

# ADDENDUM NO. 2

**May 26, 2020**

## **KALAMAZOO PUBLIC SCHOOLS – ADMINISTRATION BUILDING REMODEL**

### **TO: ALL BIDDERS OF RECORD**

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions and the Specifications by The Skillman Corporation dated March 10, 2020. Acknowledge receipt of the Addendum in the space provided on the Proposal Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 2-1 through ADD 2-3, dated May 26, 2020, RFI Log dated May 26, 2020 and TowerPinkster Addendum No. 2, dated May 21, 2020, consisting of 3 pages, and issued specification section 08 11 13 Hollow Metal Doors and Frames and modified specification section 08 41 13 Aluminum-Framed Entrances and Storefronts and 23 07 00 HVAC Insulation.

#### **SECTION 00 63 23 CADD FILE TRANSFER WAIVER (ISSUED)**

1. Added specification section in Volume 1.

#### **SECTION 01 33 00 Submittal Procedures (NOT REISSUED)**

1. Revised language in sub-section 1.04.B.1 to read “Architect’s copyright protected CAD drawings are available strictly for the use of preparing shop drawings, in AutoCAD version 2009 format. Architect will furnish files electronically by email after CADD File Transfer Waiver form (see spec section 00 6323) has been completed and returned to Architect.”

#### **SECTION 01 12 00 Multiple Contract Summary (RESISSUED)**

### **3.03 BID CATEGORIES**

#### **A. BID CATEGORY NO. 1 – General Trades**

Delete the following:

1. Section 08 90 00 Louver and Vents to be eliminated from General Trades scope and added to Bid Category NO. 7 – Metal Wall Panels and Louvers.

Added General Trades Clarifications:

2. Revise clarification number 2 to read ‘Aluminum sill pan flashing and aluminum drip associated with louvers to be provided by Bid Category No. 7 – Metal Wall Panels and Louvers contractor.’
4. Bid Category No. 1 – General Trades will provide all wood blocking except for Metal Panel System. Wood blocking shown in detail 1A on Sheet A321 will be provided by Bid Category No. 2 Metal Studs, Drywall and Acoustical Ceilings.
5. General Trades contractor will provide temporary enclosures per specification section 01 52 10 at all window systems after at each window opening.
6. General Trades contractor per specification section 01 50 50 Temporary Facilities and Controls, will provide and maintain Barricades for protection of all people and property of all trades, including fall protection at roofs, warning signs, etc. throughout the duration of project.

**B. BID CATEGORY NO. 2 – Metal Studs, Drywall and Acoustical Ceilings**

Add the following:

1. Specification section 06 10 00 Rough Carpentry

Delete the following:

1. Specification section 07 42 13.19 Insulated Metal Wall Panels
2. Specification section 07 42 13.23 Metal Composite Material Wall Panels

Added Metal-Studs, Drywall, and Acoustical Ceilings Clarifications:

3. Bid Category No. 1 – General Trades will provide all wood blocking except for Metal Panel System. Wood blocking shown in detail 1A on Sheet A321 will be provided by Bid Category No. 2 Metal Studs, Drywall and Acoustical Ceilings.

**D. BID CATEGORY NO. 4 – Flooring**

Add the following:

1. Specification section 09 68 16 Sheet Carpeting

Delete the following:

1. Specification section 09 66 13 Portland Cement Terrazzo Flooring

Added flooring clarification:

1. Base bid must be \$0, all costs associated with flooring scope of work will be part of Alternate No. 2. Cost including but not limited to Allowance amounts, overhead-profit, bonds, insurance, mobilization, meetings, cleanup, etc.

**E. BID CATEGORY NO. 5 – Mechanical**

Add the following:

1. Added Section 01 51 30 Temporary Heating, Ventilation and Cooling

**G. Added NEW BID CATEGORY No. 7 – Metal Wall Panels and Louvers**

|         |             |                                      |
|---------|-------------|--------------------------------------|
| Section | 07 92 00    | Joint Sealants                       |
| Section | 07 42 13.19 | Insulated Metal Wall Panels          |
| Section | 07 42 13.23 | Metal Composite Material Wall Panels |
| Section | 08 90 00    | Louvers and Vents                    |

**Metal Wall Panels and Louvers clarifications:**

1. Aluminum sill pan flashing and aluminum drip associated with louvers to be provided by Bid Category No. 7 – Metal Wall Panels and Louvers contractor.

**SECTION 00 6323 - CADD FILE TRANSFER WAIVER**

At your request, TowerPinkster will provide CADD files to your organization for your convenience and use in the preparation of shop drawings related to the above project, subject to the following terms and conditions:

- Our electronic files are compatible with AutoCAD 2016 and newer software. We make no representation as to the compatibility of these files with your hardware or your software beyond the specified release of the referenced specifications.
- Data contained on these electronic files are part of our instruments of service and shall not be used by you or anyone else receiving this data through or from you for any purpose other than as a convenience in the preparation of shop drawings for the referenced project. Any other use or reuse by you or by others will be at your sole risk and without liability or legal exposure to TowerPinkster. You agree to make no claim and hereby waive, to the fullest extent permitted by law, any claim or cause of action of any nature against us, our officers, directors, employees, agents or subconsultants that may arise out of or in connection with your use of the electronic files.
- Furthermore, you shall, to the fullest extent permitted by law, indemnify and hold us harmless against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising out of or resulting from your use of these electronic files.
- These electronic files are not construction documents. Differences may exist between these electronic files and corresponding hard-copy construction documents. We make no representation regarding the accuracy or completeness of the electronic files you receive. In the event that a conflict arises between the hard-copy construction documents prepared by us and the electronic files, the hard-copy construction documents shall govern. You are responsible for determining if any conflict exists. By your use of these electronic files, you are not relieved of your duty to fully comply with the contract documents, including, and without limitation, the need to check, confirm and coordinate all dimensions and details, take field measurements, verify field conditions and coordinate your work with that of other contractors for the project.
- Because information presented on the electronic files can be modified, unintentionally or otherwise, we reserve the right to remove all indicia of ownership and/or involvement from each electronic display.

We will furnish you with electronic files of the following drawing sheets: \_\_\_\_\_

\_\_\_\_\_

AutoCad Version requested: \_\_\_\_\_

Architect's copyright protected CAD drawings are available strictly for the use of preparing shop drawings. Architect will email files upon receipt this form, fully executed.

Under no circumstances shall delivery of the electronic files for use by you be deemed a sale by us, and we make no warranties, either express or implied, or merchantability and fitness for any particular purpose. In no event shall we be liable for any loss or profit or any consequential damages as a result of your use or reuse of these electronic files.

**REQUESTER'S STATEMENT**

I have reviewed the terms of this request and am in agreement with the conditions stated.

\_\_\_\_\_  
Requester's signature

**END OF DOCUMENT 00 6323**

## **SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY**

### **PART 1 GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Drawings and General Provisions of the Prime Contract, including amended General Conditions and other Division 1 Specification Sections, apply to Work of this Section.

#### **1.02 SUMMARY**

- A. The intent of this Section is to indicate the Work required by the Contractors and to provide information regarding the duties, responsibilities, and cooperation required by the Contractors, with similar requirements for the subcontractors and suppliers.
- B. Owners right to maintain current operations
- C. Occupancy requirements
- D. Work by Owner
- E. Permits, fees, and notices
- F. Labor and materials
- G. Verifications of existing dimensions
- H. Project security
- I. Coordination of work
- J. Time of commencement and completion
- K. Schedule of contract responsibilities

#### **1.03 WORK UNDER SEPARATE CONTRACTS**

- A. Prime Contracts are defined to include the following contracts described in the Schedule of Contract Responsibilities included hereinafter; and each is recognized to be a major part of the project, with Work to be performed concurrently and in close coordination with Work of other Prime Contracts.
- B. The "Contract Documents," as defined in the General Conditions, include "the Drawings." Although Drawings are grouped and identified by classification of the Work, Contractors shall be responsible for their Work as specified herein and as

indicated on the Drawings. Although the majority of the Drawings are "to scale," Contractors are directed to use indicated dimensions for determining material quantities and for other reasons. No additional monies will be allowed due to Contractors using "scaling instruments" to determine material quantities or for other reasons.

- C. Separate prime contracts will be awarded as per the **"Schedule of Contract Responsibilities"** (see Part 3 – Execution). Contractors shall include Work required by the Specifications and Drawings for each contract area defined in the Schedule.
- D. Work for the complete construction of the Project will be under multiple prime contracts with the Owner. The Construction Manager will manage the construction of the Project.
- E. Each Contractor shall be responsible for demolition and disposal of existing items relative to his Contract.

#### **1.04 ADMINISTRATIVE RESPONSIBILITIES OF PRIME CONTRACTORS AND CM**

- A. The Construction Manager shall be responsible for the maintenance of the Construction Schedule and management of every phase of the Work.
  - 1. Each Contractor shall read the Specifications and Drawings for other separate Contracts for fixed equipment and the like to be incorporated or attached or built into the Work; and familiarize himself with the requirements and responsibilities of other Contracts to enable the required coordination and supervision.
  - 2. Each Contractor shall also familiarize himself with other items to be incorporated into the Work including equipment and Work by the Owner.
  - 3. Each Contractor shall cooperate with the Construction Manager in notifying him when the Work is at a stage to require the services of other Contractors and shall notify the Construction Manager in the event that such other Contractors do not carry out their responsibilities in connection with such notification.
- B. Contractors shall cooperate with and assist the Construction Manager in the preparation of construction progress and procedures, schedule of product deliveries, and their effect on the overall project progress and completion. Other Contractors shall cooperate in getting their Work and the Work of their subcontractors completed according to the schedule as prepared and maintained by the Construction Manager. Each Contractor shall immediately notify the Construction Manager of a delay in delivery of products or the scheduled date of completion that may affect the total progress of construction.
- C. The Owner will furnish the topographical survey, either as a part of these Drawings or separately, giving the general topographical lines existing at the site and the property lines.

- D. Contractors required to make connections to existing utilities, especially sewerage where gravity flow occurs, shall verify grades and locations at points of such connections and shall notify the Construction Manager of circumstances which would adversely affect the proper flow or connection to such facilities.

#### **1.05 PRIME CONTRACTORS USE OF PREMISES**

- A. Use of the Site: Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.
  - 1. Owner Occupancy: Allow for Owner occupancy and use by the public.
  - 2. Driveways and Entrances: Keep driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
- B. Use of the Existing Building: Maintain the existing building in a weathertight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period.

#### **1.06 OWNERS RIGHT TO MAINTAIN OPERATIONS**

- B. During the course of this Project, normal and customary functions and operations must be maintained. The Contract Documents are intended to define a strict separation between the school activities of students and staff from the activities of the construction project.
- C. The Construction Manager, Architect, and Owner will not tolerate any visible or audible actions initiated or responded to by any employees of Contractors on this Project toward any students, teachers, or staff members at the school system. Violators shall be promptly removed from the site.
- D. The Owner intends to instruct students, teachers, and staff to refrain from communications with Contractor's personnel working on this Project. All communication with Owner and staff shall be through the Construction Manager.

- E. Contractors must expend their best effort toward protection of the health, safety, and welfare of occupants on the Owner's property during the course of Work on this Project.
- F. Contractors and Subcontractors shall be subject to such rules and regulations for the conduct of the Work as the Owner may establish. Employees shall be properly and completely clothed while working. Bare torsos, legs and feet will not be allowed. Possession or consumption of alcoholic beverages or drugs, tobacco or other noxious behavior on the site is strictly prohibited. Violators shall be promptly removed from the site. Smoking is not permitted on school property or within school buildings.

#### **1.07 OCCUPANCY REQUIREMENTS**

- A. Full Owner Occupancy: The Owner will occupy the site and existing building during the entire construction period, except during defined summer break. Cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Owner's operations.
- B. Partial Owner Occupancy: The Owner reserves the right to occupy and to place and install equipment in completed areas of the building prior to Substantial Completion, provided such occupancy does not interfere with completion of the Work. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.
  - 1. The Construction Manager will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner occupancy.
  - 2. Party which obtained general building permit shall obtain a Certificate of Occupancy from local building officials prior to Owner occupancy.
  - 3. Prior to partial Owner occupancy, mechanical and electrical systems shall be fully operational. Required inspections and tests shall have been successfully completed. Upon occupancy, the Owner will operate and maintain mechanical and electrical systems serving occupied portions of the building.
  - 4. Upon occupancy, the Owner will assume responsibility for maintenance and custodial service for occupied portions of the building.

#### **1.08 WORK BY OWNER**

- A. The Owner intends to complete the following items of Work outside the provisions of these Contract Documents. Contractors shall not restrict or interfere with the Owner's right to the Project to accomplish this Work.
  - 1. Equipment and furniture except as scheduled and specified under Divisions 11 and 12 and shown on the Drawings.
  - 2. Items which may be deleted from Contracts for Work as required by the Contract Documents.

3. Existing school maintenance work.
4. The purchase and supplying of certain materials as noted in the Project Manual.
5. The Owner, under separate contract, shall provide removal of identified asbestos containing materials from the existing structure such as window assemblies, flooring and all other items noted on drawings to be removed by owner. The asbestos report is available through the Construction Manager upon request.
6. Other Items.

#### **1.09 PERMITS, FEES, AND NOTICES**

- A. Bid Category No. 1 General Trades Contractor will secure the general building permit for the Owner. Each Contractor shall secure and pay for other permits, governmental fees, and licenses necessary for the proper execution and completion of the Contractors Work. Fees to relocate utilities on Owner's property shall be included in the bid of the Contractor doing the relocation.
  1. The Owner shall pay for the cost of the Building Permit utilizing the Contractor's Allowance.
  2. State filing fees for plan approval are the responsibility of the Owner and will be paid by the Owner.
- B. Utility Tie-Ins: Shall be arranged with local utility company and other involved parties for minimum interruption of service.
- C. Shutdowns of existing systems shall be limited to minimum time required and scheduled with other involved parties. Provide 2 days written notice of shutdown to Construction Manager and Owner.
- D. Inspections of installed work shall be performed by the governing authority as arranged for by the Contractor. Work shall not be covered until approved.
- E. Each Contractor shall give notices and comply with laws, ordinances, rules, regulations, and orders of public authorities bearing on the performance of his Work. If a Contractor observes that the Contract Documents are at variance therewith, he shall promptly notify the Construction Manager in writing, and necessary changes shall be adjusted by appropriate notification. If a Contractor performs Work knowing it to be contrary to such laws, ordinances, rules, and regulations, and without such notice to the Construction Manager, he shall assume full responsibility therefore and shall bear the costs attributable thereto.

#### **1.10 LABOR AND MATERIALS**

- A. Unless otherwise specifically noted, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper

execution and completion of his Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

- B. Each Contractor shall enforce strict discipline and good order among his employees or other persons carrying out Work of his Contract and shall not permit employment of unfit person or persons or anyone not skilled in the task assigned to them.
- C. Prime Contractors must furnish a letter to the Construction Manager, stating that Contractor shall not assign any of its employees, agents or other individuals to perform any services in the District's facilities or program sites if that individual:
  - 1. Is listed on the Michigan Sex Offender Registry, [www.mipsor.state.mi.us](http://www.mipsor.state.mi.us).
  - 2. Is listed on the Federal Sex Offender Registry [www.nsopw.gov](http://www.nsopw.gov).
  - 3. Has not passed a 5-50 drug screen, testing negative for the following drugs:
    - a. Amphetamines
    - b. Methamphetamines
    - c. Cocaine
    - d. Codeine
    - e. Methadone
    - f. Morphine
    - g. Phencyclidine (PCP)
    - h. Marijuana
- D. ID Stickers will be issued by The Skillman Corporation upon receipt of verification from the Contractor that the employee/subcontractor employee or independent contractor has a satisfactory record to work on the Project. Stickers will be numbered and numbers assigned to each worker to be worn on their hardhat. It is the Contractor's responsibility to maintain a record of contractor's name assigned each number and provide to The Construction Manager upon request.
- E. Consistent with Michigan law, possession or consumption of drugs on school property will promptly be reported to the local police. Consumption of alcoholic beverages or tobacco or other noxious behavior on school owned property is strictly prohibited. Violators shall be promptly removed from the site. Smoking is not permitted on school property or within school buildings.

#### **1.11 CUTTING AND PATCHING**

- A. Refer to Section 01 73 10 – Cutting and Patching, for provisions on this subject.

#### **1.12 VERIFICATIONS OF EXISTING DIMENSIONS**

- A. When verification of existing dimensions is required, the Contractor requiring said verification for the construction or fabrication of his material shall be the Contractor responsible for the procurement of the field information.

### **1.13 PROJECT SECURITY**

- A. Each Prime Contractor shall take all reasonable precautions to prevent injury, damage or loss to people and property in, on and adjacent to the project. This shall include not only their own work or property but that of other contractors and the Owner.
- B. If deemed necessary by The Construction Manager a project wide security program may be developed for the purpose of preventing damage or loss at the project site or property adjacent thereto. Once accepted by the Owner, contractors shall comply.

### **1.14 SCHEDULE OF CONTRACT RESPONSIBILITIES - SCOPE**

- A. Contractors shall submit their proposals based on the work included under each contract area as listed herein. Include Work necessary for a complete project, as shown on the Drawings and called for in the Specifications.
- B. Questions concerning the phasing or "Schedule of Contract Responsibilities" should be directed to the Construction Manager, who will be the interpreter and be responsible for this Schedule of Contract Responsibilities and Contract Breakdown, prior to submitting proposals and during construction.
- C. The requirements of Division 1 are a part of the Work of each and every contract area. The Contractor for any one contract area shall be familiar with the Work and requirements of all other contract areas.
- D. Certain Specification Sections describe Work to be performed under several contract areas. (Example: 06 10 00 - Rough Carpentry.) Provide Work of this nature as required for each contract area whether or not enumerated in the Schedule of Contract Responsibilities.
- E. The following contract areas are broken down by Specifications Section conforming basically to the CSI format.
- F. The Drawings and Specifications as furnished for each of the Contracts is for the convenience of the Contractor in preparing a proposal for this Project. However, each Contractor is responsible to review the complete set of Drawings and Specifications to assure that Work required to be installed to complete his phase of the Work is included in his proposal. This "Schedule of Contract Responsibilities" is a definition of the work as it is to be bid in separate contracts. Where a specific item of Work is not defined, but is normally inherent to a trade, or is included in the scope of the applicable technical revision, it will be the responsibility of that Contractor to include the Work in his proposal.
- G. This "Schedule of Contract Responsibilities" is to aid each Contractor in defining the Scope of Work to be included in his proposal. However, omissions from this "Schedule of Responsibilities" do not relieve the Contractor from including in his

proposal that Work which will be required to complete his Contract. Each Contractor should read the "Schedule of Contract Responsibilities" completely to familiarize himself with the Work of other Contractors that may have Work in adjacent areas and to coordinate the interfacing problems that may occur as the work is assembled and constructed.

- H. Where specific Work is to be completed under a particular phase of the Project and the Work is wholly or partially completed by other trades because of the type of work involved or jurisdictional trade agreements, the Contractor will be responsible to subcontract the Work as necessary to complete the Work included in his Contract. No delay in the Work will be allowed due to the failure of the Contractor to subcontract related work required by jurisdictional trade agreements.

### **1.15 COORDINATION OF WORK**

- A. Each Contractor is responsible to coordinate his Work with the Work of other trades and other Contractors and requirements of the school system. The Contractor must make space allowances for Work of other Contractors, provide necessary openings where indicated or implied by the Drawings and Specifications. Each Contractor is responsible to protect his own Work.

### **1.16 TIME OF COMMENCEMENT AND COMPLETION**

- A. The Contractor shall commence work within ten (10) days after being notified in writing to proceed and shall complete the Work within the time limitations established in the Form of Agreement.
1. It is anticipated that construction will start within **(155)** calendar days after receipt of bids.
  2. Construction shall be complete within **(290)** consecutive calendar days, or earlier, after Notice to Proceed.

### **PART 2 PRODUCTS (Not Used)**

### **PART 3 EXECUTION**

#### **3.01 SCHEDULE OF CONTRACT RESPONSIBILITIES**

#### **3.02 GENERAL REQUIREMENTS**

- A. PROVIDED BY OWNER THROUGH THE CONSTRUCTION MANAGER
- |         |           |                                   |
|---------|-----------|-----------------------------------|
| Section | 01 32 00  | Schedules and Reports             |
| Section | 01 45 10  | Testing Laboratory Services       |
| Section | 01 45 00S | Masonry Inspection Report         |
| Section | 01 45 10  | Testing Laboratory Services       |
| Section | 01 59 10  | Project Office                    |
| Section | 01 51 60  | Temporary Sanitary Facilities     |
| Section | 01 52 60  | Rubbish Container (As applicable) |

|         |          |                                |
|---------|----------|--------------------------------|
| Section | 01 53 10 | Fences (Temporary Security)    |
| Section | 01 55 00 | Access Roads and Parking Areas |
| Section | 01 57 60 | Project Signs                  |
| Section | 01 71 50 | Final Cleaning                 |

**B. PROVIDED BY ALL CONTRACTORS AS APPLICABLE**

|         |          |                                  |
|---------|----------|----------------------------------|
| Section | 01 12 00 | Multiple Contract Summary        |
| Section | 01 23 00 | Alternates                       |
| Section | 01 25 00 | Contract Modification Procedures |
| Section | 01 28 00 | Schedule of Values               |
| Section | 01 29 00 | Applications for Payment         |
| Section | 01 31 00 | Project Meetings                 |
| Section | 01 32 00 | Schedules and Reports            |
| Section | 01 33 00 | Submittal Procedures             |
| Section | 01 45 10 | Testing Laboratory Services      |
| Section | 01 50 50 | Temporary Facilities             |
| Section | 01 56 90 | Housekeeping and Safety          |
| Section | 01 59 20 | Offices and Sheds                |
| Section | 01 60 00 | Product Requirements             |
| Section | 01 72 50 | Work Layout                      |
| Section | 01 73 10 | Cutting and Patching             |
| Section | 01 77 00 | Contract Closeout                |

All contractors are required to subscribe to PlanGrid for use on this project. Number of users is up to the contractor, however, at a minimum your site personnel will be required to use this product to facilitate communication. PlanGrid will be used for construction documentation, addenda, ASI, As Built Conditions, QA/QC, and Punch List. Visit the [www.PlanGrid.com](http://www.PlanGrid.com) to determine subscription pricing. It is recommended that you have an office administrator to assist your field personnel. PlanGrid is a tool for the construction phase and will not be used for bidding. Visit [www.skillmanplanroom.com](http://www.skillmanplanroom.com) for bid documents.

**C. PROVIDED BY DESIGNATED CONTRACTORS**

|         |          |   |
|---------|----------|---|
| Section | 01 21 00 | Allowances  |
| Section | 01 51 10 | Temporary Electricity, Lighting and Warning Systems |
| Section | 01 51 30 | Temporary Heating, Ventilation and Cooling          |
| Section | 01 51 50 | Temporary Water                                     |
| Section | 01 51 80 | Temporary Fire Protection                           |
| Section | 01 52 10 | Construction Aids and Temporary Enclosures          |
| Section | 01 53 20 | Tree and Plant Protection                           |
| Section | 01 53 30 | Barricades  |
| Section | 01 56 20 | Dust Control  |
| Section | 01 56 30 | Water Control                                       |
| Section | 01 56 80 | Erosion Control                                     |
| Section | 01 72 00 | Field Engineering                                   |
| Section | 01 73 10 | Cutting and Patching                                |

### 3.03 **BID CATEGORIES**

#### A. **BID CATEGORY NO. 1 – General Trades**

General Requirements in Paragraph 3.02.B above.

|                    |                     |  |
|--------------------|---------------------|--|
| Section            | 01 21 00            | Allowances   |
| Section            | 01 50 50            | Temporary Facilities and Controls                  |
| Section            | 01 51 80            | Temporary Fire Protection                          |
| Section            | 01 52 10            | Construction Aids and Temporary Enclosures         |
| Section            | 01 52 60            | Rubbish Container (As applicable)                  |
| Section            | 01 53 20            | Tree and Plant Protection                          |
| Section            | 01 53 30            | Barricades   |
| Section            | 01 56 20            | Dust Control                                       |
| Section            | 01 56 30            | Water Control                                      |
| Section            | 01 56 80            | Erosion Control                                    |
| Section            | 01 72 00            | Field Engineering                                  |
| Section            | 01 73 10            | Cutting and Patching                               |
| Section            | 02 41 19            | Selective Structure Demolition                     |
| Section            | 03 30 00            | Cast-in-Place Concrete                             |
| Section            | 03 60 00            | Post Installed Anchors                             |
| Section            | 04 20 00            | Unit Masonry                                       |
| Section            | 05 31 00            | Steel Decking                                      |
| Section            | 05 50 00            | Metal Fabrications                                 |
| Section            | 06 10 00            | Rough Carpentry                                    |
| Section            | 06 16 00            | Sheathing  |
| Section            | 06 46 00            | Wood Trim  |
| Section            | 07 19 00            | Water Repellants                                   |
| Section            | 07 21 00            | Thermal Insulation                                 |
| Section            | 07 51 13            | Built-Up Asphalt Roofing                           |
| Section            | 07 53 23            | Ethylene-Propylene-Diene-Monomer (EPDM)<br>Roofing |
| Section            | 07 71 00            | Roof Specialties                                   |
| Section            | 07 84 13            | Penetration Fire Stopping                          |
| Section            | 07 92 00            | Joint Sealants                                     |
| Section            | 08 11 13            | Hollow Metal Doors and Frames                      |
| Section            | 08 71 00            | Door Hardware                                      |
| <del>Section</del> | <del>08 90 00</del> | <del>Louvers and Vents</del>                       |
| Section            | 09 91 13            | Exterior Painting                                  |
| Section            | 09 91 23            | Interior Painting                                  |
| Section            | 31 10 00            | Site Clearing                                      |
| Section            | 31 20 00            | Earth Moving                                       |
| Section            | 32 32 23            | Segmental Retaining Walls                          |
| Section            | 32 92 00            | Turf and Grasses                                   |
| Section            | 32 93 00            | Plants   |

#### **General Trades Clarifications:**

1. Bid Category No. 1 – General Trades will provide all plywood sheathing as mentioned in section 06 16 00 Sheathing Part 2.1 and 2.2. Part 2.3 Wall and

Soffit Sheathing will be provided by Bid Category No. 2 Metal-Studs, Drywall and Acoustical Ceilings contractor.

2. Aluminum sill pan flashing and aluminum drip associated with louvers to be provided by Bid Category No. 7 – Metal Wall Panels and Louvers contractor.
3. Rigid tapered insulation at canopies to be provided and installed by Bid Category No. 1 – General Trades contractor. All other insulation such as Mineral Wool to be provided by Bid Category No. 2 Metal-Studs, Drywall and Acoustical Ceilings contractor.
4. Bid Category No. 1 – General Trades will provide all wood blocking except for Metal Panel System. Wood blocking shown in detail 1A on Sheet A321 will be provided by Bid Category No. 2 Metal Studs, Drywall and Acoustical Ceilings.
5. General Trades contractor will provide temporary enclosures per specification section 01 52 10 at all window systems after at each window opening.
6. General Trades contractor per specification section 01 50 50 Temporary Facilities and Controls, will provide and maintain Barricades for protection of all people and property of all trades, including fall protection at roofs, warning signs, etc. throughout the duration of project.

**B. BID CATEGORY NO. 2 – Metal Studs, Drywall and Acoustical Ceilings**

|                    |                        |   |
|--------------------|------------------------|---|
| Section            | 01 21 00               | Allowances  |
| Section            | 01 52 60               | Rubbish Container (As applicable)                           |
| Section            | 05 40 00               | Cold-Formed Metal Framing                                   |
| Section            | 06 10 00               | Rough Carpentry   |
| Section            | 06 16 00               | Sheathing   |
| Section            | 07 21 00               | Thermal Insulation  |
| Section            | 07 24 13               | Polymer-Based Exterior Insulation and Finish Systems (EIFS) |
| Section            | 07 27 26               | Fluid-Applied Membrane Air Barriers                         |
| <del>Section</del> | <del>07 42 13.19</del> | <del>Insulated Metal Wall Panels</del>                      |
| <del>Section</del> | <del>07 42 13.23</del> | <del>Metal Composite Material Wall Panels</del>             |
| Section            | 07 84 13               | Penetration Fire Stopping                                   |
| Section            | 07 92 00               | Joint Sealants  |
| Section            | 09 26 13               | Gypsum Veneer Plastering                                    |
| Section            | 09 29 00               | Gypsum Board  |
| Section            | 09 51 13               | Acoustical Panel Ceilings                                   |

**Metal-Studs, Drywall and Acoustical Ceilings Clarifications:**

1. Bid Category No. 1 – General Trades will provide all plywood sheathing as mentioned in section 06 16 00 Sheathing Part 2.1 and 2.2. Part 2.3 Wall and Soffit Sheathing will be provided by Bid Category No. 2 Metal-Studs, Drywall and Acoustical Ceilings contractor.
2. Rigid tapered insulation at canopies to be provided and installed by Bid Category No. 1 – General Trades contractor. All other insulation such as Mineral Wool to be provided by Bid Category No. 2 Metal-Studs, Drywall and Acoustical Ceilings contractor.

3. Bid Category No. 1 – General Trades will provide all wood blocking except for Metal Wall Panel System. Wood blocking shown in typical detail 1A on Sheet A321 will be provided by Bid Category No. 2 Metal Studs, Drywall and Acoustical Ceilings.

C. BID CATEGORY NO. 3 – Aluminum and Glazing

General Requirements in Paragraph 3.02.B above.

|         |          |   |
|---------|----------|---|
| Section | 01 21 00 | Allowances                                |
| Section | 07 92 00 | Joint Sealants                            |
| Section | 08 41 13 | Aluminum-Framed Entrances and Storefronts |
| Section | 08 44 13 | Glazed Aluminum Curtain Walls             |
| Section | 08 71 00 | Door Hardware                             |
| Section | 08 80 00 | Glazing                                   |

D. BID CATEGORY NO. 4 – Flooring

General Requirements in Paragraph 3.02.B above.

|                    |                     |  |
|--------------------|---------------------|--|
| Section            | 01 21 00            | Allowances                                   |
| Section            | 07 92 00            | Joint Sealants                               |
| Section            | 09 30 00            | Tiling                                       |
| Section            | 09 65 00            | Resilient Flooring                           |
| <del>Section</del> | <del>09 66 13</del> | <del>Portland Cement Terrazzo Flooring</del> |
| Section            | 09 68 13            | Tile Carpeting                               |
| Section            | 09 68 16            | Sheet Carpeting                              |

Flooring clarification:

1. Base bid must be \$0, all costs associated with flooring scope of work will be part of Alternate No. 2. Cost including but not limited to Allowance amounts, overhead-profit, bonds, insurance, mobilization, meetings, cleanup, etc.

E. BID CATEGORY NO. 5 – Mechanical

General Requirements in Paragraph 3.02.B above.

|         |          |  |
|---------|----------|--|
| Section | 01 21 00 | Allowances   |
| Section | 01 51 30 | Temporary Heating, Ventilation and Cooling             |
| Section | 01 51 50 | Temporary Water  |
| Section | 02 41 19 | Selective Structure Demolition                         |
| Section | 07 84 13 | Penetration Fire Stopping                              |
| Section | 07 92 00 | Joint Sealants   |
| Section | 22 05 00 | Common Work Results for Plumbing                       |
| Section | 22 05 19 | Meters and Gages for Plumbing Piping                   |
| Section | 22 05 23 | General Duty Valves for Plumbing Piping                |
| Section | 22 05 29 | Hangers and Supports for plumbing Piping and Equipment |

|         |          |  |
|---------|----------|--|
| Section | 22 05 53 | Identification for Plumbing Piping and Equipment   |
| Section | 22 07 00 | Plumbing Insulation                                |
| Section | 22 11 16 | Domestic Water Piping                              |
| Section | 22 11 19 | Domestic Water Piping Specialties                  |
| Section | 22 31 00 | Domestic Water Softeners                           |
| Section | 23 05 00 | Common Work Results for HVAC                       |
| Section | 23 05 13 | Common Motor Requirements for HVAC Equipment       |
| Section | 23 05 19 | Meters and Gauges for HVAC Piping                  |
| Section | 23 05 23 | General Duty Valves for HVAC Piping                |
| Section | 23 05 29 | Hangers and Supports for HVAC Piping and Equipment |
| Section | 23 05 53 | Identification for HVAC Piping and Equipment       |
| Section | 23 05 93 | Testing, Adjusting, and Balancing for HVAC         |
| Section | 23 07 00 | HVAC Insulation                                    |
| Section | 23 08 00 | Commissioning of HVAC                              |
| Section | 23 09 00 | Instrumentation and Control for HVAC               |
| Section | 23 11 23 | Facility Natural Gas Piping                        |
| Section | 23 21 13 | Hydronic Piping                                    |
| Section | 23 21 23 | Hydronic Pumps                                     |
| Section | 23 23 00 | Refrigerant Piping                                 |
| Section | 23 25 00 | HVAC Water Treatment                               |
| Section | 23 31 13 | Metal Ducts  |
| Section | 23 31 15 | HVAC Air-Distribution System Cleaning              |
| Section | 23 33 00 | Air Duct Accessories                               |
| Section | 23 34 16 | Centrifugal HVAC Fans                              |
| Section | 23 34 23 | HVAC Power Ventilators                             |
| Section | 23 36 00 | Air Terminal Units                                 |
| Section | 23 37 13 | Diffusers, Registers, and Grilles                  |
| Section | 23 51 00 | Breechings, Chimneys, and Stacks                   |
| Section | 23 52 33 | Water Tube Boilers                                 |
| Section | 23 62 00 | Packaged Compressor and Condenser Units            |
| Section | 23 73 13 | Modular Indoor Central Station Air Handling Units  |
| Section | 23 82 39 | Unit Heaters                                       |

F. BID CATEGORY NO. 6 – Electrical

General Requirements in Paragraph 3.02.B above.

|         |          |  |
|---------|----------|--|
| Section | 01 21 00 | Allowances   |
| Section | 01 51 10 | Temporary Electricity, Lighting, and Warning Systems |
| Section | 02 41 19 | Selective Structure Demolition                       |
| Section | 07 84 13 | Penetration Fire Stopping                            |
| Section | 07 92 00 | Joint Sealants                                       |
| Section | 10 14 63 | Electronic Message Signage                           |
| Section | 26 05 00 | Common Work Results for Electrical                   |

|         |             |  |
|---------|-------------|--|
| Section | 26 05 19    | Low-Voltage Electrical Power Conductors and Cables                                 |
| Section | 26 05 26    | Grounding and Bonding for Electrical Systems                                       |
| Section | 26 05 29    | Hangers and Supports for Electrical Systems  |
| Section | 26 05 33    | Raceways and Boxes for Electrical Systems  |
| Section | 26 05 44    | Sleeves and Sleeve Seals for Electrical Raceways and Cabling                       |
| Section | 26 05 53    | Identification for Electrical Systems  |
| Section | 26 09 23    | Lighting Control Devices   |
| Section | 26 09 43    | Network Lighting Controls  |
| Section | 26 24 16    | Panelboards  |
| Section | 26 27 26    | Wiring Devices   |
| Section | 26 29 23    | Variable Frequency Motor Controllers   |
| Section | 26 51 00    | Interior Lighting  |
| Section | 27 05 28    | Pathways for Communications Systems  |
| Section | 27 05 53    | Identification for Communications Systems  |
| Section | 27 11 16.50 | Aisle Containment System   |
| Section | 27 15 13    | Communications Copper Horizontal Cabling   |
| Section | 27 17 00    | Testing, Identification and Administration of Balanced Twisted Pair Infrastructure |
| Section | 27 41 16    | Technology Equipment   |
| Section | 28 20 00    | Video Surveillance   |
| Section | 28 31 00    | Fire Detection and Alarm   |

**G. BID CATEGORY NO. 7 – Metal Wall Panels and Louvers**

General Requirements in Paragraph 3.02.B above.

|         |             |                                      |
|---------|-------------|--------------------------------------|
| Section | 07 92 00    | Joint Sealants                       |
| Section | 07 42 13.19 | Insulated Metal Wall Panels          |
| Section | 07 42 13.23 | Metal Composite Material Wall Panels |
| Section | 08 90 00    | Louvers and Vents                    |

**Metal Wall Panels and Louvers clarifications:**

1. Aluminum sill pan flashing and aluminum drip associated with louvers to be provided by Bid Category No. 7 – Metal Wall Panels and Louvers contractor.

END OF SECTION 01 12 00

**KPS - Administration Building Remodeling RFI Log - May 26th, 2020**

| RFI # | Company Submitting RFI                    | RFI Description  | RFI Response   |
|-------|---|--|--|
| 1     | Schweitzer Inc. (Terry O)                 | Opening 001 is listed on the Door Schedule as Hollow Metal Door and Frame. No specifications have been included for Hollow Metal. Please provide specifications as soon as possible  | Hollow metal spec will be issued as part of Addendum 2.<br>Lee Dingemans 5/19/2020   |
| 2     | Kalamazoo Mechanical (Mary T) A-1 (Ken P) | Please provide specification for duct insulation, application, type, thickness, etc.   | Will be answered as part of Addendum 2.<br>Lee Dingemans 5/19/2020   |
| 3     | Buist Electric (Issac M)                  | VCS will not install a sign mounted to the CMU brick that they have shown. It needs to be a solid pour concrete base. CMU is too unreliable for support- there is too much of a change that the mortar is not strong enough to hold the sign posts in cases of high winds/over time. If you can find out if they will change to a solid pour, then I can for sure get you numbers. | Aluminum Columns go down to base plate at foundation wall. Base plates shall be 3/4"x10"x1'-2" w/ (4) galvanized 5/8"Ø anchor rods cast-in to foundation wall. Anchor rods shall be embedded 9" minimum into foundation wall.<br>Ryan Eversole 5/20/2020 |
| 4     |   |  |  |
| 5     |   |  |  |
| 6     |   |  |  |
| 7     |   |  |  |
| 8     |   |  |  |
| 9     |   |  |  |
| 10    |   |  |  |
| 11    |   |  |  |
| 12    |   |  |  |
| 13    |   |  |  |
| 14    |   |  |  |

## ADDENDUM NO. 2

**DATE OF ISSUANCE:** May 21, 2020  
**PROJECT:** KPS Administrative Building Remodeling  
1220 Howard Street  
Kalamazoo, MI 49008

**OWNER:** Kalamazoo Public Schools  
**ARCHITECT'S PROJECT NO.:** 18-525.00 KPS Administrative Building Remodeling

**ORIGINAL CONTRACT DATE:** March 10, 2020

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### SCOPE OF WORK

This Addendum includes changes to, or clarifications of, the original Bidding Documents and any previously issued addenda, and shall be included in the Bid. All of these Addendum items form a part of the Contract Documents. The Bidder shall acknowledge receipt of this Addendum in the appropriate space provided on the Bid Form. Failure to do so may result in disqualification of the Bid.

### DOCUMENTS INCLUDED IN THIS ADDENDUM

This Addendum includes **Three [3]** pages of text and the following documents:

Bidding Documents: **None**  
Contract Conditions: **None**  
Specification Sections: **08 1113**  
Sketches: **None**  
Drawings: **None.**

### CHANGES TO PREVIOUSLY ISSUED ADDENDA

None.

### CHANGES TO BIDDING REQUIREMENTS

None.

### CHANGES TO CONTRACT CONDITIONS

None.

**CHANGES TO SPECIFICATIONS**

**ADD-2 Item No. S-1 - 08 1113 – Hollow Metal Doors and Frames**

Refer to attached added Specification Section 08 1113 "Hollow Metal Doors and Frames" for requirements for hollow metal doors and frames.

**ADD-2 Item No. S-2 - 08 4113 – Aluminum-Framed Entrances and Storefronts**

Refer to Specification Section 08 4113 "Aluminum-Framed Entrances and Storefronts." Omit subparagraph 2.5-B-1-b.

**ADD-2 Item No. S-3 - 23 0700 HVAC Insulation**

Refer to previously issued Specification Section 23 0700 HVAC Insulation. The following section was added "3.12 Indoor Duct and Plenum Insulation Schedule".

**3.12 INDOOR DUCT AND PLENUM INSULATION SCHEDULE**

- A. Concealed supply and return air duct and plenum insulation shall be the following:
  - 1. Mineral-Fiber Blanket: 1-1/2 inches[38 mm] thick and 0.75-lb/cu. ft.[12-kg/cu. m] nominal density.
- B. Concealed exhaust-air duct and plenum insulation between isolation damper and penetration of building exterior shall be the following:
  - 1. Mineral-Fiber Blanket: 1-1/2 inches[38 mm] thick and 0.75-lb/cu. ft.[12-kg/cu. m] nominal density.
- C. Exposed outside, relief, supply and return air duct insulation within mechanical and storage rooms shall be the following:
  - 1. Mineral-Fiber Board with FSK Jacket (For Rectangular Applications): 1-1/2 inches[38 mm] thick and 3-lb/cu. ft.[48-kg/cu. m] nominal density.
  - 2. Mineral-Fiber Duct, Pipe and Tank with FSK Jacket (For Round or Flat Oval Duct Applications): 1-1/2 inches[38 mm] thick.
- D. Exposed exhaust-air duct insulation within mechanical rooms between isolation damper and penetration of building exterior shall be the following:
  - 1. Mineral-Fiber Board with FSK Jacket (For Rectangular Applications): 1-1/2 inches[38 mm] thick and 3-lb/cu. ft.[48-kg/cu. m] nominal density.

2. Mineral-Fiber Duct, Pipe and Tank with FSK Jacket [For Round Duct Applications]: 1-1/2 inches[38 mm] thick.
- E. Exposed supply and return air duct insulation exposed in finished spaces shall be the following:
1. Mineral-Fiber Board with ASJ [For Rectangular Applications]: 1-1/2 inches[38 mm] thick and 3-lb/cu. ft.[48-kg/cu. m] nominal density.
  2. Mineral-Fiber Duct, Pipe and Tank with ASJ [For Round or Flat Oval Duct Applications]: 1-1/2 inches[38 mm] thick.

**ADD-2 Item No. S-4 - 01 3300 – Submittal Procedures**

Refer to previously issued Specification Section 01 3300 Submittal Procedures:

The sub-section 1.4.1 has been revised as follows. "Architect's copyright protected CAD drawings are available strictly for the use of preparing shop drawings, in AutoCAD version 2009 format. Architect will furnish files electronically by email after CADD File Transfer Waiver form [see spec section 00 6323] has been completed and returned to Architect."

**CHANGES TO DRAWINGS**

**ADD-2 Item No. D-1 - Marquee Sign Structure Clarification**

Refer to previously issued drawing A325 [not reissued]: Detail 2/A325 add base plate and anchorage information as follows. Base plate and anchorage shall be a 3/4"x10"x1'-2" base plate, with (4) 5/8"Ø galvanized anchors, embedded 9" into the concrete. Aluminum columns go down to baseplate at top of foundation wall.

**END OF ADDENDUM.**

## SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes standard hollow metal doors and frames.
- B. Related Sections:
  - 1. Division 04 Section "Unit Masonry" for embedding anchors for hollow metal work into masonry construction.
  - 2. Division 08 Section "Door Hardware" for door hardware for hollow metal doors.
  - 3. Division 09 Section "Interior Painting" for field painting hollow metal doors and frames.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Include elevations, door edge details, frame profiles, metal thicknesses, preparations for hardware, and other details.
- C. Schedule: Prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings.

#### 1.3 QUALITY ASSURANCE

- A. Source Limitations: Obtain hollow metal work from single source from single manufacturer.
- B. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.
- C. Smoke-Control Door Assemblies: Comply with NFPA 105 or UL 1784.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver hollow metal work palletized, wrapped, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic.
  - 1. Provide additional protection to prevent damage to finish of 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 under cover at Project site. Place in stacks of five units maximum in a vertical position with heads up, spaced by blocking, on minimum 4-inch-(102-mm-) high wood blocking. Do not store in a manner that traps excess humidity.
  - 1. Provide minimum 1/4-inch(6-mm) space between each stacked door to permit air circulation.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Amweld Building Products, LLC.
  - 2. Ceco Door Products; an Assa Abloy Group company.
  - 3. Curries Company; an Assa Abloy Group company.
  - 4. Steelcraft; an Ingersoll-Rand company.

### **2.2 MATERIALS**

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, CS, Type B; suitable for exposed applications.
- B. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, CS, Type B.
- C. Frame Anchors: ASTM A 591/A 591M, Commercial Steel (CS), 40Z(12G) 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.
- D. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.
- E. Powder-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.
- F. Grout: ASTM C 476, except with a maximum slump of 4 inches(102 mm), as measured according to ASTM C 143/C 143M.
- G. Glazing: Division 08 Section "Glazing."
- H. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil(0.4-mm) dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

### **2.3 STANDARD HOLLOW METAL DOORS**

- A. General: Comply with ANSI/SDI A250.8.

## **Addendum No. 2**

1. Design: Flush panel.
  2. Core Construction: Manufacturer's standard kraft-paper honeycomb, polystyrene, polyurethane, polyisocyanurate, mineral-board, or vertical steel-stiffener core.
    - a. Fire Door Core: As required to provide fire-protection ratings indicated.
  3. Vertical Edges for Single-Acting Doors: Beveled edge, 1/8 inch in 2 inches(3 mm in 50 mm).
  4. Top and Bottom Edges: Closed with flush or inverted 0.042-inch-(1.0-mm-) thick, end closures or channels of same material as face sheets.
  5. Tolerances: SDI 117, "Manufacturing Tolerances for Standard Steel Doors and Frames."
- B. Interior Doors: Face sheets fabricated from cold-rolled steel sheet unless metallic-coated sheet is indicated. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
1. Level 2 and Physical Performance Level B (Heavy Duty), Model 1 (Full Flush).
- C. Hardware Reinforcement: ANSI/SDI A250.6.

## **2.4 STANDARD HOLLOW METAL FRAMES**

- A. General: Comply with ANSI/SDI A250.8.
- B. Interior Frames: Fabricated from cold-rolled steel sheet unless metallic-coated sheet is indicated.
1. Fabricate frames as face welded unless otherwise indicated.
  2. Frames for Level 2 Steel Doors: 0.053-inch-(1.3-mm-) thick steel sheet.
  3. Frames for Wood Doors: 0.053-inch-(1.3-mm-) thick steel sheet.
  4. Frames for Borrowed Lights: 0.053-inch-(1.3-mm-) thick steel sheet.
- C. Hardware Reinforcement: ANSI/SDI A250.6.

## **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(1.0 mm) thick, with corrugated or perforated straps not less than 2 inches(50 mm) wide by 10 inches(250 mm) long; or wire anchors not less than 0.177 inch(4.5 mm) thick.
  2. Postinstalled Expansion Type for In-Place Concrete or Masonry: Minimum 3/8-inch-(9.5-mm-) 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, not less than 0.042 inch(1.0 mm) thick, and as follows:
1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.

**2.6 STOPS AND MOLDINGS**

- A. Moldings for Glazed Lites in Doors: Minimum 0.032 inch(0.8 mm) thick, same material as door face sheet.
- B. Fixed Frame Moldings: Formed integral with hollow metal frames, a minimum of 5/8 inch(16 mm) high unless otherwise indicated.
- C. Loose Stops for Glazed Lites in Frames: Minimum 0.032 inch(0.8 mm) thick, same material as frames.

**2.7 ACCESSORIES**

- A. Mullions and Transom Bars: Join to adjacent members by welding or rigid mechanical anchors.
- B. Ceiling Struts: Minimum 1/4-inch-thick by 1-inch-(6.4-mm-thick by 25.4-mm-) wide steel.
- C. Grout Guards: Formed from same material as frames, not less than 0.016 inch(0.4 mm) thick.

**2.8 FABRICATION**

- A. Tolerances: Fabricate hollow metal work to tolerances indicated in SDI 117.
- B. Hollow Metal Doors:
  - 1. Glazed Lites: Factory cut openings in doors.
  - 2. Astragals: Provide overlapping astragal on one leaf of pairs of doors where required by NFPA 80 for fire-performance rating or where indicated.
- C. Hollow Metal Frames: Where frames are fabricated in sections, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
  - 1. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible.
  - 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 bottom of jambs and mullions with at least four spot welds per anchor.
  - 5. Jamb Anchors: Provide number and spacing of anchors as follows:
    - a. Masonry Type: Locate anchors not more than 18 inches(457 mm) from top and bottom of frame. Space anchors not more than 32 inches(813 mm) o.c. and as follows:
      - 1) Two anchors per jamb up to 60 inches(1524 mm) high.
      - 2) Three anchors per jamb from 60 to 90 inches(1524 to 2286 mm) high.
      - 3) Four anchors per jamb from 90 to 120 inches(2286 to 3048 mm) high.
      - 4) Four anchors per jamb plus 1 additional anchor per jamb for each 24 inches(610 mm) or fraction thereof above 120 inches(3048 mm) high.

- b. Postinstalled Expansion Type: Locate anchors not more than 6 inches(152 mm) from top and bottom of frame. Space anchors not more than 26 inches(660 mm) o.c.
  - 6. Door Silencers: Except on weather-stripped doors, drill stops to receive door silencers.
    - a. Single-Door Frames: Three door silencers.
    - b. Double-Door Frames: Two door silencers.
- D. Hardware Preparation: Factory prepare hollow metal work to receive templated mortised hardware according to the Door Hardware Schedule and templates furnished as specified in Division 08 Section "Door Hardware."
  - 1. Locate hardware as indicated, or if not indicated, according to ANSI/SDI A250.8.
  - 2. Reinforce doors and frames to receive nontemplated, mortised and surface-mounted door hardware.
  - 3. Comply with applicable requirements in ANSI/SDI A250.6 and ANSI/DHI A115 Series specifications for preparation of hollow metal work for hardware.

## **2.9 STEEL FINISHES**

- A. Prime Finish: Apply manufacturer's standard primer immediately after cleaning and pretreating.
  - 1. Shop Primer: ANSI/SDI A250.10.

## **PART 3 - EXECUTION**

### **3.1 INSTALLATION**

- A. Hollow Metal Frames: Comply with ANSI/SDI A250.11.
  - 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-protection-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 glazing 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 plumbness, squareness, 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 are 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.
    - a. Floor anchors may be set with powder-actuated fasteners instead of postinstalled expansion anchors if so indicated and approved on Shop Drawings.
  3. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout.
  4. Concrete Walls: Solidly fill space between frames and concrete with grout. Take precautions, including bracing frames, to ensure that frames are not deformed or damaged by grout forces.
  5. 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.
  6. 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(1.6 mm), measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
    - b. Alignment: Plus or minus 1/16 inch(1.6 mm), measured at jambs on a horizontal line parallel to plane of wall.
    - c. Twist: Plus or minus 1/16 inch(1.6 mm), measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
    - d. Plumbness: Plus or minus 1/16 inch(1.6 mm), measured at jambs at floor.
- B. Hollow Metal Doors: Fit hollow metal doors accurately in frames, within clearances specified below. Shim as necessary.
1. Non-Fire-Rated Standard Steel Doors:
    - a. Jambs and Head: 1/8 inch(3 mm) plus or minus 1/16 inch(1.6 mm).
    - b. Between Edges of Pairs of Doors: 1/8 inch(3 mm) plus or minus 1/16 inch(1.6 mm).
    - c. Between Bottom of Door and Top of Threshold: Maximum 3/8 inch(9.5 mm).
    - d. Between Bottom of Door and Top of Finish Floor (No Threshold): Maximum 3/4 inch(19 mm).
  2. Fire-Rated Doors: Install doors with clearances according to NFPA 80.
  3. Smoke-Control Doors: Install doors according to NFPA 105.

### **3.2 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. 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.

**END OF SECTION 08 1113**