
		a.	Dollar Value	
		b.	Number of government projects	

- Provide the following information on at least three (3) projects that Bidder has performed within the past five (5) years that were similar to this project with a contract value of at least \$250,000. List chronologically, starting with the last project. Complete a new questionnaire for each representative project.
- 3.2 Provide your Florida General Contractor's License Number and Expiration Date.

	3.2.1	Project Title:	
a.	Date Project Co	ompleted:	<u>-</u>
b.	Project Name:		_
c.	Owner Name:		
d.		:	
e.		one:	
f.	-	ence for this Project:	
g.		Reference to Owner:	-
h.	•	on Reference held for this Project:	
i.	Firm name who	ere Reference was employed for this Project:	
j.	Reference's Te	lephone:	_
k.	Dollar Amount:		
1.		pecial criteria i.e. specialized re <u>pa</u> ir or equipment, etc. worked:	
m.	Describe Your S	Specific Scope of Work:	-
n.	GeneralContra	ct Amount:	
o.	Your Participati	on was:	
p.	•	te:	
q.		mpleted on time?	
r.		mpleted within budget?	
		plain:	
S.	Penalties impos	ed? (Yes or No; if Yes, explain)	
t.	Any liens, claim	ns, or lawsuits? (Yes or No, if Yes, explain):	
u.		or Small Business Enterprise (SBE) percentage goal was required, indicate that success did your firm have in achieving the goal.	
v.	Provide names	and phone numbers of the D/W/MBE or SBE firms used on the project:	
w.	Any other pertin	nent information?	

[Use additional sheets as necessary]

	3.2.2	Project Title:	
a.	Date Project Co	ompleted:	<u>-</u>
b.	Project Name:		_
c.			
d.		:	
e.		ne:	
f.	Name of Refere	ence for this Project:	_
g.		Reference to Owner:	
h.	Title and Position	on Reference held for this Project:	
i.	Firm name who	ere Reference was employed for this Project:	
j.	Reference's Te	lephone:	-
k.	Dollar Amount:		
1.		pecial criteria i.e. specialized re <u>pa</u> ir or equipment, etc. worked:	
m.	Describe Your S	Specific Scope of Work:	-
n.	GeneralContrac	et Amount:	
o.	Your Participati	on was:	
p.	•	te:	
q.		mpleted on time?	
r.		mpleted within budget?	
		xplain:	
S.	Penalties impos	ed? (Yes or No; if Yes, explain)	
t.	Any liens, claim	s, or lawsuits? (Yes or No, if Yes, explain):	
u.		or Small Business Enterprise (SBE) percentage goal was required, indicate hat success your firm have in achieving the goal.	
v.	Provide names	and phone numbers of the D/W/MBE or SBE firms used on the project:	
w.	Any other pertin	nent information?	

[Use additional sheets as necessary]

	3.2.3	Project Title:	
a.	Date Project Co	ompleted:	_
b.	Project Name:		
c.	Owner Name:		
d.		::	
e.	Owner Telepho	one:	
f.	Name of Refere	ence for this Project:	_
g.		Reference to Owner:	
h.	Title and Position	on Reference held for this Project:	
i.	Firm name who	ere Reference was employed for this Project:	
j.	Reference's Te	lephone:	
k.			
1.	List any other s	pecial criteria i.e. specialized repair or equipment, etc. worked:	
m.	Describe Your S	Specific Scope of Work:	-
n.	GeneralContra	ct Amount:	
0.	Your Participati	on was:	
p.	Completion Da	te:	
q.	Was Project co	mpleted on time?	
r.		mpleted within budget?	
s.	Penalties impos	ed? (Yes or No; if Yes, explain)	
t.	Any liens, claim	ns, or lawsuits? (Yes or No, if Yes, explain):	
u.		or Small Business Enterprise (SBE) percentage goal was required, indicate that success did your firm have in achieving the goal.	
v.	Provide names	and phone numbers of the D/W/MBE or SBE firms used on the project:	
w.	Any other pertin	nent information?	

[Use additional sheets as necessary]

EXHIBIT H

CERTIFICATION REGARDING SCRUTINIZED COMPANIES LISTS

This certification is required pursuant to Florida Statute, Section 287.135.

Respondent / Bidder

A company that, at the time of bidding or submitting a proposal for a new contract or renewal of an existing contract, is on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, Iran Terrorism Sectors List, or is engaged in business operations in Cuba or Syria, is ineligible for, and may not submit a proposal for, or enter into or renew a contract with an agency or local government entity for goods or services of \$1 million or more.

Name:			
Respondent /Bidder FID or EIN:			
Address:			
City:	State:	Zip:	
I hereby warrant that I listed above as the "Ro	am duly authorized to sign and espondent/Bidder".	bind on behalf of the company	
not listed on either the Scrutinized Companie	Scrutinized Companies with Acs s with Activities in the Iran Petro	ve as the "Respondent/Bidder" is stivities in Sudan List or the pleum Energy Sector List, created ed in business operations in Cub	
•	to Florida Statute, Section 287. ct the Respondent/Bidder to civ	135, the submission of a false il penalties, attorney's fees and/o	
	RESPONDEN	T/BIDDER:	
	By:(Authorized Sig	gnature)	
	(Printed Name	e of Signer)	
	(Title of Signer	r)	
	(Date Signed)		

EXHIBIT I

INSURANCE REQUIREMENTS, COVERAGES and LIMITS for

Tampa-Hillsborough County Expressway Authority

Consultants, Contractors and Vendors, hereinafter referred to collectively and individually as "Insured" conducting business with the Tampa-Hillsborough County Expressway, "THEA" are required to maintain adequate insurance coverage and provide insurance certification to THEA.

A. **INSURANCE REQUIREMENTS:**

- All insurance shall be from responsible insurance companies eligible to do business in the State of Florida and having an AM Best rating of A- or better and a financial size category of VII or better. Utilization of non-rated companies or companies with AM Best ratings lower than Aor a financial size category lower than VII may be approved on a case by case basis. If the insurer does not meet these requirements, THEA retains the right to approve or disapprove the use of the insurer.
- 2) INSURED'S liability policies, other than the Workers' Compensation and Professional Liability, shall provide that THEA, its officials, officers and employees are additional named insureds as to the operations of the INSURED under this AGREEMENT.
- 3) INSURED'S liability policies, other than the Workers' Compensation and Professional Liability, shall provide the "Severability of Interest" provision (a/k/a "Separation of Insureds" provision).
- 4) The INSURED'S Certificate of Insurance(s) shall provide THEA as an additional certificate holder for all policies issued.
- 5) The INSURED'S Certificate of Insurance(s) shall state the description of the operations, i.e., "Name of Agreement" between THEA and "Name of Insured" and shall state the Contract Number assigned for the AGREEMENT between THEA and the INSURED.
- 6) The INSURED shall deliver to THEA, within ten (10) days from the receipt of a Notice of Award of this AGREEMENT, properly executed Certificate(s) of Insurance on insurance industry standard certificate of insurance form(s) (example: ACORD form) setting forth the insurance coverages and limits required herein. All of the required insurance coverages shall be issued as required by law and shall be endorsed, where necessary, to comply with the minimum requirements contained herein.
- 7) Except as otherwise specified in the AGREEMENT, the insurance will commence on or prior to the effective date of the AGREEMENT and will be maintained in force throughout the duration of the AGREEMENT. Three years' completed operations coverage may be required to be maintained on specific commercial general liability policies and/or professional liability policies effective on the date of substantial completion or the termination of the AGREEMENT, whichever is earlier.
- 8) Aggregate Policy Limits on policies required of INSURED shall apply exclusively for this AGREEMENT.
- 9) INSURED authorizes THEA to verify its insurance information with its insurance agents, brokers, surety, and insurance carriers. At THEA'S request, INSURED shall provide copies of the policies at no cost to THEA, subject to redaction by the INSURED of any proprietary information.
- All insurance coverages of the INSURED shall be primary to any insurance or self-insurance programs carried by THEA; and any THEA insurance or coverages shall not be contributory to INSURED'S insurance requirements in this AGREEMENT.

- 11) The insurance coverages and limits required of the INSURED under this AGREEMENT are designed to meet the minimum requirements of THEA. They are not designed as a recommended insurance program for the INSURED. The INSURED alone shall be responsible for the sufficiency of its own insurance program.
- 12) All policies of insurance required herein will be specifically endorsed to require the insurer provide THEA with thirty (30) days notice prior to any cancellation, intent not to renew any policy and/or any change that will reduce the insurance coverages required in this AGREEMENT, except for the application of the Aggregate Limits Provisions.

The endorsement will specify that such notice will be sent to:

Tampa-Hillsborough County Expressway, (THEA) Contracts & Procurement Manager 1104 East Twiggs St, Suite 300 Tampa, FL 33602

- 13) THEA accepts no responsibility for determining whether the INSURED'S insurance is in full compliance with the insurance required by the AGREEMENT. Neither the approval by THEA nor the failure to disapprove the insurance furnished by the INSURED will relieve the INSURED of their full responsibility to provide the insurance required by this AGREEMENT.
- 14) If the INSURED fails to provide or maintain the insurance coverages required in this AGREEMENT, THEA may terminate or suspend this AGREEMENT, or, at the THEA'S sole discretion, may obtain such coverages and invoice the INSURED and include a 15% administrative cost. If not paid within 45 days, the amount will be deducted from INSURED'S invoice. The decision of THEA to purchase such insurance coverages shall in no way be construed as a waiver of its rights under this AGREEMENT.
- 15) INSURED shall fully comply with the insurance requirements of this AGREEMENT unless excused in writing by THEA. Any deductible applicable to any claim shall be the responsibility of the INSURED.
- 16) Any liability insurance aggregate limits are to be confirmed in writing by the respective insurance company that to their knowledge, as of the date of the AGREEMENT, there are no pending claims or legal actions against the INSURED, which if resolved in favor of the claimant would impair the insurance company's ability to cover the minimum insurance limits stated herein.
- 17) Current Insurance Service Office (ISO) policies, forms, and endorsements or broader shall be used where applicable. Notwithstanding the foregoing, the wording of all policies, forms, and endorsements must be acceptable to THEA without restrictive endorsement.
- 18) The INSURED will not commence work, use or occupy THEA premises in connection with the AGREEMENT until the required insurance is in force, preliminary evidence of insurance acceptable to THEA has been provided to THEA and THEA has granted permission to the INSURED to commence work or use or occupy the premises in connection with the AGREEMENT.
- 19) Upon request, the INSURED shall promptly make available a certified, true and exact copy of the insurance policy and endorsements issued to the policy and any renewal thereof for THEA'S review and inspection. In the event of cancellation or non-renewal of this insurance, the INSURED agrees to purchase the maximum "extended claims reporting period" permitted under the policy within the time allowed, unless replacement coverage is obtained with retroactive coverage applicable as of the date the INSURED services started under this AGREEMENT.

20) All insurance minimum coverage limits extend to any subcontractor and the Prime INSURED is responsible for all subcontractors.

B. <u>INSURANCE COVERAGES and LIMITS:</u>

For the term of this AGREEMENT the INSURED shall procure and maintain insurances of the types and limits specified herein.

1) Workers' Compensation and Employers' Liability Insurance - The minimum limits of Worker's Compensation/Employer's Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) are:

Workers' Compensation	Florida Statutory Requirements
Employers' Liability	·
Each Accident	\$500,000
Disease – Policy Limit	\$500,000
Disease - Each Employee	\$500,000

2) **Commercial General Liability Insurance -** The minimum limits of Commercial General Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) are:

General Aggregate	\$1,000,000
Per Person	\$1,000,000
Each Occurrence	\$2,000,000
Personal Injury	\$1,000,000
Property Damage	\$1,000,000
Products & Completed Operations	\$1,000,000

The General Aggregate Limit must be specifically applicable to the AGREEMENT between THEA and the INSURED.

The Certificate must reflect whether the policy is "claims made" or "occurrence".

Products & Completed Operations coverage to be maintained for three (3) years after final completion of the work under this AGREEMENT.

3) **Business Automobile Liability Insurance -** The minimum limits of Business Automobile Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) covering ownership, maintenance, use, loading and unloading of all its owned, non-owned, leased or hired vehicles are:

Bodily Injury	
Each Person	\$1,000,000
Each Accident	\$1,000,000
Property Damage	\$1,000,000
Bodily Injury & Property Damage Combined	\$1,000,000

4) Umbrella Liability Insurance or Excess Liability Insurance – Umbrella Liability Insurance or Excess Liability Insurance must provide the same coverages as required for the underlying Commercial General, Business Automobile and Employers' Liability Coverages with no gaps in continuity of coverages or limits.

Bodily Injury & Property Damage Combined

Each Occurrence	\$2,000,000
Aggregate (specific to this AGREEMENT)	\$2,000,000
Aggregate (not specific to this AGREEMENT)	\$1,000,000

5) **Professional Liability Insurance, also known as "Errors and Omissions".** The minimum limits of Professional Liability Insurance covering all work of the INSURED without any exclusions unless approved in writing by THEA are:

Professional Liability
Each Claim \$1,000,000
Aggregate \$1,000,000

Any deductible applicable to any claim shall be the responsibility of the INSURED and shall not be greater than \$100,000 unless approved by THEA in writing. This coverage shall be maintained by the INSURED for a period of not less than three (3) years from the date the INSURED has completed and THEA has accepted the services under this AGREEMENT.

6) **Environmental Impairment (Pollution) Liability, (if required)** – Environmental Impairment (Pollution) Liability insurance is required **only** if specifically stated in the Instructions and Submittal Documents package.

<u>If required</u>, the minimum limits of Environmental Impairment (Pollution) Liability insurance coverage (inclusive of any amount provided by an umbrella or excess policy) for liability resulting from pollution or other environmental impairment in connection with operations performed by or on behalf of INSURED under this AGREEMENT or the use or occupancy of THEA premises by or on behalf of the INSURED are:

Each Occurrence \$1,000,000 Annual Aggregate \$1,000,000

[END OF INSURANCE REQUIREMENTS, COVERAGES AND LIMITS]

EXHIBIT J

BID BOND

KNOW ALL MEN BY THES	PRESENTS, that we				
(Here In after called the "Pri	cipal") and				
	y"), a Corporation chartered and existing under the laws of the State of ncipal offices in the City of	:			
and authorized to do busine: Hillsborough County Expres	s in the State of Florida are held firmly bound unto the Tampa- way Authority, in the full and just sum of	ıd			
County Expressway Authorit	ollars (\$), equal to 10% of the bid amount, good ar atesof America, to be paid upon demand of the Tampa-Hillsborough , to which payment well and truly to be made we bind ourselves, our ars, and assigns, jointly and severally by these presents.				
	WHEREAS, the Principal is about to submit, or has submitted to the Tampa-Hillsborough County Expressway Authority, a proposal for the				
	ires to file this bond in accordance with law, in lieu of a certified check uired to accompany this Proposal.	or			
Principal shall, within ten (10 execute a contract in accord forth therein in the form and Authority and execute a suff Hillsborough County Expres the work ". then this obligate and the Surety shall, upon factority apon	onditions of this obligation are such that if the Proposal is accepted, the days after the date of receipt of a written notice of Award of Contract, ince with the Proposal and upon the terms, conditions and prices set manner required by the Tampa-Hillsborough County Expressway sient and satisfactory Public Construction Bond, payable to the Tampaway Authority and deliver documents which are condition to commence on to be void; otherwise to be and remain In full force and virtue in law lure within the time specified above, immediately pay to the aforesaid remand the amount thereof in good and lawful money of the United enalty, but as liquidated damages.	- ing			
IN TESTIMONY THEREOF, and Sealed this	he Principal and Surety have caused these presents to be duly signed day of 20				
	Principal				
(Seal)	BY:				
	Surety				
(Seal)	BY:				
	Countersigned				

CERTIFICATE AND AFFIDAVIT FOR SURETY BOND INSURER

TO: TAMPA-HILLSBOROUGH EXPRESS RE: REQUEST FOR PROPOSALS NO	WAY AUTHORITY ; PROJECT:
Address:	
AMOUNT OF BOND:SURETY BOND INSURER	
Address:	
Before me, the undersigned authority, per on thisday ofaccordance with Section 287.0935, Flore	ersonally appeared,, 20who hereby certifies that, in ida Statutes, the insurer named above:
invitation to bid is Issued; 4. Is otherwise in compliance with the prov	g it to write surety bonds in Florida; ital required by the Florida Insurance Code at the time the isions of the Florida Insurance Code; and ority issued by the United States Department of the
	Signature of Officer of Surety Insure
STATE OF:	
COUNTY OF: THE FOREGOING INSTRUMENT was swday of, 20 producedas identification	orn to, subscribed and acknowledged before me this _by who is personally known to me orhas on and did take an oath.
	taining identification, fill in appropriate identification
	Notary Public
	(Printed Name of Notary)
	My Commission Expires:
	Serial Number, if any)

For Clerk of the Court Recording Purposes

Return to: Contracts Manager
Tampa Hillsborough Expressway Authority
1104 East Twiggs St., Suite 300
Tampa, FL 33602

BOND NO:

PERF	ORMANCE	BOND

corpora corpora HILLS	THIS BOND, We,
	THE CONDITION OF THIS BOND is that if Principal:
1.	Performs the contract dated, 20 between Principal and Owner for construction of the at the Tampa-Hillsborough County Expressway Authority, Request for Proposals (RFP) Contract No, at the times and in the manner prescribed in the contract, the contract being made a part of this bond by reference, and
2.	Pays Owner all loss, damages including delay damages, including but not limited to liquidated damages, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and
3.	Performs the guarantee of all work and materials furnished under the Contract for the time specified in the Contract for construction and any applicable warranty period, then this bond is void otherwise it remains in full force

The Surety, for value received, agrees that any changes, extensions of time, or additions to the Terms of the Contract Documents, and neither compliance nor noncompliance with any formalities connected with the contract or the changes shall not affect Surety's obligation under this bond. Surety hereby waives notice of any such changes.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

DATED ON:	, 20
Name of Principal (Contractor):	Name of Surety:
By:	By: Attorney in Fact
Name:	Name:
Title:	
Address:	Address:
Telephone No	
Fax No.	Fax No.
STATE OF	: :
COUNTY OF	:
, 20by	ENT was acknowledged before me this day or /, who is personally known to me as identification and did not take an oath obtaining identification, fill in appropriate identification number.]
My Commission Expires:	Notary Public
	(Printed Name of Notary)
This form complies with Section 255.05, Florida Statutes	(Serial Number, if any)

CERTIFICATE AND AFFIDAVIT FOR SURETY BOND INSURER

TO:	TAMPA HILLSBOROUGH COUNT	Y EXPRESSWAY AUTHORIT	Y (THEA)	
RE:				
	PROPOSER: Name:			
	Address:			
	Talambana			
	AMOUNT OF BOND:			
	SURETY BOND INSURER: Name:			
	Address:			
	Talanhana			
Befor	re me, the undersigned authority, pers 20 who hereby certifies		on this day e:	
1. 2. 3.	Is licensed to do business in the State Holds a certificate of authority authority authority authority authority authority authority authority that twice the minimum surplus and the time the invitation to bid is issued is otherwise in compliance with the	orizing it to write surety bonds d capital required by the Flori ed; provisions of the Florida Insur	da Insurance Code at ance Code; and,	
5.				
STAT	Signa : :	ture of Officer of Surety Insur	er	
COU	NTY OF :			
	THE FOREGOING INSTRUMENT _ day of onally known to me or has prod			
perso	onally known to me or has prod did take an oath.	uced	as identification	
	ry, check appropriate blank; and,	if obtaining identification, f	ill in appropriate identification	
	Notary Public	Printed Name of No	tary	
Му С	ommission Expires:			
		(Serial Number, if a	ny)	

For Clerk of the Court Recording Purposes

Return to: Contracts Manager
Tampa Hillsborough Expressway Authority
1104 East Twiggs St., Suite 300
Tampa, FL 33602

BOND NO:

PAY	MENT	BOND
-----	-------------	-------------

. / \	MEINT BOND	
BY T	HIS BOND, We,	, a
corpo	ration, as Principal , and	a
corpo	HIS BOND, We,	are bound to the TAMP
HILLS	SBOROUGH COUNTY EXPRESSWAY AUTHORIT	Γ Y , herein called Owner , in the sum θ
	, for payment of which we	
repres	sentatives, successors, and assigns, jointly and sever	rally.
	THE CONDITION OF THIS BOND is that if Principa	al:
1.	Promptly makes payment to all claimants, as define supplying Principal with labor, materials, or supplie in the prosecution of the work provided for in the cor	es, used directly or indirectly by Princip ntract dated, 20
	between Principal and Owner for construction o), the Contract being made a part of t	this bond by reference; and
2.	Pays Owner all loss, damages expenses, costs, a proceedings, that Owner sustains because of a related to payment for such labor, materials, or sup bond is void; otherwise it remains in full force.	default by Principal under the contra
•	changes in or under the contract documents and colities connected with the contract or the changes do ond.	·

Certain claimants seeking the protection of this Bond must timely comply with the strict requirements set forth in Section 255.05, Florida Statutes, and as otherwise provided by law.

DATED ON:	, 20	
Name of Principal (Contractor):	Name of Surety:	
By:	By: Attorney in Fact	
Name:		
Title:		
Address:	Address:	
Telephone No.		
Fax No.	Fax No	
STATE OF	:	
COUNTY OF	:	
known to me or has produced	NT was acknowledged before me this day or by, who is personally as identification and dicate blank; and, if obtaining identification, fill in appropriate	
My Commission Expires:	Notary Public	
	(Printed Name of Notary)	
This form complies with Section 255.05, Florida Statutes	(Serial Number, if any)	

EXHIBIT K

CERTIFICATE AND AFFIDAVIT FOR SURETY BOND INSURER

Му Со	mmission Expires:			
	Notary Public	Printed Name of Notary		-
	y, check appropriate bla	ank; and, if obtaining identification, fill in appropriate ident	ifica	ation
dentifi	s personally known to n cation and did take an o	ne or nas produced path.		_ as
ne thi		, 20 by ne or has produced		
	THE FOREGOING IN	STRUMENT was sworn to, subscribed and acknowledged	d be	fore
COUN	TY OF	· :		
STATE	OF	:		
		Signature of Officer of Surety Insurer		
<i>.</i>		asury under Section 9304 to 9308 of Title 31 of the		
4. 5.	Is otherwise in complia	nce with the provisions of the Florida Insurance Code; and, certificate of authority issued by the United States		
3.		n surplus and capital required by the Florida Insurance witation to bid is issued;		
2.		uthority authorizing it to write surety bonds in Florida;		
1.		who hereby certifies that, the insurer hamed above. ess in the State of Florida;		
Before	me, the undersigned	authority, personally appeared, who hereby certifies that, the insurer named above:	on	this
	Telephone:			
	Address:			
	-			
	SURETY BOND INSUI Name:			
	AMOUNT OF BOND:			
	Telephone:			
	Address:			
	Name:			
	PROPOSER:			

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

THEA MODIFIED 050-020-26 STATE HIGHWAY ENGINEER 07/22 Page 1 of 2

EXEMPT DOCUMENTS / SECURITY SYSTEM PLAN DISTRIBUTION FORM

Exempt Documents being requested or received are included in those exempt from public disclosure as provided by Section 119.071(3)(b), Florida Statutes (Attached). **Security System Plans** being requested are confidential and exempt as provided by Section 119.071(3)(a), Florida Statutes (Attached). The Exempt Documents relate to work being performed for or required by the Tampa-Hillsborough County Expressway Authority (THEA) or work related to the Authority's structures. The following information is being provided as a record of this request or receipt, the Proposer's certifications herein, and distribution of the Exempt Documents or Security System Plans.

Completion of this form and a signature is required before information will be released (* Indicates Required to Obtain Security System Plans):

A. Entity Requesting/Received	ing Documents: (Provide Full Nar	me of Entity)	
Architect:			
Engineer:			
Contractor:			
Other:			
B. Name of person receiving	g Exempt Documents / Security F	Plans: (Printed):	
Title:			
Signature:			Date:
Email:		FL PE License No. (if applicable	e):
Drivers License or photo identif	ication number of recipient:		
C. Name of Entity intending	to Propose on RFP O-0622:		
D. Relationship of Person re	eceiving Exempt Documents if no	ot employee of Entity intending to	Propose on RFP:_
E. Reason for Request/Intend	led Use:		
F. RECIPIENT CERTIFICATION: ertification block)	I, personally, and as authorized rep	presentative of the above Proposer en	tity, fully understand (check the applicable
the exempt nature of the Florida law.	Exempt Documents I am receiving	g and agree to maintain the exempt	status of this information in accordance with
	npt nature of the Security System F lans in accordance with Florida law		aintain the confidential and exempt status of
G. THEA Employee Providing	Exempt Documents or Security	Plans:	
THEA Office:		Employee Name:	
H. Signature of THEA Employ	/ee Authorizing Distribution:		Date:
Provider's Signati	ure (if different than person authe	orizing distribution):	
I. Method of delivery:	Pick-up by Requestor		
Date Provided:			

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

THEA MODIFIED 050-020-26 STATE HIGHWAY ENGINEER 07/22 Page 2 of 2

EXEMPT DOCUMENTS / SECURITY SYSTEM PLAN DISTRIBUTION FORM

EXEMPT DOCUMENTS - Section 119.071(3)(b), Florida Statutes, provides:

Building plans, blueprints, schematic drawings, and diagrams, including draft, preliminary, and final formats, which depict the internal layout and structural elements of a building, arena, stadium, water treatment facility, or other structure owned or operated by an agency are exempt from s. 119.07(1) and s.24(a), Art. I of the State Constitution. This exemption applies to building plans, blueprints, schematic drawings, and diagrams, including draft, preliminary, and final formats, which depict the internal layout and structural elements of a building, arena, stadium, water treatment facility, or other structure owned or operated by an agency before, on, or after the effective date of this act. Information made exempt by this paragraph may be disclosed to another governmental entity if disclosure is necessary for the receiving entity to perform its duties and responsibilities; to a licensed architect, engineer, or contractor who is performing work on or related to the building, arena, stadium, water treatment facility, or other structure owned or operated by an agency; or upon a showing of good cause before a court of competent jurisdiction. The entities or persons receiving such information shall maintain the exempt status of the information.

SECURITY SYSTEM PLAN - Section 119.071(3)(a), Florida Statutes, provides:

As used in this paragraph, the term "security system plan" includes all Records, information, photographs, audio and visual presentations, schematic diagrams, surveys, recommendations, or consultations or portions thereof relating directly to the physical security of the facility or revealing security systems; Threat assessments conducted by any agency or any private entity; Threat response plans; Emergency evacuation plans; Sheltering arrangements; or Manuals for security personnel, emergency equipment, or security training. A security system plan or portion thereof for: Any property owned by or leased to the state or any of its political subdivisions; or Any privately owned or leased property held by an agency is confidential and exempt from s. 119.07(1) and s. 24(a), Art. I of the State Constitution. This exemption is remedial in nature and it is the intent of the Legislature that this exemption apply to security system plans held by an agency before, on, or after the effective date of this paragraph. Information made confidential and exempt by this paragraph may be disclosed by the custodian of public records to The property owner or leaseholder; or Another state or federal agency to prevent, detect, guard against, respond to, investigate, or manage the consequences of any attempted or actual act of terrorism, or to prosecute those persons who are responsible for such attempts or acts.

EXHIBIT M

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM / LETTER OF CLARIFICATION

Were Addenda issued on this Solicitation?	?
Yes	
☐ No	
Were Letter of Clarification issued on this	Solicitation?
Yes	
☐ No	
I (We) hereby acknowledge receipt of the this solicitation by listing the Addenda by	following Addendum/Addenda issued in reference to number, date and signing the form:
Addendum	Date:
Letter of Clarification	Date:
	RESPONDENT:
	By:(AUTHORIZED SIGNATURE)
	(Printed Name of Signer)
	(Title of Signer)
	(Date Signed)

SECTION 001000 - TABLE OF CONTENTS

Division	Section Title	Issue Date	Revision Date	
001100	TABLE OF CONTENTS	03/07/23		
DIVISION	01 - GENERAL REQUIREMENTS			
01040 01095 01330 01340 01740	PROJECT COORDINATION DEFINITIONS AND STANDARDS DESIGN SUBMITTALS SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES WARRANTIES	03/07/23 03/07/23 03/07/23 03/07/23 03/07/23		
DIVISION 08 - OPENINGS				
081113 081416	HOLLOW METAL DOORS AND FRAMES FLUSH WOOD DOORS	03/07/23 03/07/23		
DIVISION 09 - FINISHES				
092216 092900 095113 096513 096519 096813 099123	NON-STRUCTURAL METAL FRAMING GYPSUM BOARD ACOUSTICAL PANEL CEILINGS RESILIENT BASE AND ACCESSORIES RESILIENT TILE FLOORING TILE CARPETING INTERIOR PAINTING	03/07/23 03/07/23 03/07/23 03/07/23 03/07/23 03/07/23		

SECTION 01040 - PROJECT COORDINATION

PART 1 - GENERAL

1.01 DESCRIPTION

Minimum administration and supervisory requirements necessary for coordination of work on the Project include but are not necessarily limited to the following:

- A. Preconstruction Conference.
- B. Coordination and Progress Meetings.
- C. Preinstallation Conferences.
- D. Preconstruction and Progress Photographs.
- E. Reporting and Schedules.
- F. Special Reports.
- G. Service Interruption Requests.
- H. Drawing Log.

1.02 COVENANT OF GOOD FAITH AND FAIR DEALING

- A. This Contract imposes an obligation of good faith and fair dealing in its performance and enforcement.
- B. The General Contractor and the Owner, with a positive commitment to honesty and integrity, agree to the following mutual duties:
 - 1. Each will function within the laws and statutes applicable to their duties and responsibilities.
 - 2. Each will assist in the other's performance.
 - 3. Each will avoid hindering the other's performance.
 - 4. Each will proceed to fulfill its obligations diligently.
 - 5. Each will cooperate in the common endeavor of the Contract.

1.03 PRECONSTRUCTION CONFERENCE

A. Before beginning work at the Project site, the General Contractor will attend a preconstruction conference and bring the Project Management Team, including but not limited to, the Project Manager and Superintendent employed for this Project. In the event the Project Manager or Superintendent is unable to attend, the General Contractor will bring a Letter of Introduction in which General Contractor advises the full names and duties of the Project Manager and Superintendent and states that they are assigned to the Project and will be in full responsible charge. This conference will be requested by the General Contractor and called by the Owner who will arrange for other interested parties to be present.

B. The General Contractor will also notify its major subcontractors and suppliers of this meeting if their attendance is required. At this time, all parties will discuss the Project under Contract and prepare a program of procedure in keeping with requirements of the Contract Documents. The General Contractor Project Management Team will make every effort to expeditiously coordinate all phases of the Work, including the required reporting procedure, to obtain the end result within the full purpose and intent of the Contract Documents for this Project.

1.04 COORDINATION AND PROGRESS MEETINGS

The General Contractor will:

- A. Prepare a written memorandum on required coordination activities. Included will be such items as required notices, reports, and attendance at meetings. This memorandum will be distributed to each entity performing construction at the Project site.
- B. In addition to specific coordination and preinstallation meetings for each element of Work, and other regular project meetings for other purposes, hold general progress meeting each week with time coordinated with preparation of payment request. Require each party then involved in planning, coordination, or performance of Work to be properly represented at each meeting. Review present and future needs including interface requirements, time, sequences, deliveries, access, site utilization, temporary facilities and services, hours of work, hazards and risks, housekeeping, change orders, and documentation of information for payment requests.
- C. Discuss whether each element of current Work is ahead of schedule, on time, or behind schedule in relation with updated progress schedule. Determine how behind schedule Work will be expedited and secure commitments from parties involved. Discuss whether schedule revisions are required to ensure that current Work and subsequent Work will be completed within Contract Time.
- D. Review everything of significance which could affect progress of Work.
- E. Prepare written minutes of the meeting and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting in format required by Owner.

1.05 PREINSTALLATION CONFERENCES

The General Contractor:

- A. Well in advance of installation of every major unit of Work which requires coordination and interfacing with other Work, meet at Project site with installers and representatives of manufacturers and fabricators who are involved in or affected by unit of Work, and in coordination or integration with other Work which has preceded or will follow. Preinstallation and coordination meetings shall also occur prior to a new trade or new scope of work starting. These meetings are also intended to review the approved submittals, means and methods, testing requirements, mock-up requirements, egress, and other relevant items.
- B. The General Contractor shall have a preinstallation and coordination meeting prior to starting work in a new area that could potentially impact the owner. Prior to transitioning to a new area of work, a preinstallation and coordination meeting shall occur to discuss impacts, schedule, potential utility interruptions, and other relevant items.

- C. The Owner shall be invited to all preinstallation and coordination meetings. At the Owner's discretion, they may invite other parties that could include other contractors, engineers, department heads, or any other personnel that they deem necessary. These meetings should occur well in advance of any mobilization so as to allow the Owner to communicate to other team members and review the contract documents prior to the meetings. An agenda shall be distributed by the General Contractor no later than 48 hours in advance.
- D. At each conference review progress of other Work and preparations for particular Work under consideration, including requirements of Contract Documents, options, related change orders, purchases, deliveries, shop drawings, product data, quality control samples, possible conflicts, compatibility problems, time schedules, weather limitations, temporary facilities, space and access limitations, structural limitations, governing regulations, safety, inspection and testing requirements, required performance results, recording requirements, and protection.
- E. Record significant discussions of each conference. Record agreements and disagreements. Record final plan of action. Distribute written minutes of conference promptly to everyone concerned, including Owner and others in attendance in format required by Owner.

1.06 PRECONSTRUCTION AND PROGRESS PHOTOGRAPHS

The General Contractor will provide:

- A. Preconstruction and progress photographs as required by the Contract and Owner. General Contractor will promptly forward copies in format required by the Owner to the Owner.
- B. Photographs and/or video(s) will be labeled per the Owner's naming conventions with the item and date and properly identified and categorized with the name of the person taking the photographs and/or videos.

1.07 REPORTING AND SCHEDULES

- A. Within 3 business days after each conference/meeting date, distribute copies of minutesof-the-meeting in format required by the Owner to each entity present and to others who should have been present.
- B. Include brief summary, in narrative form, of progress of Work since previous conference/meeting and report.
- C. Schedule Updating:
 - 1. Immediately following each conference/meeting, where revisions to Progress Schedule have been made or recognized, revise Progress Schedule.
 - 2. Reissue revised Project Schedule concurrently with report of each conference/meeting where appropriate but no later than five days after the conference/meeting.

1.08 SPECIAL REPORTS

- A. Reporting Unusual Events: When an event of an unusual and significant nature, such as an accident, injury, or criminal activity, occurs at the Project site, the General Contractor will prepare and submit a special report to the Owner. The special report will list chain of events, persons participating, response by the General Contractor's personnel, an evaluation of the results or effects and similar pertinent information. The General Contractor will advise the Owner as soon as possible when such events are known. Time is of the essence.
- B. The General Contractor will submit special reports directly to the Owner no later than one day of occurrence. The Design-Builder will also submit a copy of the special reports to other entities that are affected by the occurrence no later than one day of the occurrence.

1.09 COORDINATION DURING CONSTRUCTION

The General Contractor will:

- A. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of their components, before or after its own installation.
 - 2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
 - 3. Make provisions to accommodate items scheduled for later installation.
- B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at conference/meeting.
 - 1. Prepare similar memoranda for the Owner and separate contractors where coordination of their work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of schedules.
 - 2. Preparation of detailed phasing plan
 - 3. Installation and removal of temporary facilities.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Project closeout activities.
- D. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials and Owner's Sustainability Master Plan.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work.

1.10 GENERAL COORDINATION PROVISIONS

The General Contractor:

- A. Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed and not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.

1.11 STAFF NAMES

The Design-Builder will:

A. After the Preconstruction conference, submit a list of the General Contractor principal staff assignments, including the superintendent and other personnel in attendance at the Project Site. Identify individuals and their duties and responsibilities. List their telephone numbers and email addresses. The Design-Builder will update the list as required. The list will be entered into the Owner's software management system. The Design-Builder will coordinate with the Owner's Document Control Manager to ensure that this information is up to date on a quarterly basis by providing this list and indicating all changes to the list each time.

END OF SECTION

SECTION 01095 - DEFINITIONS AND STANDARDS

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

A. General:

- This section specifies procedural and administrative requirements for compliance with governing regulations and the codes and standards imposed upon the Work. These requirements include the obtaining of permits, licenses, inspections, releases and similar requirements associated with regulations, codes and standards.
- Regulations are defined to include laws, statutes, ordinances, and lawful orders issued by governing authorities, as well as those rules, codes, 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.
- 3. Codes, standards and requirements of the Owner are identified within the Contract Documents. The General Contractor shall examine, determine and identify other codes, standards and requirements that may be applicable to the General Contractor's Work, such that the intent of the Contract is fully realized.

B. Governing Regulations:

Refer to this Part 2 Contract as modified, for requirements related to compliance with governing regulations.

1.02 DEFINITIONS

A. General Requirements:

The provisions or requirements of Division 01 sections apply to the entire Work of this Contract and supplement the requirements in the Contract Documents.

A substantial amount of specification language consists of definitions of terms found in the Contract Documents. Certain terms used in Contract Documents are defined in this section. Definitions and explanation contained in this section are not necessarily either complete or exclusive, but are general for the Work to the extent they are not stated more explicitly in another element of the Contract Documents.

- B. Whenever the following terms are used in the Contract Documents or any other documents or instruments pertaining to the construction of this Project, the intent and meaning will be interpreted as follows:
 - 6. APPROVE. Where used in conjunction with Owner's response to submittals, requests, applications, inquiries, reports and claims by the Contractor, the meaning of the term "approved" will be held solely to limitations of Owner's responsibilities and duties as specified in the Contract Documents. In no case will "approved" or any other form of approval by Owner be interpreted as a release of General Contractor from responsibilities to fulfill requirements of the Contract Documents.
 - 8. AWARD. The acceptance by the Owner of the successful Bidder's Bid.
 - 10. BID. The written offer of the Bidder to perform the Work and furnish the necessary materials and labor in accordance with the provisions of the Contract Documents.
 - 11. BID BOND. The security furnished with a Bid to guaranty that the Bidder will enter into a Contract if Bidder's Bid is accepted by the Owner.

- 12. BIDDER. Any individual, partnership, firm or corporation, acting directly or through a duly authorized representative, who submits a Bid for the Work contemplated.
- 13. BUILDING AREA. An area on the airport to be used, considered, or intended to be used for airport buildings or other airport facilities or rights-of-way, together with all airport buildings and facilities located thereon.
- 14. DAY. As used in the Contract Documents will mean calendar day unless otherwise specifically defined.
- 15. CONSTRUCTION SCHEDULE. The General Contractor-prepared schedule as adjusted from time to time in accordance with the Contract Documents showing planned and actual progress by items of the Work.
- 16. CONTRACT DOCUMENTS. The Contract Documents consist of the executed Contract between the Owner and General Contractor, the General Contractor's GMP Proposal as accepted by the Owner, Bonds, Insurance Requirements, other applicable attachments, the Division 1 Specifications, Drawings, E-Verify Certification and any Contract Modifications issued after execution of the Contract.
- 17. DIRECTED, REQUESTED, ETC. Where not otherwise explained, terms such as "directed", "requested", "authorized", "selected", "accepted", and "permitted" mean "directed by General Contractor's licensed design professional", "requested by the Owner or General Contractor's licensed design professional", and similar phrases. However, no such implied meaning will be interpreted to extend Owner's or General Contractor's licensed design professional's responsibility into the General Contractor's area of General Contractor, including but not limited to construction supervision.
- 18. DRAWINGS. The official Drawings or exact reproductions which show the location, character, dimensions and details of the airport and the Work to be done.
- 20. EQUIPMENT. The articles, devices, software, control system, and other assets used to serve a function in the operation of the Project. Also, used to refer to all machinery, together with the necessary supplies for upkeep and maintenance, as well as all tools and apparatus, necessary for the proper construction and acceptable completion of Work.
- 21. EXPERIENCED. The term "experienced" when used with the term "Installer" means having previous projects similar in size and scope to the installation to be performed, being familiar with the procedures required, and having complied with requirements of the authority having jurisdiction.
- 22. EXTRA WORK. An item of Work not provided for in the awarded Contract as previously modified by work order or change order but which is found by the Owner to be necessary to complete the Work within the intended scope of the Contract as previously modified.
- 27. FURNISH. Except as otherwise defined in greater detail, the term "furnish" is used to mean supply and delivery to Project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance for incorporation and installation into the Work.
- 28. INDICATED. The term "indicated" is a cross-reference to graphic representations, notes, or schedules on 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.
- 29. INSPECTOR. An authorized representative of the Owner assigned to make all necessary inspections and/or tests of the Work performed or being performed, or of the materials furnished or being furnished by the General Contractor.
- 30. INSTALL. Except as otherwise defined in greater detail, the term "install" is used to describe operations at the Work site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations, as applicable in each instance, to incorporate the element being installed into the Work.

- 31. INSTALLER. The term "installer" is the entity (person or firm) engaged by the General Contractor, its Subcontractor or Sub-subcontractor for performance of a particular unit of Work at the Project site, including installation, erection, application, and similar required operations. It is a general requirement that such entities (installers) be expert in the operations they are engaged to perform.
- 32. INTENTION OF TERMS. Whenever, in the Contract Documents, the words "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of like import are used, it will be understood that the direction, requirement, permission, order, designation, or prescription of the General Contractor's licensed design professional is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import will mean approved by, acceptable to, or satisfactory to the General Contractor's licensed design professional.
 - a. Any reference to a specific requirement of a numbered paragraph of the Contract Document or a cited standard will be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.
- 33. LABORATORY. The official testing laboratories of the General Contractor or Owner or such other laboratories as may be designated by the Owner.
- 34. LIGHTING. A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.
- 35. MAJOR AND MINOR CONTRACT ITEMS. A major contract item will be any item that is listed in the Bid, the total cost of which is equal to or greater than 20% of the total amount of the awarded Contract. All other items will be considered minor contract items.
- 36. MATERIALS. Any substance to be used in the Work.
- 37. NO EXCEPTIONS TAKEN. The term "No Exceptions Taken" where used in conjunction with the General Contractor's licensed design professional's action on the General Contractor's submittals, applications, and requests, is limited to the General Contractor's licensed design professional's duties and responsibilities as stated in this Part 2 Contract as modified.
 - a. Refer to Section 01340 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES for more specific information.
- 38. NOT APPROVED. Where used in conjunction with the General Contractor's licensed design professional's response to submittals, requests, applications, inquires, reports, and claims by the General Contractor, indicates that the item or material is unsatisfactory, and must be revised, new material prepared in accordance with notations, and the item or material resubmitted. Material marked in this manner will not be released for any Work.
- 39. NOTE MARKINGS. Where used in conjunction with the Owner's response to submittals, requests, applications, inquires, reports, and claims by the General Contractor, "Note Markings" indicates that the item or material submitted is approved subject to corrections noted. Correction and re-submittal of the item is not required unless specifically called for in the notations. Approval of General Contractor's submitted item does not constitute approval of the design. Approval does not permit any deviation from the General Contractor's requirements and does not relieve the General Contractor of the responsibility for errors or deficiencies in design, dimension, details, or for coordinating installation and/or construction with actual conditions at the Project site.

- 40. NOTICE TO PROCEED (NTP). A written notice to the General Contractor to begin the actual Contract Work. If applicable, the NTP will state the date on which the Contract Time begins.
- 41. OWNER (SPONSOR). The term Owner or Sponsor will mean the party of the first part or the contracting agency signatory to the Contract. The Hillsborough County Aviation Authority is the Owner, and will include its agents, employees, representatives and contractors when acting at its direction or on its behalf. The Hillsborough County Aviation Authority is also referred to as the "Owner" in these Contract Documents. For AIP Contracts, the term Sponsor will have the same meaning as the term Owner.
- 42. PAVEMENT. The combined surface course, base course, and sub-base course, if any, considered as a single unit.
- 43. PAYMENT BOND. The approved form of security furnished by the General Contractor and General Contractor's surety as a guaranty that the General Contractor will pay in full all bills and accounts for material and labor used in the construction of the Work under the contract.
- 44. PERFORMANCE BOND. The approved form of security furnished by the General Contractor and General Contractor's surety as a guaranty that the General Contractor will complete the Work in accordance with the terms of the Contract and will complete the guarantee of the Work specified therein.
- 45. PROJECT. The Work defined in the Contract Documents.
- 46. PROJECT SITE. The term "Project Site" is defined as the space available to the General Contractor for performance of the Work, either exclusively or in conjunction with others performing other Work, as part of the Project. The extent of the Project Site may or may not be identical with the description of the land upon which the Project is to be built but it is within or near Tampa International Airport.
- 47. PROVIDE. Except as otherwise defined in greater detail, the term "provide" means furnish and install, complete, and ready for intended use, as applicable in each instance.
- 48. RETENTION. Retention (or Retainage) is the amount of compensation for Work accomplished by the General Contractor which is retained by the Owner to be paid to the General Contractor as specified herein.
- 49. RUNWAY. The area on the airport prepared for the landing and takeoff of aircraft.
- 50. SHOP DRAWINGS. All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the General Contractor, a subcontractor, manufacturer, supplier or distributor and which illustrate the equipment, material or some portion of the Work.
- 51. SHUTTLE. A guided transit mode with fully automated operation, featuring vehicles that operate on guideways between the Main Terminal and Airsides
- 52. SPECIFICATIONS. A part of the Contract Documents containing the written directions and requirements for completing the Contract Work. Standards for specifying materials or testing which are cited in the Contract Specifications by reference will have the same force and effect as if included in the Contract physically.
- 53. SPONSOR. See "Owner".
- 54. STRUCTURES. Airport facilities such as buildings, aprons, bridges, culverts, catch basins, inlets, retaining walls, cribbing, storm and sanitary sewer lines, waterlines, underdrains, electrical ducts, manholes, handholes, lighting fixtures and bases, transformers, flexible and rigid pavements, navigational aids, buildings, vaults, and other manmade features of the airport that may be encountered in the Work and not otherwise classified herein.
- 55. SUBGRADE. The soil which forms the pavement foundation.
- 56. SUPERINTENDENT. The General Contractor's executive representative who is present on the Work during progress, authorized to receive and fulfill instructions from the Owner, and who will supervise and direct the construction.

- 57. SUPPLEMENTAL CONTRACT. A written agreement between the General Contractor and the Owner covering (1) Work that would increase or decrease the total amount of the awarded Contract, or any major Contract item, by more than 25%, such increased or decreased work being within the scope of the originally awarded Contract; or (2) Work that is not within the scope of the originally awarded Contract.
- 58. SURETY. The corporation, partnership, or individual, other than the General Contractor, executing Payment and Performance Bonds which are furnished to the Owner by the General Contractor.
- 59. TAXIWAY. The portion of the AOA of an airport that has been designated by the airport authority for movement of aircraft to and from the airport's runways or aircraft parking areas.
- 60. TESTING LABORATORIES. An independent entity engaged to perform specific inspections or tests of the Work, either at the Project site or elsewhere, and to report and (if required) interpret results of those inspections or tests.
- 61. TRADES. Use of titles such as "carpentry" is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
- 62. UNIT PRICE. Cost per unit of Work.
- 63. WORK. The construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the General Contractor to fulfill the General Contractor's obligations. The Work may constitute the whole or a part of the Project.

1.03 SPECIFICATION FORMAT AND CONTENT EXPLANATION

A. General:

 This article is provided to help the user of the Specifications to more readily understand the format, language, implied requirements and similar conventions of content. None of the following explanations will be interpreted to modify the substance of the Contract requirements.

B. Specification Content:

- This Project Specifications and the Contract Documents have been produced employing certain conventions in the use of language as well as conventions regarding the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:
 - a. In certain circumstances, the language of the Specifications and other Contract Documents is of the abbreviated type. It implies words and meanings that will be interpreted as plural. Plural words will be interpreted as singular where applicable and where the full context of the Contract Documents so indicates.
 - b. Imperative Language is used generally in the Specifications. Requirements expressed imperatively are to be performed by the General Contractor. At certain locations in the text, for clarity, contrasting subjective language is used to describe responsibilities which must be fulfilled indirectly by the General Contractor or by others when so noted.

1.04 INDUSTRY STANDARDS

A. Applicability of Standards:

Except where more explicit or stringent requirements are written into the Contract Documents, applicable 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. General Contractor shall keep available copies of all applicable codes and standards at locations where Work is being performed, including the Project Site.

B. 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.

C. Conflicting Requirements:

Where compliance with two or more standards is specified, and where these standards establish different or conflicting requirements, the General Contractor shall call the conflict to the Owner's attention and the most stringent requirement will be enforced as determined by the Owner.

D. 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 industry standards are not bound with the Contract Documents.
 - a. Where copies of industry standards are needed for proper performance of the Work, the General Contractor is required to obtain such copies directly from the publication source.
 - b. Although certain copies of industry standards needed for enforcement of the requirements may be required submittals, the Owner reserves the right to require the General Contractor to submit additional copies of these standards as necessary for enforcement of requirements.

E. 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.

F. The General Contractor will comply with applicable standards for work promulgated by organizations, associations, institutes, societies, boards and generally recognized organizations including but not limited to:

Acoustical Materials Association	AMA
Air Conditioning & Refrigeration Institute	ARI
Air Moving & Conditioning Association	AMCA
Aluminum Association	AA
American Association of State Highway and Transportation Officials	AASHTO
American Concrete Institute	ACI

American Gas Association	AGA
American Institute of Steel Construction	AISC
American National Standards Institute	ANSI
American Petroleum Institute	API
	APA
American Plywood Association	
American Society for Testing and Materials	ASTM ASHRAE
American Water Works Association	AWWA
American Welding Society	AWS
American Wood Preservers Bureau.	AWPB
Architectural Precast Association.	APA
Architectural Woodworking Institute	AWI
Cast Iron Pipe Research Association	CIPRA
Concrete Reinforcing Steel Institute	CRSI
Contracting Plasterers and Lathers International Association	CPLIA
Factory Mutual Engineering Corporation	FM FED.
Federal Specifications	SPEC.
Flat Glass Jobbers Association	FGJA
Gypsum Association	GA
Industrial Power Cable Engineers Association	IPCEA
Institute of Boiler & Refrigeration	IBR
Institute of Electrical & Electronic Engineers	IEEE
Joint Industry Council	JIC
Metal Lath Manufacturers Association	MLMA
Metal Lath/Steel Framing Association	ML/SFA
· ·	MIL.
Military Specifications	SPEC.
National Association of Architectural Metal	NAAM
National Bureau for Lathing and Plastering	NBLP
National Concrete Masonry Association	NCMA
National Electric Code	NEC
National Electrical Manufacturers Association	NEMA
National Fire Protection Association	NFPA
National Lumber Manufacturers Association	NLMA
National Roofing Contractors Association	NRCA
National Terrazzo & Mosaic Association	NTMA
National Woodwork Manufacturers Association	NWMA
Portland Cement Association	PCA
Post-Tensioning Institute	PTI
Precast Concrete Institute	PCI
Product Standards	PS
Research Council on Riveted and Bolted Structural	DCDDC I
Joints	RCRBSJ

Rubber Manufacturer's Association		
Sealing and Waterproofers Institute		
Sheet Metal & Air Conditioning Contractors National Assoc		
Southern Pine Inspection Bureau	SPIB	
Steel Boiler Institute	SBI	
Steel Door Institute	SDI	
Steel Joist Institute	SJI	
Steel Structures Painting Council	SSPC	
Stucco Manufacturer's Association	SMA	
Tile Council of America	TCA	
Tubular Exchange Manufacturers Association	TEMA	
Underwriter's Laboratories	UL	
Standards	CS	
United States Department of Commerce – Products Standards	PS	
United States Gypsum Company		
United States Postal Service	USPS	
Vermiculite Institute	VI	
Warnock Hersey		
West Coast Lumber Inspection Bureau		

- G. Where more than one quality or requirement is set forth in such standards and reference is not made in these Specifications to which specific quality or requirement is intended, the more stringent will be bid upon and furnished. Where under such standards options occur, the General Contractor's licensed design professional will be called upon to designate which applies.
- H. No provisions of any referenced standard, specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) will be effective to change the duties and responsibilities of the Owner, General Contractor or any of their consultants, agents or employees, from those set forth in the Contract Documents, nor will it be effective to assign to the Owner any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of the Contract Documents.

1.05 CODES/MANUFACTURER'S RECOMMENDATIONS

- A. Applicable code requirements are included herein by this reference. However, such are minimum criteria and no reduction from Drawings or Specifications will be permitted, even if allowed by applicable code.
- B. Electrical and mechanical apparatus, fixtures and equipment will bear approved device label of Underwriter's Laboratories.
- C. The local building code and the Florida Building Code (Latest Edition) apply to all Work. In the event a conflict occurs between the local and Florida Building Codes, the greater requirements will govern. The General Contractor shall call to the attention of the Owner any conflict which may arise due to revisions to codes and regulations subsequent to the Contract Date.
- D. Specifically, comply with following codes and regulations:

- 1. Florida Building Code, Latest Edition.
- 2. Florida Plumbing Code, Latest Edition.
- 3. Florida Mechanical Code, Latest Edition.
- 4. Florida Fire/Gas Code, Latest Edition.
- 5. Local Building Code.
- 6. Local Public Utility regulations.
- 7. City of Tampa Water Department "Developer-Install" Manual.
- 8. City of Tampa Department of Sanitary Sewer Developer Review Package.
- 9. National Standard Plumbing Code.
- 10. National Electric Code (NEC).
- 11. ASME Code for unfired pressure vessels.
- 12. Building exits code (life safety code), NFPA 101.
- 13. Standards of National Board of Fire Underwriters.
- 14. ASHRAE Safety Code for Mechanical Refrigeration.
- 15. National Fire Codes.
- 16. National Fire Protection Association.
- 17. Occupational Safety and Health Administration (OSHA).
- 18. International Council of Building officials.
- 19. Housing and Urban Development.
- 20. Council of American Building Officials.
- 21. ANSI A17.1-1987 Safety Code for Elevators and Escalators.
- 22. American National Standards Institute (ANSI).
- 23. Florida Department of Environmental Regulation.
- 24. United States Environmental Protection Agency.
- 25. Americans with Disabilities Act (ADA).
- Hillsborough County Environmental Protection Commission.
- 27. Florida Department of Transportation (FDOT).
- 28. Federal Aviation Administration (FAA)(Including, but not limited to applicable Advisory Circulars.) applicable Advisory Circulars.)
- E. Comply with recommendations of pertinent manufacturer to achieve first quality work.

1.06 ABBREVIATED SPECIFICATIONS

- A. In order to shorten these Specifications, certain terminology and form common in specification writing is employed. The following words are often omitted when meaning remains clear without the same, i.e., "the," "the General Contractor will," "of," "a," "will comply with," etc.
- B. Uses of a period or colon after a general mention of a material lists means "will be," or "will comply with." Example:

"Portland Cement: ASTM C 150, Type 1."

PART 2 - PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01330 - DESIGN SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION:

Scope includes design submittals required for proper execution of the Work as described herein. These requirements supplement the other requirements in the Contract Documents. In cases of conflict, the more stringent requirement shall govern as determined by the Owner.

1.02 SUMMARY:

- A. This Section specifies procedural requirements for submittal of Design Documents to verify that the design intent complies with provisions of the Contract Documents. The section contains detailed information required to be included in each design progress submittal made by the General Contractor. All submittals shall conform to Owner's Design Standards. The General Contractor shall submit Design Review Documents at Preliminary, In-Progress and Final Design Level for review by the Owner, in accordance with the schedule of submittals required by the Contract Documents. General Contractor shall also submit 100% completed set of documents in conformance with the Contract Documents.
- B. The data required for the Final Design Submittal Level is:
 - Original contract drawings and specifications.
 - 2. Final schedule.
 - 3. Long lead list if applicable.
 - 4. Actions and minutes from Pre-Final Review.
 - Calculations.
 - 6. Standard drawings.
- G. Monthly As-Builts. General Contractor will maintain an up-to-date electronic set of contract documents including drawings and specifications that are updated with ASIs, ESIs, RFIs, and other revisions. General Contractor will provide adequate staffing to provide this function. All sets will be merged for a complete updated set each month.
- H. Record Documents. At project closeout, General Contractor will submit Record Documents to Owner reflecting as-built conditions of the project in accordance with Section 01700 PROJECT CLOSEOUT.

1.03 SUBMITTAL PROCEDURES:

A. Submittal Copy Requirements. The General Contractor shall provide documents for review for each required submittal as indicated below unless otherwise directed by the Owner. The documents shall be in sets, indexed, and clearly marked to indicate the date of issue and the stage of development.

All drawing review submittals shall be in electronic format (i.e. pdf files (in searchable format) and CAD files in a format that allows them to be incorporated into the BIM Model) and submitted through the Owner's Management Software. Supportive documentation shall be presented with standard format including, but not limited to, the following requirements for printed materials for each submittal with quantities per the Owner's request:

- 1. Drawings:
 - a. One set, if requested by Owner of full-size black and white prints.
 - b. One set, if requested by Owner of half-size black and white prints.

- One set of electronic format documents submitted through the Owner's Management Software. (for each submittal).
- d. Drawing index file, including font files and list of external reference files. External reference files shall not be bounded to drawing files. A layer matrix for each file will be submitted with each level of design documents.

2. Calculations:

- a. One set, if reuested by Owner of bound full-size paper copies.
- b. Up to one set of full-size reproducibles.
- c. Calculations in electronic format with professional label and submitted through the Owner's Management Software.

Specifications:

- a. One set, if requested by Owner of bound full-size copies.
- b. Up to one set of full-size reproducibles.
- c. Specifications in electronic format with professional label and submitted through the Owner's Management Software.
- 4. Owner Design Standard Drawings. General Contractor will list only that list including the revision designation. Final package shall include actual drawings (reproducibles) supplied to the General Contractor for addition of contract numbers, sheet number, etc. (standard only).
- 5. Cost and Schedule. Same as for calculations.
- 6. Actions and Minutes for Previous Design Review.
- B. Requirements for the Preparation of Design Submittals. All design submittals between the General Contractor and the owner or its agents must follow adhere to the Owner's format and design standards.

1.04 OWNER'S ACTION:

- A. Upon receipt of a design submittal, the Owner will review the submittal for content and format. Failure to provide a complete submittal or variations from the Owner's design standards will be cause for its rejection and return to the General Contractor.
- B. The Owner will distribute the submittal in accordance with the deliverables matrix developed for each project. A copy of the design review comments form will be distributed with the design documents. The Owner will determine the date design review comments are to be returned.
- C. Design documents will be reviewed by the Owner within the time periods set forth in the Contract Documents or three weeks whichever is longer, for conformance to the requirements and intent of the Contract Documents. Comments resulting from the review will be collected by the Owner and transmitted to the General Contractor. After the General Contractor's review and responses are provided on the technical review form and delivered to the Owner, the Owner will coordinate a technical review meeting, with select Owner's agents, at which the General Contractor will present the proposed corrective action for each review comment. General Contractor's questions will also be addressed at this meeting. The agreed upon review comment actions will be incorporated on the project documents prior to the next design submittal. The General Contractor will take and publish minutes for these meetings through the Owner's Management Software. A technical review meeting will be conducted at each stage of the design.

PART 2 - PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 01340 - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Requirements of the Contract Documents, including Division 01. The General Contractor will be required to follow the Submittal Management Process for the development of a Submittal Register Log and submission of Submittal Packet.

1.2 SUMMARY:

This Section specifies administrative and procedural requirements for submittal of Shop Drawings, Product Data and Samples to verify that products, materials and systems proposed for use comply with provisions of the Contract Documents.

- A. Shop Drawings may include, but are not limited to, the following:
 - 1. Fabrication Drawings.
 - 2. Installation Drawings.
 - 3. Setting diagrams.
 - 4. Shop-work manufacturing instructions.
 - 5. Templates and patterns.
 - 6. Schedules.
 - 7. Design mix formulas.
 - 8. Coordination Drawings.
- B. Product Data may include, but are not limited to, the following:
 - 1. Manufacturer's product specifications.
 - 2. Manufacturer's installation instructions.
 - 3. Standard color charts.
 - 4. Catalog cuts.
 - 5. Roughing-in diagrams and templates.
 - 6. Standard wiring diagrams.
 - 7. Printed performance curves.
 - 8. Operational range diagrams.
 - 9. Mill reports.
 - 10. Standard product operating and maintenance manuals.
 - 11. Material Safety Data Sheets (MSDS).
- C. Samples may include, but are not limited to, the following:
 - 1. Partial Sections of manufactured or fabricated components.
 - 2. Small cuts or containers of materials.
 - 3. Complete units of repetitively-used materials.
 - 4. Swatches showing color, texture and pattern.
 - 5. Color range sets.
 - 6. Components used for independent inspection and testing.
- D. Administrative Submittals: Refer to other Division 01 Sections and other Contract Documents for requirements for administrative submittals. Such submittals may include, but are not limited to:
 - 1. Schedule of Submittals.
 - 2. Permits.
 - 3. Applications for payment.

- 4. Performance and payment bonds.
- 5. Insurance certificates and endorsements.
- 6. Listing of subcontractors, subcontracts and purchase orders.
- 7. General Contractor's construction schedule.
- 8. Progress Schedules.
- 9. Progress reports.

1.3 SUBMITTAL PROCEDURES:

- A. Coordination: Coordinate preparation and processing of submittals with performance of the Work.
 - At the beginning of the Work, the General Contractor will prepare and submit a Submittal Register based on all of the submittal requirements in the specifications. Each item called out shall have an individual record (line) in the Submittal Register and this will be submitted for Owner approval and comment. The Owner will indicate on the Submittal Register those submittals that will be reviewed by the Owner.
 - The General Contractor shall review submittals before submitting to the Owner. Transmit each submittal to the Owner sufficiently in advance of scheduled performance of related construction activities to avoid delay. If any submittals will be delayed, inform the Owner in writing giving reasons for the delay and a revised submittal schedule. Delays will be subject to Owner's approval. No extension of time will be authorized because of a General Contractor's failure to transmit submittals to the Owner sufficiently in advance of the Work to permit processing
 - 3. The Owner will review –submittals for general conformance with the Contract Documents. The review of the submittals by the Owner will not constitute any release or discharge of General Contractor's sole liability and responsibility for all such submittals.
 - 4. Request for payment of stored materials will not be considered until submittals have been received and approved by the Owner.
 - 5. Transmit submittals to the Owner to prevent delays. The General Contractor is responsible for delays accruing directly or indirectly from submission or resubmission of submittal date.
 - 6. The General Contractor shall coordinate each submittal with other submittals and related activities that require sequential activity including:
 - a. Testing.
 - b. Purchasing.
 - c. Fabrication.
 - d. Delivery.
 - 7. The General Contractor shall coordinate transmittal of different types of submittals for the same element of the Work and different elements of related parts of the Work so that processing will not be delayed by the Owner's need to review submittals concurrently for coordination.
 - a. The Owner reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are delivered to the Owner.

- 8. Processing: The General Contractor shall allow sufficient review time so that Work will not be delayed as a result of the time required to process submittals, including time for re-submittals.
 - a. The General Contractor shall allow for time for the Owner's initial review of each submittal. The standard time for Owner review will be 21 calendar days unless a different duration has been agreed to by Owner and General Contractor. Where processing must be delayed to permit coordination with subsequent submittals, additional time is allowed. The Owner will advise the General Contractor promptly when a submittal being processed must be delayed for coordination.
 - b. The General Contractor shall where necessary to provide an intermediate submittal between the initial and final submittals, process the intermediate submittal in the same manner as the initial submittal.
 - c. The General Contractor shall allow time for reprocessing of each submittal to meet the schedule.
 - d. No extension of time will be authorized because of a General Contractor's failure to transmit submittals to the Owner sufficiently in advance of the Work to permit processing.
- B. All submittals shall be submitted electronically through the Owner's Management Software and use the Packages to pull register items in for review. Close-out submittals, including O&M Manuals shall be submitted through the Close-out Register for review and tracking purposes.
 - The General Contractor shall place a permanent label or title block on each submittal for information.
 - 2. The General Contractor shall indicate the name of the firm or entity that prepared each submittal on the label or title block.
 - 3. The General Contractor shall provide a space approximately 4 inches by 5 inches on the label or adjacent to the title block to record the General Contractor's review and approval markings and the action taken by the Owner.
 - 4. The General Contractor shall include the following information on the label for processing and recording action taken.
 - a. Project name.
 - b. Project Number.
 - c. Date.
 - d. Name and address of Owner.
 - e. Name and address of General Contractor's Designer.
 - f. Name and address of General Contractor.
 - g. Name and address of subcontractor.
 - h. Name and address of supplier.
 - Name of manufacturer.
 - j. Number and title of appropriate Specification Section.
 - k. Drawing number and detail references, as appropriate.
 - I. Similar definitive information as necessary.
 - 5. The General Contractor shall stamp each page (sheet) of the submittal with the General Contractor's certification statement, or other approval statement, as follows:

"I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is that proposed to be incorporated in the work, is in compliance with the Contract Documents, can be installed in the allocated spaces, and is submitted for review by the Owner.

Certified by Submittal Reviewer	r .	Date:

- C. Submittal Transmittal: The General Contractor shall package each submittal appropriately for electronic transmittal and handling. The General Contractor shall transmit each submittal from General Contractor to Owner, as indicated, by use of Submittals received from sources other than the General Contractor will be returned to the sender without action. Submittal descriptions shall follow the Owner's naming conventions.
 - 1. The General Contractor shall record relevant information and requests for data on the transmittal form. On the form, or an attached separate sheet, the General Contractor shall call attention to deviations from requirements of the Contract Documents, including minor variations and limitations.
 - 2. The General Contractor shall include the General Contractor's signed certification stating that information submitted complies with requirements of the Contract Documents.

1.4 SPECIFIC SUBMITTAL REQUIREMENTS:

- A. Shop Drawings: The General Contractor shall submit newly prepared information, drawn to accurate scale. THE GENERAL CONTRACTOR SHALL NOT REPRODUCE CONTRACT DOCUMENTS OR COPY STANDARD PRINTED INFORMATION AS THE BASIS OF SHOP DRAWINGS.
 - 1. The General Contractor shall include the following information on Shop Drawings:
 - a. Dimensions.
 - b. Identification of products and materials included.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - 2. The General Contractor shall submit Coordination Drawings where required for integration of different construction elements. The General Contractor shall show construction sequences and relationships of separate components where necessary to avoid conflicts in utilization of the space available.
 - 3. THE GENERAL CONTRACTOR SHALL ENCIRCLE, IDENTIFY WITH ARROW, OR OTHERWISE INDICATE DEVIATIONS FROM THE CONTRACT DOCUMENTS ON THE SHOP DRAWINGS.
 - THE GENERAL CONTRACTOR SHALL NOT USE COLORED HIGHLIGHTERS TO INDICATE SELECTIONS.
 - 4. The General Contractor shall not allow Shop Drawing copies which do not have an appropriate final stamp or other marking indicating action taken by the Owner to be used for construction.
- B. Product Data: The General Contractor shall collect Product Data into a single submittal for each element of construction or system.
 - 1. The General Contractor shall encircle and identify with an arrow, each copy to show which choices and options are applicable to the Project.
 - a. The General Contractor shall not use colored highlights to indicate selection.

- 2. Where Product Data has included information on several similar products, some of which are not required for use on the Project, or are not included in this submittal, the General Contractor shall mark copies to clearly indicate which information is applicable.
- 3. Where Product Data must be specially prepared for required products, materials or systems, because standard printed data are not suitable for use, the General Contractor shall submit as "Shop Drawings" not "Product Data."
- 4. The General Contractor shall include the following information in Product Data:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with recognized trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
- 5. The General Contractor shall not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
- 6. The General Contractor shall furnish copies of final Product Data submittal to manufacturers, subcontractors, suppliers, fabricators, installers, governing authorities and others as required for performance of the construction activities. The General Contractor shall show distribution on transmittal forms.
 - a. The General Contractor shall not proceed with installation of materials, products and systems until a copy of Product Data applicable to the installation is in the installer's possession.
 - b. The General Contractor shall not permit use of unmarked copies of Product Data in connection with construction.
- C. Samples: The General Contractor shall submit Samples physically identical with the material or product proposed for use; submit full-size, fully fabricated Samples, cured and finished in the manner specified.
 - The General Contractor shall mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. The General Contractor shall prepare Samples to match Designers' Sample where so indicated and include the following information:
 - a. Generic description of the Sample.
 - b. Size limitations.
 - c. Sample source.
 - d. Product name or name of manufacturer.
 - e. Compliance with recognized standards.
 - f. Compliance with governing regulations.
 - g. Availability.
 - h. Delivery time.
 - 2. General Contractor shall submit a Sample log at the beginning of the project to the Owner based on the required samples per the submittals.
 - 3. In-place samples are only allowed with written approval by Owner.
- D. Operating and Maintenance Manuals: Operating and Maintenance Manuals shall be initially submitted for review at the appropriate percent completion stage of Work per requirements under these Sections. These appropriate percent completion stage will be determined by trade. The Manuals will be reviewed and comments returned to the General Contractor. Corrections shall be made before submittal of the Manuals at subsequent completion levels for Owner review and at Project Close-out.

E. In order to facilitate review of product data and shop drawings, they shall be noted, unless otherwise agreed to by Owner, indicating by cross reference the contract drawing sheet number, note, and specification paragraph numbers, where and what item(s) are used for and where item(s) occur in the contract documents.

1.5 OWNER ACTION:

- Except for submittals for the record, for information and similar purposes, where action and Α. return on submittals is required or requested, the Owner will review each submittal, mark with appropriate "action," and where possible return within the time period allotted for Owner review. Where the submittal must be held for coordination, the Owner will so advise the General Contractor without delay.
 - Compliance with specified characteristics is the General Contractor's 1. responsibility, and not considered part of the Owner's review and indication of action taken.
- B. The Owner will stamp each submittal sheet or page to be returned with a uniform, selfexplanatory action stamp appropriately marked and executed to indicate whether the submittal returned is for unrestricted use (no exceptions taken), final-but-restricted use (as marked), must be revised and resubmitted (use not permitted), or without action (as explained on the transmittal form), or other similar type wording.
- C. The Owner's review of submittals is for design conformity and general conformance of the Contract Documents only and does not relieve the General Contractor from responsibility for any deviations from the requirements of the Contract Documents. The Owner's review shall not be construed as a complete check nor shall it relieve the General Contractor from responsibility for errors of any sort in shop drawings or schedules, of from the necessity of furnishing any work required by the Contract Documents which may have been omitted on the shop drawings. The Owner's review of a separate item shall not indicate review of the complete assembly in which it functions.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

3.5 SCHEDULE OF SUBMITTALS DESCRIPTION AND SUBMITTAL REGISTER

- General: The following is a description of each submittal type, specified in other Sections, Α. required for the Contract. General Contractor shall include each submittal description in the Submittal Register included as part of this Section.
 - 1. Product Data means submittals that provide calculations, descriptions or other documentation regarding the work.
 - 2. Manufacturer's Catalog Data (Product Data) means data composed of information sheets, brochures, circulars, specifications and product data, and printed information in sufficient detail and scope to verify compliance with requirements of the Contract Documents.
 - 3. Manufacturer's Standard Color Charts (Product Data) means preprinted illustrations displaying choices of color and finish for a material or product.
 - 4. Shop Drawings means graphic representations illustrating the relationship of various components of the work, schematic diagrams of systems, details of fabrications, layout of particular elements, connections, and other relational aspects of the work.

- 5. Design Data (Shop Drawings) means design calculations, mix designs, analyses, or other data written and pertaining to a part of the work.
- 6. Instructions (Product Data) means preprinted material describing installation of a product, system, or material, including special notices and Material Safety Data Sheets, if any, concerning impedance, hazards, and safety precautions.
- 7. Schedules (Shop Drawings) means a tabular list of data or a tabular listing of locations, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work.
- 8. Statements (Shop Drawings) means documents, required of the General Contractor, or through the General Contractor by way of a supplier, installer, manufacturer, or other lower tier contractor, the purpose of which is to further the quality or orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications, or other verification of quality.
- Reports (Product Data) mean reports of inspection and laboratory tests, including analysis, an interpretation of test results. Each report shall be properly identified. Test methods used and compliance with recognized test standards shall be described.
- 10. Test Reports (Product Data) mean reports signed by an authorized official of a testing laboratory that a material, product, or system identical to the material, product or system to be provided has been tested in accordance with requirements specified by naming the test method and material. The test report must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test. Testing must have been within three years of the date of award of this Contract.
- 11. Factory Test Reports (Shop Drawings) mean written reports which include the findings of a test required to be performed by the General Contractor or an actual portion of the work or prototype prepared for this project before it is shipped to the job site. The report must be signed by an authorized official of a testing laboratory and must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test.
- 12. Field Test Reports (Shop Drawings) mean written reports which includes the findings of a test made at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation. The report must be signed by an authorized official of a testing laboratory or agency and must state the test was performed in accordance with the test requirements; state the test results; and indicate whether the material, product, or system has passed or failed the test.
- 13. Certificates (Shop Drawings) mean statements signed by responsible officials of a manufacturer of a product, system, or material attesting that the product, system, or material meet specified requirements. The statements must be dated after the award of this contract, name the project, and list the specific requirements which it is intended to address.
- 14. Warranties (Product Data) include but are not limited to statements signed by responsible officials of a manufacturer of a product, system, or material attesting that the product, system, or material will perform its specific function over a specified duration of time. The statement must be dated, and include the name of the project, the Owner's name, and other pertinent data relating to the warranty.
- 15. Samples (Samples) include both fabricated and non-fabricated physical examples of materials, products, and units of work as complete units or as portions of units of work
- 16. Color Selection Samples (Samples) mean samples of the available choice of colors, textures, and finishes of a product or material, presented over substrates identical in texture to that proposed for the work.

- 17. Sample Panels (Samples) mean assemblies constructed at the project site in a location acceptable to the Owner and using materials and methods to be employed in the work; completely finished; maintained during construction; and removed at the conclusion of the work or when authorized by the Owner.
- 18. Sample Installations (Samples) mean portions of an assembly or material constructed where directed and, if approved, retained as a part of the work.
- 19. Record means documentation to ensure compliance with an administrative requirement or to establish an administrative mechanism.
- 20. Operating and Maintenance Manuals (Records) mean data intended to be incorporated in an Operating and Maintenance Manual.
- 21. Test Reports of Existing Conditions mean documents describing existing conditions and operations of systems and components prior to the start of any work. Testing shall be held in the presence of the Owner. Provide copies of the test reports to the Owner.
- 22. Demonstration means physical operation of equipment and systems by factory authorized representatives to demonstrate to the Owner's facility personnel proper operation of systems. Provide all required documentation that certified completed demonstration.
- 23. As-Built Drawings means delineated documentation accurately depicting final installation location of components and systems of the building.
- 24. Shop Drawings in Electronic format mean that when drawings are required all materials shall be provided in AUTOCAD latest release and PDF and/or BIM on a CD/DVD.
- 25. Coordination Drawings mean the special type of Shop Drawings that show the relationship and integration of different construction elements that require close and careful coordination during fabrication or during installation to fit in the restricted space provided or to function as intended.
- 26. Certification of Approved Disposal of Hazardous Materials means the certification signed by the General Contractor indicating legal disposal of hazardous materials.
- 27. CD/DVD Training Tape means the taped training instructions to be used by the Owner's personnel.
- 28. Spare Parts Memo means the listing of spare parts required; refer to Section 01700.
- 29. UL Letter of Finding means a document from Underwriters Laboratories Inc., attesting compliance with UL's standard for connection to an existing lightning protection system; a document from Underwriters Laboratories Inc., attesting compliance with UL's standard for UL Master Label.
- 30. Equipment Check-Out Memos mean documents signed by the manufacturer's authorized representative stating that equipment has been installed and is operating in accordance with the manufacturer's specifications; refer to Section 01700.
- B. Submittal Register: The General Contractor is to maintain an accurate updated Submittal Register and will bring this register to each scheduled OAC meeting with the Owner. The Submittal Register should include the following items:
 - 1. Submittal-Description and Number assigned.
 - Date to Owner.
 - 3. Date to Designer as appropriate.
 - 4. Date returned to Owner.
 - 5. Date returned to General Contractor from Owner.
 - 6. Submittal Status.
 - 7. Date of Re-submittal and Return (as applicable).
 - 8. Date material released (for fabrication).
 - 9. Projected date of fabrication.
 - 10. Projected date of delivery to site.
 - 11. Status of submittal.

- 12. Specification Section Number.
- 13. Specification Paragraph Number.
- 14. Owner Reviewer.
- 15. Designer Reviewer.
- 16. Transmittal Control Number.
- 17. Planned Submittal Date.
- 18. Action Code.
- 19. Date of Action.
- 20. Remarks.

END OF SECTION

SECTION 01740 - WARRANTIES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section specifies general administrative and procedural requirements for warranties required by the Contact Documents, including manufacturer's standard warranties on products and special warranties.
 - General closeout requirements are included in Section 01700 PROJECT CLOSEOUT.
 - 2. Specific requirements for warranties for the Work and products and installation that are specified to be warranted are included in the individual Sections of the Specifications.
 - 3. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.

B. Disclaimers and Limitations:

. Manufacturer's disclaimers and limitations on product warranties do not relieve the General Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the General Contractor.

1.02 DESCRIPTION OF REQUIREMENTS/DEFINITIONS

- A. Categories of Specific Warranties:
 - It is recognized that warranties on the Work are in several categories, including those of the conditions of the Contract and including (but not necessarily limited to) the following specific categories related to the individual units of Work specified in the sections of the Specifications:
 - a. Special Warranty (Guarantee): A warranty specifically written and signed by the General Contractor for a defined portion of the Work; and, where required, countersigned by subcontractor, installer, manufacturer or other entity engaged by General Contractor. Formerly generally recognized as (and sometimes specified in Contract Documents as) a "guarantee".
 - b. Specified Product Warranty: A warranty which is required by Contract Documents to be provided for a manufactured product which is incorporated into the Work, regardless of whether the manufacturer has published the warranty without consideration for specific incorporation of product into the Work, or has written and executed the warranty as a direct result of Contact Documents requirements.
 - c. Coincidental Product Warranty: A warranty which is not specifically required by Contract Documents (other than as specified in this Section) but which is available on a product incorporated into the Work by virtue of the fact that the manufacturer of the product has published the warranty in connection with purchases and uses of product without regard for specific applications, except as otherwise limited by terms of the warranty.

B. Definition: Manufactured Product:

A physical item for incorporation into the Work which has been produced from raw or natural materials by a manufacturing process and which is purchased from a manufacturer either specifically for the Work or for General Contractor's/subcontractor's/fabricator's/installer's stock from which it is drawn for incorporation into the Work.

C. General Limitations:

- 1. It is recognized that specific warranties are intended primarily to protect Owner against failure of Work to perform as required and against deficient, defective and faulty materials and workmanship, regardless of sources. Except as otherwise indicated, specific warranties do not cover failures in Work which result from:
 - a. Damage or defect caused by abuse;
 - b. Modifications not executed by the General Contractor;
 - c. Improper operations, or normal wear and tear under normal usage.
- Although manufacturer's commitments in product warranties on products used in the Work are generally written to exclude product failures which result from failure of other Work (such as failure of substrate supporting product), such limitations in product warranties do not relieve General Contractor of the more general warranties on Work which incorporates use of such products. Except as otherwise indicated, this same relationship applies to units of Work performed by other entities (other than manufacturers), such as fabricators, installers and subcontractors, who are required to countersign special Project warranties with General Contractor for such units of Work.
- 3. Owner's signature on any manufacturer's or other warranties does not excuse the General Contractor from its common law warranty obligations or its contractual warranty obligations.

1.03 WARRANTY REQUIREMENTS

A. Related Damages and Losses:

When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.

B. Reinstatement of Warranty:

When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty will be equal to the original warranty.

C. Replacement Cost:

Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The General Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

D. Owner's Recourse:

 Written warranties made to the Owner are in addition to contractual and implied warranties and will not limit the duties, obligations, rights and remedies otherwise available under the law, nor will warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.

- a. Rejection of Warranties: The Owner reserves the right to reject warranties. The Owner reserves the right to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- 2. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work until evidence is presented that entities required to countersign such commitments are willing to do so.
- Written warranties shall not require the signature of the Owner for compliance.

1.04 SUBMITTALS

- A. Submit written warranties to the Owner prior to the date certified for Final Payment.
 - 1. When a special warranty is required to be executed by the General Contractor, or the General Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties.

Submit a draft to the Owner for approval prior to final execution.

- a. Refer to individual sections of Division 2 through 16 for specific content requirements and particular requirements for submittal of special warranties.
- 2. Submit specific warranties for beginning of the warranty periods. Date(s) will be inserted to correspond with certification or acceptance dates, as established and accepted by the Owner.

B. Form of Submittal:

- Compile one copy of each required warranty properly executed by the General Contractor, or by the General Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Record Project Manual.
- 2. Bind warranties in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, with thickness as necessary to accommodate contents, and sized to receive 8-1/2" by 11" paper.
 - a. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address and telephone number of the installer.
 - b. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS," the Project title or name, and the name of the General Contractor.
- 3. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

HNTB Project No. 73150

SECTION 081113 - HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes hollow-metal work.
- B. Related Requirements:
 - 1. Section 087100 "Door Hardware" for door hardware for hollow-metal doors.

1.3 DEFINITIONS

 A. Minimum Thickness: Minimum thickness of base metal without coatings according to NAAMM-HMMA 803 or SDI A250.8.

1.4 COORDINATION

A. Coordinate anchorage installation for hollow-metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, core descriptions, fire-resistance ratings, temperature-rise ratings, and finishes.
- B. Shop Drawings: Include the following:
 - 1. Elevations of each door type.
 - 2. Details of doors, including vertical- and horizontal-edge details and metal thicknesses.
 - 3. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
 - 4. Locations of reinforcement and preparations for hardware.
 - 5. Details of each different wall opening condition.
 - 6. Details of anchorages, joints, field splices, and connections.
 - 7. Details of accessories.
 - 8. Details of moldings, removable stops, and glazing.
 - 9. Details of conduit and preparations for power, signal, and control systems.
- C. Schedule: Provide a schedule of hollow-metal work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with final Door Hardware Schedule.

- D. Product Test Reports: For each type of hollow-metal door and frame assembly, for tests performed by a qualified testing agency.
- E. Oversize Construction Certification: For assemblies required to be fire rated and exceeding limitations of labeled assemblies.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver hollow-metal work palletized, packaged, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic.
 - 1. Provide additional protection to prevent damage to factory-finished units.
- B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.
- C. Store hollow-metal work vertically under cover at Project site with head up. Place on minimum 4-inch-high wood blocking. Provide minimum 1/4-inch space between each stacked door to permit air circulation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Curries Company; an Assa Abloy Group company.
 - 2. Kewanee.
 - 3. Republic.
 - 4. Steelcraft; an Ingersoll-Rand company.
- B. Source Limitations: Obtain hollow-metal work from single source from single manufacturer.

2.2 REGULATORY REQUIREMENTS

- A. Fire-Rated Assemblies: Complying with NFPA 80 and listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction for fire-protection ratings and temperature-rise limits indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.
 - Smoke- and Draft-Control Assemblies: Provide an assembly with gaskets listed and labeled for smoke and draft control by a qualified testing agency acceptable to authorities having jurisdiction, based on testing according to UL 1784 and installed in compliance with NFPA 105.
- B. Fire-Rated, Borrowed-Light Assemblies: Complying with NFPA 80 and listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction for fire-protection ratings indicated, based on testing according to NFPA 257 or UL 9.

2.3 INTERIOR DOORS AND FRAMES

- A. Construct interior doors and frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.
- B. Extra-Heavy-Duty Doors and Frames: SDI A250.8, Level 3.
 - 1. Physical Performance: Level A according to SDI A250.4.
 - 2. Doors:
 - a. Type: As indicated in the Door and Frame Schedule.
 - b. Thickness: 1-3/4 inches.
 - c. Face: Metallic-coated, cold-rolled steel sheet, base metal minimum thickness of 0.060 inch.
 - d. Edge Construction: Model 2, Seamless.
 - e. Core: Manufacturer's standard kraft-paper honeycomb, polystyrene, polyurethane, polyisocyanurate, mineral-board, or vertical steel-stiffener core at manufacturer's discretion.
 - 3. Frames:
 - a. Materials: Uncoated, steel sheet, minimum thickness of 0.053 inch.
 - b. Construction: Full profile welded.
 - 4. Exposed Finish: Prime.
- C. Maximum-Duty Doors and Frames: SDI A250.8, Level 4. For storage and stairwell doors.
 - 1. Physical Performance: Level A according to SDI A250.4.
 - 2. Doors:
 - a. Type: As indicated in the Door and Frame Schedule.
 - b. Thickness: 1-3/4 inches
 - c. Face: Metallic-coated, cold-rolled steel sheet, minimum thickness of 0.067 inch.
 - d. Edge Construction: Model 2, Seamless.
 - e. Core: Manufacturer's standard vertical steel-stiffener core at manufacturer's discretion.
 - 3. Frames:
 - a. Materials: Metallic-coated steel sheet, minimum thickness of 0.067 inch.
 - b. Construction: Full profile welded.
 - 4. Exposed Finish: Rust-inhibiting primer.
 - 5. Doors:
 - a. Type: As indicated in the Door and Frame Schedule.
 - b. Thickness: 1-3/4 inches
 - c. Face: Metallic-coated steel sheet, base metal minimum thickness of 0.067 inch, with minimum A40 coating.
 - d. Edge Construction: Model 2, Seamless.
 - e. Top Edges: Steel cap in addition to top closure channel. Cap shall not be recessed.
 - f. Core: Manufacturer's standard polystyrene or polyurethane core at manufacturer's discretion.

6. Frames:

- a. Materials: Metallic-coated steel sheet, minimum thickness of 0.067 inch, with minimum A40 coating.
- b. Construction: Full profile welded.
- 7. Exposed Finish: Prime.

2.4 HOLLOW-METAL PANELS

 Provide hollow-metal panels of same materials, construction, and finish as adjacent door assemblies.

2.5 FRAME ANCHORS

A. Jamb Anchors:

- 1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177 inch thick.
- 2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch thick.
- 3. Compression Type for Drywall Slip-on Frames: Adjustable compression anchors.
- 4. Postinstalled Expansion Type for In-Place Concrete or Masonry: Minimum 3/8-inch-diameter bolts with expansion shields or inserts. Provide pipe spacer from frame to wall, with throat reinforcement plate, welded to frame at each anchor location.
- B. Floor Anchors: Formed from same material as frames, minimum thickness of 0.042 inch, and as follows:
 - 1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.
 - 2. Separate Topping Concrete Slabs: Adjustable-type anchors with extension clips, allowing not less than 2-inch height adjustment. Terminate bottom of frames at finish floor surface.

2.6 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
- B. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.
- C. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B.
- D. Frame Anchors: ASTM A 879/A 879M, Commercial Steel (CS), 04Z coating designation; mill phosphatized.
 - 1. For anchors built into exterior walls, steel sheet complying with ASTM A 1008/A 1008M or ASTM A 1011/A 1011M, hot-dip galvanized according to ASTM A 153/A 153M, Class B.
- E. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.

- F. Power-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hollow-metal frames of type indicated.
- G. Grout: ASTM C 476, except with a maximum slump of 4 inches, as measured according to ASTM C 143/C 143M.
- H. Mineral-Fiber Insulation: ASTM C 665, Type I (blankets without membrane facing); consisting of fibers manufactured from slag or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E 136 for combustion characteristics.
- I. Glazing: Comply with requirements in Section 08 8000 "Glazing."
- J. Bituminous Coating: Cold-applied asphalt mastic, compounded for 15-mil dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

2.7 FABRICATION

- A. Fabricate hollow-metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for metal thickness. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.
- B. Hollow-Metal Doors:
 - 1. Steel-Stiffened Door Cores: Provide minimum thickness 0.026 inch, steel vertical stiffeners of same material as face sheets extending full-door height, with vertical webs spaced not more than 6 inches apart. Spot weld to face sheets no more than 5 inches o.c. Fill spaces between stiffeners with glass- or mineral-fiber insulation.
 - 2. Fire Door Cores: As required to provide fire-protection and temperature-rise ratings indicated.
 - 3. Vertical Edges for Single-Acting Doors: Bevel edges 1/8 inch in 2 inches.
 - 4. Top Edge Closures: Close top edges of doors with flush closures of same material as face sheets reinforced with 14 ga. galvannealed channels welded to both panels.
 - 5. Bottom Edge Closures: Close bottom edges of doors reinforced with 14 ga. galvannealed channels welded to both panels.
 - 6. Closer Reinforcement: All doors to receive 14 ga. closer reinforcement whether or not door is scheduled to receive a closer.
 - 7. Exterior Doors: Provide weep-hole openings in bottoms of exterior doors to permit moisture to escape. Seal joints in top edges of doors against water penetration.
 - 8. Astragals: Provide overlapping astragal on one leaf of pairs of doors where required by NFPA 80 for fire-performance rating or where indicated. Extend minimum 3/4 inch beyond edge of door on which astragal is mounted or as required to comply with published listing of qualified testing agency.
- C. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
 - 1. Sidelight and Transom Bar Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by butt welding.
 - 2. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.

- 3. Grout Guards: Weld guards to frame at back of hardware mortises in frames to be grouted.
- 4. Floor Anchors: Weld anchors to bottoms of jambs with at least four spot welds per anchor; however, for slip-on drywall frames, provide anchor clips or countersunk holes at bottoms of jambs.
- 5. Jamb Anchors: Provide number and spacing of anchors as follows:
 - a. Stud-Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
 - 1) Three anchors per jamb up to 60 inches high.
 - 2) Four anchors per jamb from 60 to 90 inches high.
 - 3) Five anchors per jamb from 90 to 96 inches high.
 - 4) Five anchors per jamb plus one additional anchor per jamb for each 24 inches or fraction thereof above 96 inches high.
 - b. Compression Type: Not less than two anchors in each frame.
 - c. Postinstalled Expansion Type: Locate anchors not more than 6 inches from top and bottom of frame. Space anchors not more than 26 inches o.c.
- 6. Head Anchors: Two anchors per head for frames more than 42 inches wide and mounted in metal-stud partitions.
- 7. Door Silencers: Except on weather-stripped frames, drill stops to receive door silencers as follows. Keep holes clear during construction.
 - a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
 - b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.
- D. Fabricate concealed stiffeners and edge channels from either cold- or hot-rolled steel sheet.
- E. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and templates.
 - Reinforce doors and frames to receive nontemplated, mortised, and surface-mounted door hardware. All doors to receive closer reinforcement regardless if door is scheduled to receive a closer.
 - 2. Comply with applicable requirements in SDI A250.6 and BHMA A156.115 for preparation of hollow-metal work for hardware.
- F. Stops and Moldings: Provide stops and moldings around glazed lites and louvers where indicated. Form corners of stops and moldings with mitered hairline joints.
 - Single Glazed Lites: Provide fixed stops and moldings welded on secure side of hollowmetal work.
 - 2. Multiple Glazed Lites: Provide fixed and removable stops and moldings so that each glazed lite is capable of being removed independently.
 - 3. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.
 - 4. Provide loose stops and moldings on inside of hollow-metal work.
 - 5. Coordinate rabbet width between fixed and removable stops with glazing and installation types indicated.

2.8 STEEL FINISHES

A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.

1. Shop Primer: Epoxy zinc-rich primer, recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

2.9 ACCESSORIES

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.
- C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove welded-in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.
- B. Drill and tap doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.

3.3 INSTALLATION

- A. General: Install hollow-metal work plumb, rigid, properly aligned, and securely fastened in place. Comply with Drawings and manufacturer's written instructions.
- B. Hollow-Metal Frames: Install hollow-metal frames of size and profile indicated. Comply with SDI A250.11 or NAAMM-HMMA 840 as required by standards specified.
 - 1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
 - a. At fire-rated openings, install frames according to NFPA 80.
 - b. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
 - c. Install frames with removable stops located on secure side of opening.
 - d. Install door silencers in frames before grouting.
 - e. Remove temporary braces necessary for installation only after frames have been properly set and secured.
 - f. Check plumb, square, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.

- g. Field apply bituminous coating to backs of frames that will be filled with grout containing antifreezing agents.
- 2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with postinstalled expansion anchors.
- 3. Metal-Stud Partitions: Solidly pack mineral-fiber insulation inside frames.
- 4. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout.
- 5. Concrete Walls: Solidly fill space between frames and concrete with mineral-fiber insulation.
- 6. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
- 7. In-Place Metal or Wood-Stud Partitions: Secure slip-on drywall frames in place according to manufacturer's written instructions.
- 8. Installation Tolerances: Adjust hollow-metal door frames for squareness, alignment, twist, and plumb to the following tolerances:
 - a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
 - b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
 - c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
 - d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor.
- C. Hollow-Metal Doors: Fit hollow-metal doors accurately in frames, within clearances specified below. Shim as necessary.

3.4 ADJUSTING AND CLEANING

- A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow-metal work that is warped, bowed, or otherwise unacceptable.
- B. Remove grout and other bonding material from hollow-metal work immediately after installation.
- C. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.
- D. Metallic-Coated Surface Touchup: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.
- E. Touchup Painting: Cleaning and touchup painting of abraded areas of paint are specified in painting Sections.

END OF SECTION 081113

SECTION 081416 - FLUSH WOOD DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Five-ply flush wood veneer-faced doors for transparent finish.
 - 2. Factory finishing flush wood doors.
 - 3. Factory fitting flush wood doors to frames and factory machining for hardware.
- B. Related Requirements:
 - 1. Section 088000 "Glazing" for glass view panels in flush wood doors.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product, including the following:
 - 1. Door core materials and construction.
 - 2. Door edge construction
 - 3. Door face type and characteristics.
 - 4. Door trim for openings.
 - 5. Factory-machining criteria.
 - Factory- finishing specifications.
- B. Shop Drawings: Indicate location, size, and hand of each door; elevation of each type of door; construction details not covered in Product Data; and the following:
 - 1. Door schedule indicating door location, type, size, fire protection rating, and swing.
 - 2. Door elevations, dimension and locations of hardware, lite and louver cutouts, and glazing thicknesses.
 - 3. Dimensions and locations of blocking for hardware attachment.
 - 4. Dimensions and locations of mortises and holes for hardware.
 - 5. Clearances and undercuts.
 - 6. Requirements for veneer matching.
 - 7. Doors to be factory finished and application requirements.
 - 8. Apply AWI Quality Certification Program label to Shop Drawings.
- C. Samples for Initial Selection: For factory-finished doors.

- D. Samples for Verification:
 - 1. Factory finishes applied to actual door face materials, approximately 8 by 10 inches, for each material and finish.
 - 2. Corner sections of doors, approximately 8 by 10 inches, with door faces and edges representing actual materials to be used.
 - 3. Frames for light openings, 6 inches long, for each material, type, and finish required.

1.5 INFORMATIONAL SUBMITTALS

- A. Field quality-control reports.
- B. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Special warranties.
- B. Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.
- C. Record Documents: For fire-rated doors, list of door numbers and applicable room name and number to which door accesses.

1.7 QUALITY ASSURANCE

- A. Manufacturer's Certification: Licensed participant in AWI's Quality Certification Program.
- B. Fire-Rated Door Inspector Qualifications: Inspector for field quality-control inspections of fire-rated door assemblies shall comply with qualifications set forth in NFPA 80, Section 5.2.3.1 and the following:

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of referenced standard and manufacturer's written instructions.
- B. Package doors individually in plastic bags or cardboard cartons.
- C. Mark each door on top and bottom rail with opening number used on Shop Drawings.

1.9 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install doors until building is enclosed and weathertight, wet work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 deg F and relative humidity between 25 and 55 percent during remainder of construction period.

1.10 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.

- 1. Failures include, but are not limited to, the following:
 - a. Delamination of veneer.
 - b. Warping (bow, cup, or twist) more than 1/4 inch in a 42-by-84-inch section.
 - c. Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch span.
- Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
- 3. Warranty Period for Hollow-Core Interior Doors: Two year(s) from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain flush wood doors from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Fire-Rated Wood Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction, for fire-protection ratingsindicated on Drawings, based on testing at positive pressure in accordance with UL 10C or NFPA 252.
 - 1. Oversize Fire-Rated Door Assemblies: For units exceeding sizes of tested assemblies, provide certification by a qualified testing agency that doors comply with standard construction requirements for tested and labeled fire-rated door assemblies except for size.

2.3 FLUSH WOOD DOORS, GENERAL

- A. Quality Standard: In addition to requirements specified, comply with AWI/AWMAC/WI's "Architectural Woodwork Standards."
 - 1. Provide labels and certificates from AWI certification program indicating that doors comply with requirements of grades specified.

2.4 SOLID-CORE FIVE-PLY FLUSH WOOD VENEER-FACED DOORS FOR TRANSPARENT FINISH

A. Interior Doors:

- 1. <u>Manufacturers:</u> Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Eggers Industries.
 - b. <u>Lambton Doors</u>.
 - c. Masonite Architectural.
 - d. Oshkosh Door Company.

- e. VT Industries Inc.
- 2. Performance Grade: ANSI/WDMA I.S. 1A Heavy Duty.
- 3. Architectural Woodwork Standards Grade: Custom.
- 4. Faces: Single-ply wood veneer not less than 1/50 inch thick.
 - a. Species: Select white ash.
 - b. Cut: Quarter sliced.
 - c. Match between Veneer Leaves: Random match.
 - d. Assembly of Veneer Leaves on Door Faces: Running match.
 - e. Pair and Set Match: Provide for doors hung in same opening.
- 5. Exposed Vertical Edges: Same species as faces Architectural Woodwork Standards edge Type A.
 - a. Mineral-Core Doors: At hinge stiles, provide laminated-edge construction with improved screw-holding capability and split resistance. Comply with specified requirements for exposed edges.
 - 1) Screw-Holding Capability: 475 lbf in accordance with WDMA T.M. 10.
- 6. Core for Non-Fire-Rated Doors:
 - a. ANSI A208.1, particleboard.
 - 1) Blocking: Provide wood blocking in particleboard-core doors as needed to eliminate through-bolting hardware.
- 7. Core for Fire-Rated Doors: As required to achieve fire-protection rating indicated on Drawings.
 - a. Blocking for Mineral-Core Doors: Provide composite blocking with improved screw-holding capability approved for use in doors of fire-protection ratings indicated on Drawings as needed to eliminate through-bolting hardware.
- 8. Construction: Five plies, hot-pressed bonded (vertical and horizontal edging is bonded to core), with entire unit abrasive planed before veneering.

2.5 LIGHT FRAMES

- A. Wood Beads for Light Openings in Wood Doors: Provide manufacturer's standard wood beads unless otherwise indicated.
 - 1. Wood Species: Same species as door faces.
 - 2. Profile: Flush rectangular beads.
 - 3. At wood-core doors with 20-minute fire-protection ratings, provide wood beads and metal glazing clips approved for such use.
- B. Wood-Veneered Beads for Light Openings in Fire-Rated Doors: Manufacturer's standard wood-veneered noncombustible beads matching veneer species of door faces and approved for use in doors of fire-protection rating indicated on Drawings. Include concealed metal glazing clips where required for opening size and fire-protection rating indicated.

2.6 FABRICATION

- A. Factory fit doors to suit frame-opening sizes indicated.
 - 1. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.
 - 2. Comply with NFPA 80 requirements for fire-rated doors.
- B. Factory machine doors for hardware that is not surface applied.
 - 1. Locate hardware to comply with DHI-WDHS-3.
 - 2. Comply with final hardware schedules, door frame Shop Drawings, ANSI/BHMA-156.115-W, and hardware templates.
 - 3. Coordinate with hardware mortises in metal frames, to verify dimensions and alignment before factory machining.
 - 4. For doors scheduled to receive electrified locksets, provide factory-installed raceway and wiring to accommodate specified hardware.
 - Metal Astragals: Factory machine astragals and formed-steel edges for hardware for pairs of fire-rated doors.
- C. Openings: Factory cut and trim openings through doors.
 - 1. Light Openings: Trim openings with moldings of material and profile indicated.
 - 2. Glazing: Factory install glazing in doors indicated to be factory finished. Comply with applicable requirements in Section 088000 "Glazing."

2.7 FACTORY FINISHING

- A. Comply with referenced quality standard for factory finishing.
 - 1. Complete fabrication, including fitting doors for openings and machining for hardware that is not surface applied, before finishing.
 - 2. Finish faces, all four edges, edges of cutouts, and mortises.
- B. Factory finish doors.
- C. Transparent Finish:
 - 1. Architectural Woodwork Standards Grade: Custom.
 - 2. Finish: Architectural Woodwork Standards System-5, Varnish, Conversion.
 - 3. Effect: Open-grain finish.
 - 4. Sheen: Satin.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors and installed door frames, with Installer present, before hanging doors.
 - Verify that installed frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jambs.
 - 2. Reject doors with defects.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Hardware: For installation, see Section 087100 "Door Hardware."
- B. Install doors to comply with manufacturer's written instructions and referenced quality standard, and as indicated.
- C. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.
- D. Factory-Finished Doors: Restore finish before installation if fitting or machining is required at Project site.

3.3 FIELD QUALITY CONTROL

- A. Inspection Agency: Construction Manager will engage a qualified inspector to perform inspections and to furnish reports to Architect.
- B. Inspections:
 - 1. Provide inspection of installed Work through AWI's Quality Certification Program, certifying that wood doors and frames, including installation, comply with requirements of AWI/AWMCA/WI's "Architectural Woodwork Standards" for the specified grade.
 - 2. Fire-Rated Door Inspections: Inspect each fire-rated door in accordance with NFPA 80, Section 5.2.
- C. Repair or remove and replace installations where inspections indicate that they do not comply with specified requirements.
- D. Reinspect repaired or replaced installations to determine if replaced or repaired door assembly installations comply with specified requirements.

3.4 ADJUSTING

- A. Operation: Rehang or replace doors that do not swing or operate freely.
- B. Finished Doors: Replace doors that are damaged or that do not comply with requirements. Doors may be repaired or refinished if Work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION 081416

SECTION 092216 - NON-STRUCTURAL METAL FRAMING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Non-load-bearing steel framing systems for interior gypsum board assemblies.
 - 2. Suspension systems for interior gypsum ceilings, soffits, and grid systems.
- B. Related Requirements:
 - Section 05 4000 "Cold-Formed Metal Framing" for exterior and interior load-bearing and exterior non-load-bearing wall studs; floor joists; roof rafters and ceiling joists; and roof trusses.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Test-Response Characteristics: For fire-resistance-rated assemblies that incorporate non-load-bearing steel framing, provide materials and construction identical to those tested in assembly indicated, according to ASTM E 119 by an independent testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated, according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.

2.2 FRAMING SYSTEMS

- A. Framing Members, General: Comply with ASTM C 754 for conditions indicated.
 - Steel Sheet Components: Comply with ASTM C 645 requirements for metal unless otherwise indicated.
 - 2. Protective Coating: ASTM A 653/A 653M, G40, hot-dip galvanized unless otherwise indicated.

- B. Studs and Runners: ASTM C 645. Use either steel studs and runners and runners.
 - 1. Steel Studs and Runners:
 - a. Minimum Base-Metal Thickness: 0.032 inch.
 - b. Depth: As indicated on Drawings.
- C. Slip-Type Head Joints: Where indicated, provide the following:
 - 1. Deflection Track: Steel sheet top runner manufactured to prevent cracking of finishes applied to interior partition framing resulting from deflection of structure above; in thickness not less than indicated for studs and in width to accommodate depth of studs.
 - a. Products: Subject to compliance with requirements, provide one of the following:
 - 1) Dietrich Metal Framing; SLP-TRK Slotted Deflection Track.
 - 2) MBA Building Supplies; FlatSteel Deflection Track or Slotted Deflecto Track.
 - 3) Steel Network Inc. (The); VertiClip SLD or VertiTrack VTD Series.
 - 4) Superior Metal Trim; Superior Flex Track System (SFT).
 - 5) Telling Industries; Vertical Slip Track or Vertical Slip Track II.
- D. Firestop Tracks: Top runner manufactured to allow partition heads to expand and contract with movement of the structure while maintaining continuity of fire-resistance-rated assembly indicated; in thickness not less than indicated for studs and in width to accommodate depth of studs.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Fire Trak Corp.; Fire Trak System attached to studs with Fire Trak Posi Klip.
 - b. Grace Construction Products; FlameSafe FlowTrak System.
 - c. Metal-Lite, Inc.; The System.
- E. Flat Strap: Steel sheet for bracing in length and width indicated.
 - 1. Minimum Base-Metal Thickness: 0.033 inch.
- F. Cold-Rolled Channel Bridging: Steel, 0.053-inch minimum base-metal thickness, with minimum 1/2-inch-wide flanges.
 - 1. Depth: 1-1/2 inches.
 - 2. Clip Angle: Not less than 1-1/2 by 1-1/2 inches, 0.068-inch-thick, galvanized steel.
- G. Hat-Shaped, Rigid Furring Channels: ASTM C 645.
 - 1. Minimum Base-Metal Thickness: 0.033 inch.
 - 2. Depth: 7/8 inch.
- H. Resilient Furring Channels: 1/2-inch-deep, steel sheet members designed to reduce sound transmission.
 - 1. Configuration: Asymmetrical or hat shaped.
- I. Cold-Rolled Furring Channels: 0.053-inch uncoated-steel thickness, with minimum 1/2-inch-wide flanges.
 - 1. Depth: 3/4 inch.
 - 2. Furring Brackets: Adjustable, corrugated-edge type of steel sheet with minimum uncoated-steel thickness of 0.033 inch.

- 3. Tie Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.062-inch-diameter wire, or double strand of 0.048-inch-diameter wire.
- J. Z-Shaped Furring: With slotted or nonslotted web, face flange of 1-1/4 inches, wall attachment flange of 7/8 inch, minimum uncoated-metal thickness of 0.032 inch, and depth required to fit insulation thickness indicated.

2.3 SUSPENSION SYSTEMS

- A. Tie Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.062-inch-diameter wire, or double strand of 0.048-inch-diameter wire.
- B. Wire Hangers: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.16 inch in diameter.
- C. Flat Hangers: Steel sheet, 1 by 3/16 inch by length indicated.
- D. Carrying Channels: Cold-rolled, commercial-steel sheet with a base-metal thickness of 0.053 inch and minimum 1/2-inch-wide flanges.
 - 1. Depth: 2-1/2 inches.
- E. Furring Channels (Furring Members):
 - 1. Cold-Rolled Channels: 0.053-inch uncoated-steel thickness, with minimum 1/2-inch-wide flanges, 3/4 inch deep.
 - 2. Steel Studs and Runners: ASTM C 645.
 - a. Minimum Base-Metal Thickness: 0.027 inch.
 - b. Depth: 1-5/8 inches.
 - 3. Hat-Shaped, Rigid Furring Channels: ASTM C 645, 7/8 inch deep.
 - a. Minimum Base-Metal Thickness: 0.033 inch.
 - 4. Resilient Furring Channels: 1/2-inch-deep members designed to reduce sound transmission.
 - a. Configuration: Asymmetrical or hat shaped.
- F. Grid Suspension System for Gypsum Board Ceilings: ASTM C 645, direct-hung system composed of main beams and cross-furring members that interlock.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Armstrong World Industries, Inc.; Drywall Grid Systems.
 - b. Chicago Metallic Corporation; Drywall Grid System.
 - c. USG Corporation; Drywall Suspension System.

2.4 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards.
 - 1. Fasteners for Metal Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

- B. Isolation Strip at Exterior Walls: Provide the following:
 - 1. Foam Gasket: Adhesive-backed, closed-cell vinyl foam strips that allow fastener penetration without foam displacement, 1/8 inch thick, in width to suit steel stud size.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Suspended Assemblies: Coordinate installation of suspension systems with installation of overhead structure to ensure that inserts and other provisions for anchorages to building structure have been installed to receive hangers at spacing required to support the Work and that hangers will develop their full strength.
 - Furnish concrete inserts and other devices indicated to other trades for installation in advance of time needed for coordination and construction.
- B. Coordination with Sprayed Fire-Resistive Materials:
 - 1. Before sprayed fire-resistive materials are applied, attach offset anchor plates or ceiling runners (tracks) to surfaces indicated to receive sprayed fire-resistive materials. Where offset anchor plates are required, provide continuous plates fastened to building structure not more than 24 inches o.c.
 - 2. After sprayed fire-resistive materials are applied, remove them only to extent necessary for installation of non-load-bearing steel framing. Do not reduce thickness of fire-resistive materials below that required for fire-resistance ratings indicated. Protect adjacent fire-resistive materials from damage.

3.3 INSTALLATION, GENERAL

- A. Installation Standard: ASTM C 754.
 - 1. Gypsum Plaster Assemblies: Also comply with requirements in ASTM C 841 that apply to framing installation.
 - 2. Portland Cement Plaster Assemblies: Also comply with requirements in ASTM C 1063 that apply to framing installation.
 - 3. Gypsum Veneer Plaster Assemblies: Also comply with requirements in ASTM C 844 that apply to framing installation.
 - 4. Gypsum Board Assemblies: Also comply with requirements in ASTM C 840 that apply to framing installation.

- B. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.
- C. Install bracing at terminations in assemblies.
- D. Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

3.4 INSTALLING FRAMED ASSEMBLIES

- A. Install framing system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.
 - 1. Single-Layer Application: 16 inches o.c. unless otherwise indicated.
 - 2. Multilayer Application: 16 inches o.c. unless otherwise indicated.
 - 3. Tile Backing Panels: 16 inches o.c. unless otherwise indicated.
- B. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.
- C. Install studs so flanges within framing system point in same direction.
- D. Install tracks (runners) at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings except where partitions are indicated to terminate at suspended ceilings. Continue framing around ducts penetrating partitions above ceiling.
 - 1. Slip-Type Head Joints: Where framing extends to overhead structural supports, install to produce joints at tops of framing systems that prevent axial loading of finished assemblies.
 - 2. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install runner track section (for cripple studs) at head and secure to jamb studs.
 - a. Install two studs at each jamb unless otherwise indicated.
 - b. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch clearance from jamb stud to allow for installation of control joint in finished assembly.
 - c. Extend jamb studs through suspended ceilings and attach to underside of overhead structure.
 - 3. Other Framed Openings: Frame openings other than door openings the same as required for door openings unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.
 - 4. Fire-Resistance-Rated Partitions: Install framing to comply with fire-resistance-rated assembly indicated and support closures and to make partitions continuous from floor to underside of solid structure.
 - a. Firestop Track: Where indicated, install to maintain continuity of fire-resistance-rated assembly indicated.
 - 5. Sound-Rated Partitions: Install framing to comply with sound-rated assembly indicated.

Curved Partitions:

- a. Bend track to uniform curve and locate straight lengths so they are tangent to arcs.
- b. Begin and end each arc with a stud, and space intermediate studs equally along arcs. On straight lengths of no fewer than two studs at ends of arcs, place studs 6 inches o.c.

E. Direct Furring:

- 1. Screw to wood framing.
- 2. Attach to concrete or masonry with stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches o.c.

F. Z-Furring Members:

- 1. Erect insulation, specified in Section 07 2100 "Thermal Insulation," vertically and hold in place with Z-furring members spaced 24 inches o.c.
- 2. Except at exterior corners, securely attach narrow flanges of furring members to wall with concrete stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches o.c.
- 3. At exterior corners, attach wide flange of furring members to wall with short flange extending beyond corner; on adjacent wall surface, screw-attach short flange of furring channel to web of attached channel. At interior corners, space second member no more than 12 inches from corner and cut insulation to fit.
- G. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch from the plane formed by faces of adjacent framing.

3.5 INSTALLING SUSPENSION SYSTEMS

- A. Install suspension system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.
 - 1. Hangers: 48 inches o.c.
 - 2. Carrying Channels (Main Runners): 48 inches o.c.
 - 3. Furring Channels (Furring Members): 16 inches o.c.
- B. Isolate suspension systems from building structure where they abut or are penetrated by building structure to prevent transfer of loading imposed by structural movement.
- C. Suspend hangers from building structure as follows:
 - 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structural or suspension system.
 - a. Splay hangers only where required to miss obstructions and offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 - Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with locations of hangers required to support standard suspension system members, install supplemental suspension members and hangers in the form of trapezes or equivalent devices.
 - a. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced installation standards.

- 3. Wire Hangers: Secure by looping and wire tying, either directly to structures or to inserts, eye screws, or other devices and fasteners that are secure and appropriate for substrate, and in a manner that will not cause hangers to deteriorate or otherwise fail.
- 4. Flat Hangers: Secure to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices and fasteners that are secure and appropriate for structure and hanger, and in a manner that will not cause hangers to deteriorate or otherwise fail.
- 5. Do not attach hangers to steel roof deck.
- 6. Do not attach hangers to permanent metal forms. Furnish cast-in-place hanger inserts that extend through forms.
- 7. Do not attach hangers to rolled-in hanger tabs of composite steel floor deck.
- 8. Do not connect or suspend steel framing from ducts, pipes, or conduit.
- D. Fire-Resistance-Rated Assemblies: Wire tie furring channels to supports.
- E. Seismic Bracing: Sway-brace suspension systems with hangers used for support.
- F. Grid Suspension Systems: Attach perimeter wall track or angle where grid suspension systems meet vertical surfaces. Mechanically join main beam and cross-furring members to each other and butt-cut to fit into wall track.
- G. Installation Tolerances: Install suspension systems that are level to within 1/8 inch in 12 feet measured lengthwise on each member that will receive finishes and transversely between parallel members that will receive finishes.

END OF SECTION 092216

SECTION 092900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Interior gypsum board.
- B. Related Requirements:
 - 1. Section 09 2216 "Non-Structural Metal Framing" for non-structural framing and suspension systems that support gypsum board panels.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For the following products:
 - 1. Trim Accessories: Full-size Sample in 12-inch-long length for each trim accessory indicated.

1.4 DELIVERY, STORAGE AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.5 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed.
- C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.

2.2 GYPSUM BOARD, GENERAL

A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.3 INTERIOR GYPSUM BOARD

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. CertainTeed Corp.
 - 2. Georgia-Pacific Gypsum LLC.
 - 3. National Gypsum Company.
 - 4. Temple-Inland.
 - 5. USG Corporation.
- B. Abuse-Resistant Gypsum Board: ASTM C 1629/C 1629M, Level 3.
 - 1. Core: 5/8 inch, Type X.
 - 2. Long Edges: Tapered.
 - 3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.
- C. Moisture- and Mold-Resistant Gypsum Board: ASTM C 1396/C 1396M. With moisture- and mold-resistant core and paper surfaces.
 - 1. Core: 5/8 inch, Type X.
 - 2. Long Edges: Tapered.
 - Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

2.4 SPECIALTY GYPSUM BOARD

- A. Gypsum Board, Type C: ASTM C 1396/C 1396M. Manufactured to have increased fire-resistive capability.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. CertainTeed Corp.; ProRoc Type C.
 - b. Georgia-Pacific Gypsum LLC; Fireguard C.
 - c. National Gypsum Company; Gold Bond Fire-Shield C.
 - d. Temple-Inland; Type TG-C.

- e. USG Corporation; Firecode C Core.
- 2. Thickness: As required by fire-resistance-rated assembly indicated on Drawings.
- 3. Long Edges: Tapered.

2.5 TRIM ACCESSORIES

- A. Interior Trim: ASTM C 1047.
 - Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized steel sheet.
 - 2. Shapes:
 - a. Cornerbead.
 - b. Edge Trim:
 - 1) L-Bead: L-shaped; exposed long flange receives joint compound.
 - a) Fry Reglet; DRML-625.
 - 2) W-Bead: W-shaped; exposed long flanges receive joint compound.
 - a) Fry Reglet: DRMW-625-625.
 - c. Expansion (Control) Joint: Use where indicated.
 - d. Manufactured Reveals:
 - 1) 1/2"W x 5/8"D gyp board reveals: Fry Reglet; DRM-625-50.
 - e. Manufactured Control Joint:
 - 1) Gordon 992-EXP-1458.
 - f. Curved-Edge Cornerbead: With notched or flexible flanges.
 - g. Wallcovering Tuck Joint Reveals:
 - 1) Gordon 927-FR-12 wall reveal.
 - 2) Gordon 966-FT-12 corner reveal.
- B. Aluminum Trim: Extruded accessories of profiles and dimensions indicated.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Fry Reglet Corp.
 - b. Gordon, Inc.
 - c. Pittcon Industries.
 - 2. Aluminum: Alloy and temper with not less than the strength and durability properties of ASTM B 221, Alloy 6063-T5.
 - 3. Finish: Corrosion-resistant primer compatible with joint compound and finish materials specified.

- Manufactured Trim:
 - a. Termination Strip: 1/4-inch by 1/4-inch exposed square bar with long flange receiving joint compound.
 - 1) Gordon: "Final Forms I," 947-CM-25.
 - b. Partition to Mullion Acoustical Closure: Extruded aluminum partition closure, pre-assembled and spring loaded to provide a tight fit for vertical junctures of partitions and window walls. Finished to match mullions and sound tested to a 52 STC rating with acoustical batts for sound attenuation and factory-supplied acoustical sealant.
 - 1) Gordon: "Mullion Mate High STC."
- C. Aluminum Alloy: Alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than the strength and durability properties of aluminum extrusions complying with ASTM B 221 for Alloy and Temper 6063-T5.
 - 1. Aluminum Finish: Clear anodized 200 R-1 finish.
 - 2. Baked-Enamel or Powder-Coat Finish: Minimum dry film thickness of 1.5 mils. Comply with ASTM C 635/C 635M and coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

2.6 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C 475/C 475M.
- B. Joint Tape:
 - 1. Interior Gypsum Board: Paper.
 - 2. Tile Backing Panels: As recommended by panel manufacturer.
- C. Joint Compound for Interior Gypsum Board: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
 - 1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
 - 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
 - a. Use setting-type compound for installing paper-faced metal trim accessories.
 - 3. Fill Coat: For second coat, use setting-type, sandable topping compound.
 - 4. Finish Coat: For third coat, use setting-type, sandable topping compound.
 - 5. Skim Coat: For final coat of Level 5 finish, use setting-type, sandable topping compound.
- D. Joint Compound for Tile Backing Panels:
 - 1. Cementitious Backer Units: As recommended by backer unit manufacturer.

2.7 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.

- B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.
 - 1. Laminating adhesive shall have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- C. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
 - Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch thick
 - For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.
- D. Sound Attenuation Blankets: ASTM C 665, Type I (blankets without membrane facing) produced by combining thermosetting resins with mineral fibers manufactured from glass, slag wool, or rock wool.
 - 1. Fire-Resistance-Rated Assemblies: Comply with mineral-fiber requirements of assembly.
 - 2. Recycled Content of Blankets: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 10 percent.
- E. Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Pecora Corporation; AC-20 FTR.
 - b. USG Corporation; SHEETROCK Acoustical Sealant.
 - 2. Acoustical joint sealant shall have a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
 - 3. For Project Number 8205-18-CUP Central Utilities Plant ONLY:
 - a. Sealant shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
- F. Thermal Insulation: As specified in Section 07 2100 "Thermal Insulation."
- G. Vapor Retarder: As specified in Section 07 2100 "Thermal Insulation."
- H. High-strength expanded metal mesh security barrier
 - 1. Material: Type II, Class 1 carbon steel mesh complying with ASTM F1267 and ASTM A1011, 10 gauge, 3/4-inch diamond.
 - 2. Sheet Size: 48-inch x 96-inch
 - 3. Basis-of-Design Product: Subject to compliance with requirements, provide ClarkDietrich Building Systems, (BM75) Barrier Mesh or comparable product meeting all requirements including sustainability requirements by one of the following manufacturers.
 - a. Alabama Metal Industries Corporation

- b. Metalex, a Jason Company
- c. Niles Fence & Security Products, LLC,

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and framing, with Installer present, for compliance with requirements and other conditions affecting performance.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
 - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
 - 2. Fit gypsum panels around ducts, pipes, and conduits.
 - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch-wide joints to install sealant.
- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide 1/4- to 1/2-inch-wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- I. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both

faces of partitions at perimeters and through penetrations. Comply with ASTM C 919 and with manufacturer's written recommendations for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.

J. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

3.3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
 - 1. Type X: Vertical surfaces unless otherwise indicated.
 - 2. Flexible Type: Apply in double layer at curved assemblies.
 - 3. Ceiling Type: As indicated on Drawings.
 - 4. Abuse-Resistant Type: As indicated on Drawings.
 - 5. Moisture- and Mold-Resistant Type: As indicated on Drawings .
 - 6. Type C: Where required for specific fire-resistance-rated assembly indicated.

B. Single-Layer Application:

- 1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
- 2. On partitions/walls, apply gypsum panels horizontally (perpendicular to framing) unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
 - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
 - b. At stairwells and other high walls, install panels horizontally unless otherwise indicated or required by fire-resistance-rated assembly.
- 3. On Z-furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
- 4. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

C. Multilayer Application:

- On ceilings, apply gypsum board indicated for base layers before applying base layers on walls/partitions; apply face layers in same sequence. Apply base layers at right angles to framing members and offset face-layer joints one framing member, 16 inches minimum, from parallel baselayer joints, unless otherwise indicated or required by fire-resistance-rated assembly.
- 2. On partitions/walls, apply gypsum board indicated for base layers and face layers vertically (parallel to framing) with joints of base layers located over stud or furring member and face-layer joints offset at least one stud or furring member with base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly. Stagger joints on opposite sides of partitions.
- On Z-furring members, apply base layer vertically (parallel to framing) and face layer either vertically (parallel to framing) or horizontally (perpendicular to framing) with vertical joints offset at least one furring member. Locate edge joints of base layer over furring members.
- 4. Fastening Methods: Fasten base layers and face layers separately to supports with screws .
- D. Laminating to Substrate: Where gypsum panels are indicated as directly adhered to a substrate (other than studs, joists, furring members, or base layer of gypsum board), comply with gypsum

board manufacturer's written recommendations and temporarily brace or fasten gypsum panels until fastening adhesive has set.

E. Curved Surfaces:

- 1. Install panels horizontally (perpendicular to supports) and unbroken, to extent possible, across curved surface plus 12-inch-long straight sections at ends of curves and tangent to them.
- 2. For double-layer construction, fasten base layer to studs with screws 16 inches o.c. Center gypsum board face layer over joints in base layer, and fasten to studs with screws spaced 12 inches o.c.

3.4 APPLYING TILE BACKING PANELS

- A. Cementitious Backer Units: ANSI A108.11, at locations indicated to receive tile.
- B. Where tile backing panels abut other types of panels in same plane, shim surfaces to produce a uniform plane across panel surfaces.

3.5 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints at locations indicated on Drawings, and where not shown, according to ASTM C 840 and in specific locations approved by Architect for visual effect.
- C. Interior Trim: Install in the following locations:
 - 1. Cornerbead: Use at outside corners unless otherwise indicated.
 - 2. L-Bead: Use where indicated.
 - 3. Curved-Edge Cornerbead: Use at curved openings.
- D. Aluminum Trim: Install in locations indicated on Drawings.

3.6 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
 - 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
 - 2. Level 2: Panels that are substrate for tile.
 - 3. Level 3: Not used.
 - 4. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.

- a. Primer and its application to surfaces are specified in Section 09 9123 "Interior Painting."
- 5. Level 5: Where indicated on Drawings.
 - a. Primer and its application to surfaces are specified in Section 09 9123 "Interior Painting."
- E. Cementitious Backer Units: Finish according to manufacturer's written instructions.

3.7 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 092900

SECTION 095113 - ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes acoustical panels and exposed suspension systems for interior ceilings.
- B. Related Requirements:
- C. Products furnished, but not installed under this Section, include anchors, clips, and other ceiling attachment devices to be cast in concrete.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified, 6 inches (150 mm) in size.
- C. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:
 - 1. Ceiling suspension-system members.
 - 2. Structural members to which suspension systems will be attached.
 - 3. Method of attaching hangers to building structure.
 - a. Furnish layouts for cast-in-place anchors, clips, and other ceiling attachment devices whose installation is specified in other Sections.
 - 4. Carrying channels or other supplemental support for hanger-wire attachment where conditions do not permit installation of hanger wires at required spacing.
 - 5. Size and location of initial access modules for acoustical panels.
 - 6. Items penetrating finished ceiling and ceiling-mounted items including the following:
 - a. Lighting fixtures.
 - b. Diffusers.
 - c. Grilles.
 - d. Speakers.
 - e. Sprinklers.
 - f. Access panels.
 - g. Perimeter moldings.
 - 7. Show operation of hinged and sliding components covered by or adjacent to acoustical panels.
 - 8. Minimum Drawing Scale: 1/4 inch = 1 foot (1:48).

D. Evaluation Reports: For each acoustical panel ceiling suspension system and anchor and fastener type, from ICC-ES.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For finishes to include in maintenance manuals.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Acoustical Ceiling Units: Full-size panels equal to 2 percent of quantity installed.
 - 2. Suspension-System Components: Quantity of each exposed component equal to 2 percent of quantity installed.
 - 3. Hold-Down Clips: Equal to 2 percent of quantity installed.

1.6 QUALITY ASSURANCE

- A. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
 - 1. Build mockup of typical ceiling area as shown on Drawings.
 - 2. Mockups need to represent actual condition and view.
 - 3. Mockup approval to occur as part of submittal approval and before material order.
 - Approval of mockups does not constitute approval of deviations from the Contract
 Documents contained in mockups unless Architect specifically approves such deviations in writing.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical panels, suspension-system components, and accessories to Project site and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content per manufacturer's written instructions.

1.8 FIELD CONDITIONS

- A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
 - 1. Pressurized Plenums: Operate ventilation system for not less than 48 hours before beginning acoustical panel ceiling installation.

1.9 WARRANTY

- A. Provide specified manufacturer's warranty against defects in workmanship, discoloration, or other defects considered undesirable by Architect.
- B. This warranty shall remain in effect for a minimum period of five (5) years from date of initial acceptance.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain each type of acoustical ceiling panel and its supporting suspension system from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Flame-Spread Index: Class A according to ASTM E 1264.
 - 2. Smoke-Developed Index: 50 or less.

2.3 ACOUSTICAL PANELS (ACL)

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Armstrong World Industries, Inc.
 - 2. CertainTeed Corporation.
 - 3. Rockfon (Rockwool International).
 - 4. USG Corporation.
- B. Acoustical Panel Standard: Provide manufacturer's standard panels according to ASTM E 1264 and designated by type, form, pattern, acoustical rating, and light reflectance unless otherwise indicated.
- C. Classification: Provide panels as follows: See Section 090500 "Finish Legend" for product descriptions.
 - 1. Type and Form: Type IV, mineral base with membrane-faced overlay; Form 2, water felted; with vinyl overlay on face.
 - 2. Pattern: E (lightly textured).
- D. Color: White (To match Existing)
- E. Light Reflectance (LR): Not less than 0.90.
- F. Ceiling Attenuation Class (CAC): Not less than 35.
- G. Noise Reduction Coefficient (NRC): Not less than 0.75.
- H. Edge/Joint Detail: Sloped Tegular.

- I. Thickness: 3/4 inch (19 mm).
- J. Modular Size: 24 by 24 inches (610 by 610 mm).

2.4 METAL SUSPENSION SYSTEM

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Armstrong World Industries, Inc.
 - 2. CertainTeed Corporation.
 - 3. Rockfon (Rockwool International).
 - 4. USG Corporation.
- B. Metal Suspension-System Standard: Provide manufacturer's standard, direct-hung, metal suspension system and accessories according to ASTM C 635/C 635M and designated by type, structural classification, and finish indicated.
 - 1. High-Humidity Finish: Where indicated, provide coating tested and classified for "severe environment performance" according to ASTM C 635/C 635M.
- C. Wide-Face, Capped, Double-Web, Cold Rolled Steel Suspension System: Main and Cross Tees as defined by ASTM C635, commercial quality pretreated and painted hot-dipped galvanized coldrolled steel, exposed surfaces prefinished in manufacturer's standard corrosion resistant enamel paint finish:
 - 1. Tee Profile: Narrow Face 15/16" (22 mm) wide.
 - 2. Structural Classification: Intermediate-duty system.
 - 3. End Condition of Cross Runners: Override (stepped) or butt-edge type.
 - 4. Face Design: Flat, flush.
 - 5. Cap Material: Cold-rolled steel.
 - 6. Cap Finish: Painted white.
- D. Narrow-Face, Capped, Double-Web, Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet; prepainted, electrolytically zinc coated, or hot-dip galvanized, G30 (Z90) coating designation; with prefinished 9/16-inch- (15-mm-) wide metal caps on flanges.
 - 1. Structural Classification: Intermediate-duty system.
 - 2. End Condition of Cross Runners: Override (stepped) or butt-edge type.
 - 3. Face Design: Flat. flush.
 - 4. Cap Material: Cold-rolled steel.
 - 5. Cap Finish: Painted white

2.5 ACCESSORIES

- A. Attachment Devices: Size for five times the design load indicated in ASTM C 635/C 635M, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements.
 - Anchors in Concrete: Anchors of type and material indicated below, with holes or loops for attaching hangers of type indicated and with capability to sustain, without failure, a load equal to five times that imposed by ceiling construction, as determined by testing according to ASTM E 488/E 488M or ASTM E 1512 as applicable, conducted by a qualified testing and inspecting agency.

- a. Type: Cast-in-place, Postinstalled expansion or Postinstalled bonded anchors.
- b. Corrosion Protection: Carbon-steel components zinc plated according to ASTM B 633, Class SC 1 (mild) service condition.
- c. Corrosion Protection: Stainless-steel components complying with ASTM F 593 and ASTM F 594, Group 1 Alloy 304 or 316.
- d. Corrosion Protection: Components fabricated from nickel-copper-alloy rods complying with ASTM B 164 for UNS No. N04400 alloy.
- B. Wire Hangers, Braces, and Ties: Provide wires as follows:
 - 1. Zinc-Coated, Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
 - 2. Size: Wire diameter sufficient for its stress at three times hanger design load (ASTM C 635/C 635M, Table 1, "Direct Hung") will be less than yield stress of wire, but not less than 0.135-inch- (3.5-mm-) 0.106-inch- (2.69-mm-) diameter wire.
- C. Hanger Rods: Mild steel, zinc coated or protected with rust-inhibitive paint.
- D. Flat Hangers: Mild steel, zinc coated or protected with rust-inhibitive paint.
- E. Angle Hangers: Angles with legs not less than 7/8 inch (22 mm) wide; formed with 0.04-inch- (1-mm-) thick, galvanized-steel sheet complying with ASTM A 653/A 653M, G90 (Z275) coating designation; with bolted connections and 5/16-inch- (8-mm-) diameter bolts.
- F. Hold-Down Clips: Manufacturer's standard hold-down.

2.6 METAL EDGE MOLDINGS AND TRIM

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Armstrong World Industries, Inc.
 - 2. CertainTeed Corporation.
 - 3. Rockfon (Rockwool International).
 - 4. USG Corporation.
- B. Roll-Formed, Sheet-Metal Edge Moldings and Trim: Type and profile indicated or, if not indicated, manufacturer's standard moldings for edges and penetrations that comply with seismic design requirements; formed from sheet metal of same material, finish, and color as that used for exposed flanges of suspension-system runners.
 - 1. Edge moldings shall fit acoustical panel edge details and suspension systems indicated and match width and configuration of exposed runners unless otherwise indicated.
 - 2. For lay-in panels with reveal edge details, provide stepped edge molding that forms reveal of same depth and width as that formed between edge of panel and flange at exposed suspension member.
 - 3. For circular penetrations of ceiling, provide edge moldings fabricated to diameter required to fit penetration exactly.

2.7 ACOUSTICAL SEALANT

A. Acoustical Sealant: As specified in Section 079219 "Acoustical Joint Sealants."

2.8 DIRECT APPLIED CEILING SYSTEM

- A. Acoustical Absorptive Ceiling Panel
 - 1. Basis of Design: Provide Decoustics; CAVATTME.
 - 2. Finish: Clean Air Claro.
- B. Suspension System: Manufacturer's standard mechanically fastened panel clips and z-clips.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.
- B. Examine acoustical panels before installation. Reject acoustical panels that are wet, moisture damaged, or mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders unless otherwise indicated, and comply with layout shown on reflected ceiling plans.
- B. Layout openings for penetrations centered on the penetrating items.

3.3 INSTALLATION

- A. Install acoustical panel ceilings according to ASTM C 636/C 636M and manufacturer's written instructions.
- B. Suspend ceiling hangers from building's structural members and as follows:
 - 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
 - 2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 - 3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension-system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
 - 4. Secure wire hangers to ceiling-suspension members and to supports above with a minimum of three tight turns. Connect hangers directly to structure or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.

- 5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
- 6. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors that extend through forms into concrete.
- 7. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
- 8. Do not attach hangers to steel deck tabs.
- 9. Do not attach hangers to steel roof deck. Attach hangers to structural members.
- 10. Space hangers not more than 48 inches (1200 mm) o.c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches (200 mm) from ends of each member.
- 11. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards.
- C. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
 - 1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
 - 2. Screw attach moldings to substrate at intervals not more than 16 inches (400 mm) o.c. and not more than 3 inches (75 mm) from ends. Miter corners accurately and connect securely.
 - 3. Do not use exposed fasteners, including pop rivets, on moldings and trim.
- D. Install suspension-system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- E. Install acoustical panels with undamaged edges and fit accurately into suspension-system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide precise fit.
 - 1. Arrange directionally patterned acoustical panels as follows:
 - a. Install panels with pattern running in one direction parallel to long axis of space.
 - 2. For reveal-edged panels on suspension-system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
 - 3. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
 - 4. Install hold-down clips in areas indicated; space according to panel manufacturer's written instructions unless otherwise indicated.
 - a. Hold-Down Clips: Space 24 inches (610 mm) o.c. on all cross runners.
 - 5. Protect lighting fixtures and air ducts according to requirements indicated for fire-resistance-rated assembly.

3.4 ERECTION TOLERANCES

A. Suspended Ceilings: Install main and cross runners level to a tolerance of 1/8 inch in 12 feet (3 mm in 3.6 m), non-cumulative.

B. Moldings and Trim: Install moldings and trim to substrate and level with ceiling suspension system to a tolerance of 1/8 inch in 12 feet (3 mm in 3.6 m), non-cumulative.

3.5 CLEANING

- A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension-system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage.
- B. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

SECTION 096813 - TILE CARPETING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes modular carpet tile.
- B. Related Requirements:
 - 1. Section 096513 "Resilient Base and Accessories" for resilient wall base and accessories installed with carpet tile.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - Include manufacturer's written data on physical characteristics, durability, and fade resistance.
 - 2. Include manufacturer's written installation recommendations for each type of substrate.
- B. Shop Drawings: For carpet tile installation, plans showing the following:
 - 1. Columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet tiles.
 - 2. Carpet tile type, color, and dye lot.
 - Type of subfloor.
 - 4. Type of installation.
 - 5. Pattern of installation.
 - 6. Pattern type, location, and direction.
 - 7. Pile direction.
 - 8. Type, color, and location of insets and borders.
 - 9. Type, color, and location of edge, transition, and other accessory strips.
 - 10. Transition details to other flooring materials.
- C. Samples for Verification: For each of the following products and for each color and texture required. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules.
 - 1. Carpet Tile: Full-size Sample.
 - 2. Exposed Edge, Transition, and Other Accessory Stripping: 12-inch- (300-mm-) long Samples.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For carpet tiles to include in maintenance manuals. Include the following:

- 1. Methods for maintaining carpet tile, including cleaning and stain-removal products and procedures and manufacturer's recommended maintenance schedule.
- 2. Precautions for cleaning materials and methods that could be detrimental to carpet tile.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Carpet Tile: Full-size units equal to 5 percent of amount installed for each type indicated, but not less than 10 sq. yd. (8.3 sq. m).

1.6 DELIVERY, STORAGE, AND HANDLING

Comply with CRI's "CRI Carpet Installation Standard."

1.7 FIELD CONDITIONS

- A. Comply with CRI's "CRI Carpet Installation Standard" for temperature, humidity, and ventilation limitations.
- B. Environmental Limitations: Do not deliver or install carpet tiles until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at levels planned for building occupants during the remainder of the construction period.
- C. Do not install carpet tiles over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by carpet tile manufacturer.
- D. Where demountable partitions or other items are indicated for installation on top of carpet tiles, install carpet tiles before installing these items.

1.8 WARRANTY

- A. Special Warranty for Carpet Tiles: Manufacturer agrees to repair or replace components of carpet tile installation that fail in materials or workmanship within specified warranty period.
 - 1. Warranty does not include deterioration or failure of carpet tile due to unusual traffic, failure of substrate, vandalism, or abuse.
 - 2. Failures include, but are not limited to, more than 10 percent loss of face fiber, edge raveling, snags, runs, loss of tuft bind strength, dimensional stability, excess static discharge, and delamination.
 - 3. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 CARPET TILE

A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings and in Section 09 0500 "Finish Legend" or comparable product by an approved manufacturer.

2.2 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cement-based formulation provided or recommended by carpet tile manufacturer.
- B. Adhesives: Water-resistant, mildew-resistant, nonstaining, pressure-sensitive type to suit products and subfloor conditions indicated, that comply with flammability requirements for installed carpet tile, and are recommended by carpet tile manufacturer for releasable installation.
- C. Metal Edge/Transition Strips: Extruded aluminum with mill finish of profile and width shown, of height required to protect exposed edge of carpet, and of maximum lengths to minimize running joints, unless otherwise indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting carpet tile performance.
- B. Examine carpet tile for type, color, pattern, and potential defects.
- C. Concrete Slabs: Verify that finishes comply with requirements specified in Section 033000 "Cast-in-Place Concrete" and that surfaces are free of cracks, ridges, depressions, scale, and foreign deposits.
 - 1. Moisture Testing: Perform tests so that each test area does not exceed 200 sq. ft. (18.6 sq. m), and perform at least one test in each independent slab location with test areas evenly spaced in installation areas.
 - a. Anhydrous Calcium Chloride Test: ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. (1.36 kg of water/92.9 sq. m) in 24 hours.
 - b. Relative Humidity Test: Using in situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum 75 percent relative humidity level measurement.
 - c. Perform additional moisture tests recommended in writing by adhesive and carpet tile manufacturers. Proceed with installation only after substrates pass testing.
- D. Painted Subfloors: Perform bond test recommended in writing by adhesive manufacturer.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. General: Comply with CRI's "Carpet Installation Standards" and with carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile.
- B. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, depressions, and protrusions in substrates. Fill or level cracks, holes and depressions 1/8 inch (3 mm) wide or wider, and protrusions more than 1/32 inch (0.8 mm) unless more stringent requirements are required by manufacturer's written instructions.
- C. Concrete Substrates: Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by adhesive and carpet tile manufacturers.
- D. Broom and vacuum clean substrates to be covered immediately before installing carpet tile.

3.3 INSTALLATION

- A. General: Comply with CRI's "CRI Carpet Installation Standard," Section 18, "Modular Carpet" and with carpet tile manufacturer's written installation instructions.
- B. Installation Method: Glue down; install every tile with full-spread, releasable, pressure-sensitive adhesive.
- C. Maintain dye-lot integrity. Do not mix dye lots in same area.
- D. Maintain pile-direction patterns indicated on Drawings.
- E. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet tile manufacturer.
- F. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- G. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on carpet tile as marked on subfloor. Use nonpermanent, nonstaining marking device.
- H. Install pattern parallel to walls and borders.

3.4 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing carpet tile:
 - 1. Remove excess adhesive and other surface blemishes using cleaner recommended by carpet tile manufacturer.
 - 2. Remove yarns that protrude from carpet tile surface.
 - 3. Vacuum carpet tile using commercial machine with face-beater element.
- B. Protect installed carpet tile to comply with CRI's "Carpet Installation Standard," Section 20, "Protecting Indoor Installations."

C. Protect carpet tile against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet tile manufacturer.

SECTION 099123 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes surface preparation and the application of paint systems and high-performance coatings on interior substrates.

1.3 DEFINITIONS

- A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- D. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- E. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
- F. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
- G. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
 - 1. Product Data: For paints and coatings, indicating VOC content.
- B. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- C. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system in schedules at end of this section.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Apply coatings per manufacturer's recommendations for humidity and dew point.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Behr Process Corporation.
 - 2. Cloverdale Paint.
 - 3. Columbia Paint & Coatings.
 - 4. Dunn-Edwards Corporation.
 - 5. Frazee Paint.
 - 6. Kelly-Moore Paints.
 - 7. Miller Paint.
 - 8. Rodda Paint Co.
 - 9. Tnemec.
 - 10. Vista Paint.

2.2 PAINT, GENERAL

- A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."
- B. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

- C. VOC Content: Products shall comply with VOC limits of authorities having jurisdiction and, for interior paints and coatings applied at Project site, the following VOC limits, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
 - 1. Flat Paints and Coatings: 50 g/L.
 - 2. Nonflat Paints and Coatings: 150 g/L.
 - 3. Dry-Fog Coatings: 400 g/L.
 - 4. Primers, Sealers, and Undercoaters: 200 g/L.
 - 5. Anticorrosive and Antirust Paints Applied to Ferrous Metals: 250 g/L.
 - 6. Zinc-Rich Industrial Maintenance Primers: 340 g/L.
 - 7. Pretreatment Wash Primers: 420 g/L.
 - 8. Floor Coatings: 100 g/L.
 - 9. Shellacs, Clear: 730 g/L.
 - 10. Shellacs, Pigmented: 550 g/L.
- D. Colors: See drawings

2.3 BLOCK FILLERS

A. Block Filler, Latex, Interior: MPI #4.

2.4 WATER-BASED PAINTS

- A. Latex, Interior, Institutional Low Odor/VOC, Flat (Gloss Level 1): MPI #143.
- B. Latex, Interior, Institutional Low Odor/VOC, (Gloss Level 2): MPI #144.
- C. Latex, Interior, Institutional Low Odor/VOC, (Gloss Level 3): MPI #145.
- D. Latex, Interior, Institutional Low Odor/VOC, Semi-Gloss (Gloss Level 5): MPI #147.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Concrete: 12 percent.
 - 2. Masonry (Clay and CMU): 12 percent.
 - 3. Wood: 15 percent.
 - 4. Gypsum Board: 12 percent.
 - 5. Plaster: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Plaster Substrates: Verify that plaster is fully cured.

- E. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- F. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceed that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer but not less than the following:
 - 1. SSPC-SP 11, "Power Tool Cleaning to Bare Metal."
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- I. Aluminum Substrates: Remove loose surface oxidation.
- J. Wood Substrates:
 - 1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
 - 2. Sand surfaces that will be exposed to view, and dust off.
 - 3. Prime edges, ends, faces, undersides, and backsides of wood.
 - 4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

K. Cotton or Canvas Insulation Covering Substrates: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
 - 1. Use applicators and techniques suited for paint and substrate indicated.
 - 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 - 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 - 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 - 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
 - 1. Paint the following work where exposed in equipment rooms:
 - a. Uninsulated metal piping.
 - b. Uninsulated plastic piping.
 - c. Pipe hangers and supports.
 - d. Tanks that do not have factory-applied final finishes.
 - e. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
 - 2. Paint the following work where exposed in occupied spaces:
 - a. Uninsulated metal piping.
 - b. Uninsulated plastic piping.
 - c. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
 - 3. Paint portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets that are visible from occupied spaces.
- 3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Design-Builder may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
 - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
 - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.
- B. Paint manufacturer representative is required to make field visit prior to commencement of each product specified and monthly during installation of products. Field Reports including time, date, interior temperature, location on the project and what product was being applied to what item(s). Include the state of substrate preparations or conditions and appropriateness of commencing application.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE

- A. Concrete Substrates, Nontraffic Surfaces:
 - 1. Institutional Low-Odor/VOC Latex System: MPI INT 3.1M.
 - a. Prime Coat: Institutional low-odor/VOC interior latex matching topcoat.
 - b. Intermediate Coat: Institutional low-odor/VOC interior latex matching topcoat.
 - c. Topcoat: Institutional low-odor/VOC interior latex (eggshell)
- B. Concrete Substrates, Traffic Surfaces:
 - 1. Alkyd Floor Enamel System: MPI INT 3.2B.
 - a. Prime Coat: Exterior/interior alkyd floor enamel (gloss).
 - b. Intermediate Coat: Exterior/interior alkyd floor enamel (gloss).
 - c. Topcoat: Exterior/interior alkyd floor enamel (gloss).
 - 2. Water-Based Clear Sealer System: MPI INT 3.2G.
 - a. First Coat: Interior/exterior clear concrete floor sealer (water based).
 - b. Topcoat: Interior/exterior clear concrete floor sealer (water based).
- C. Steel Substrates (unless indicated to receive interior high performance coating):

- 1. Water-Based Dry-Fall System: MPI INT 5.1C.
 - a. Prime Coat: Quick-drying metal primer.
 - b. Topcoat: Latex dry fog/fall.
- 2. Institutional Low-Odor/VOC Latex System: MPI INT 5.1S.
 - a. Prime Coat: Rust-inhibitive primer (water based).
 - b. Intermediate Coat: Institutional low-odor/VOC interior latex matching topcoat.
 - c. Topcoat: Institutional low-odor/VOC interior latex (semigloss).
- 3. Institutional Low-Odor/VOC Latex System: MPI INT 5.3N.
 - a. Prime Coat: Waterborne galvanized-metal primer.
 - b. Intermediate Coat: Institutional low-odor/VOC interior latex matching topcoat.
 - c. Topcoat: Institutional low-odor/VOC interior latex (semigloss).
- D. Wood Panel Substrates: Including painted plywood.
 - 1. Institutional Low-Odor/VOC Latex System: MPI INT 6.4T.
 - a. Prime Coat: Interior latex-based wood primer.
 - b. Intermediate Coat: Institutional low-odor/VOC interior latex matching topcoat.
 - c. Topcoat: Institutional low-odor/VOC interior latex (eggshell).
- E. Gypsum Board Substrates (unless indicated to receive interior high performance coating):
 - 1. Institutional Low-Odor/VOC Latex System: MPI INT 9.2M.
 - a. Prime Coat: Interior latex primer/sealer.
 - b. Intermediate Coat: Institutional low-odor/VOC interior latex matching topcoat.
 - c. Topcoat: Institutional low-odor/VOC interior latex (eggshell).

SECTION 096513 - RESILIENT BASE AND ACCESSORIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Thermoplastic-rubber base.
 - 2. Rubber molding accessories.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified, not less than 12 inches (300 mm) long.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F (10 deg C) or more than 90 deg F (32 deg C).

1.5 FIELD CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F (21 deg C) or more than 95 deg F (35 deg C) Insert temperature, in spaces to receive resilient products during the following periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 48 hours after installation.
- B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 95 deg F (35 deg C).

PART 2 - PRODUCTS

2.1 THERMOPLASTIC-RUBBER BASE

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Flexco.
 - 2. Johnsonite; a Tarkett company.
 - 3. Roppe Corporation, USA.
 - 4. VPI Corporation.
- B. Product Standard: ASTM F 1861, Type TP (rubber, thermoplastic).
 - 1. Group: I (solid, homogeneous).
 - 2. Style and Location:
 - a. Style A, Straight: Provide in areas with carpet.
 - b. Style B, Cove: Provide in areas with resilient floor coverings and other hard surfaces.
- C. Minimum Thickness: 0.125 inch (3.2 mm).
- D. Height: 4 inches (102 mm).
- E. Lengths: Coils in manufacturer's standard length.
- F. Outside Corners: Job formed or preformed.
- G. Inside Corners: Job formed or preformed.
- H. See Section 090500 "Finish Legend" for thicknesses, profiles, heights, and colors.

2.2 RUBBER MOLDING ACCESSORY

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Roppe Corporation, USA.
 - 2. VPI Corporation.
- B. Description: Provide vinyl molding accessories as indicated.
- C. Profile and Dimensions: As indicated.
- D. Locations: Provide rubber molding accessories in areas indicated.
- E. See Section 090500 "Finish Legend" for thicknesses, profiles, heights, and colors.

2.3 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, portland-cement-based or blended hydraulic-cement-based formulation provided or approved by resilient-product manufacturer for applications indicated.

B. Adhesives: Water-resistant type recommended by resilient-product manufacturer for resilient products and substrate conditions indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
 - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
 - 1. Installation of resilient products indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
- C. Do not install resilient products until materials are the same temperature as space where they are to be installed.
 - 1. At least 48 hours in advance of installation, move resilient products and installation materials into spaces where they will be installed.
- D. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient products.

3.3 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- C. Install resilient base in lengths as long as practical without gaps at seams and with tops of adjacent pieces aligned.
- D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.
- F. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material.

- G. Preformed Corners: Install preformed corners before installing straight pieces.
- H. Job-Formed Corners:
 - 1. Outside Corners: Use straight pieces of maximum lengths possible and form with returns not less than 3 inches (76 mm) in length.
 - a. Form without producing discoloration (whitening) at bends.
 - 2. Inside Corners: Use straight pieces of maximum lengths possible and form with returns not less than 3 inches (76 mm) in length.
 - a. Miter or cope corners to minimize open joints.

3.4 RESILIENT ACCESSORY INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient accessories.
- B. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of floor covering that would otherwise be exposed.

3.5 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protecting resilient products.
- B. Perform the following operations immediately after completing resilient-product installation:
 - 1. Remove adhesive and other blemishes from surfaces.
 - 2. Sweep and vacuum horizontal surfaces thoroughly.
 - 3. Damp-mop horizontal surfaces to remove marks and soil.
- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.