# **Addendum**



**DATE:** 11/26/2025 615 Woodside Drive, Englewood, Ohio 45322 T 937.836.8898 F 937.832.3696

www.app-arch.com

**PROJECT:** Office Renovation and Addition for

City of Huber Heights Tax, Finance & Water Departments

**PROJECT ADDRESS:** 6131 Taylorsville Road, Huber Heights, OH 45424

# **ADDENDUM NO. 1**

RECEIPT OF THIS ADDENDUM MUST BE NOTED ON THE FORM OF PROPOSAL

# **TO ALL BIDDERS:**

This addendum supplements and amends the original Plans and Specifications and shall be taken into account in preparing proposals and shall become part of the Contract Documents.

# **CLARIFICATIONS:**

Q1 Does the customer have an existing Access Control System? If yes, please specify what the existing system is.

A1 The city will be installing a new access control system which is Lenel S2.

#### **SPECIFICATIONS:**

ITEM AS1: 07 5300 ELASTOMERIC MEMBRANE ROOFING (EPDM)

- 1. Delete Section 2.04 DECK SHEATHING as product is not required for the project.
- 2. Section 2.05 INSULATION. Add the following to part 2.05, A. '6. Polyisocyanurate (ISO) Board Insulation shall pass UL 1256 fire tests.'

ITEM AS2: 08 1113 HOLLOW METAL DOORS AND FRAMES

1. Specification missing from FOR CONSTRUCTION set. Refer to attached specification.

ITEM AS3: 08 7100 DOOR HARDWARE

- Section 3.08 DOOR HARDWARE SETS
  - a. Set 10.0, delete doors 110 & 118 from set.
  - b. Set 12.0, door 117EX Add exit device designation: 'RM370 Mtg-Type 12XHD US32D RO'

ITEM AS4: 10 1423 PANEL SIGNAGE

1. Section 2.01.A – Add Columbus Graphics to list of approved manufacturers.

### **GENERAL DRAWINGS:**

ITEM G1 DRAWING, G.02

1. Required security fencing, contractor parking and staging areas added to site coordination plan.

# **ELECTRICAL DRAWINGS:**

ITEM E1 DRAWING, E1.1

Add coded note 9 for relocation of fire alarm remote annunciator.

ITEM E2 DRAWING, E2.1

1. Modify light fixture tags, change Stair light fixtures to C1 there is no D1 fixture. Add label REM to fixture on north entry.

ITEM E3 DRAWING, E2.2

 Modify light fixture tags, change Stair light fixtures to C1 there is no D1 fixture.

ITEM E5 DRAWING, E4.1

1. Add coded notes 2 and 3 showing location of relocated fire alarm remote annunciator and showing duct smoke detector in mech. room.

2. Add 4" empty conduit from first floor Elec / IT room west and up into 2<sup>nd</sup> floor IT room.

ITEM E6 DRAWING, E4.2

1. Add coded note #4 indicating location of new 4" conduit into IT room.

# **END OF ADDENDUM NO. 1**

**ATTACHMENTS:** Pre-Bid Meeting Notes and Sign-In Sheets

**Specifications** 

08 1113 - HOLLOW METAL DOORS AND FRAMES

Drawing sheets

G0.2

E1.1

E2.1

E2.2

E4.1

E4.2

# **Pre-Bid Meeting Agenda**



615 Woodside Drive, Englewood, Ohio 45322 T 937.836.8898 F 937.832.3696

www.app-arch.com

**DATE:** November 20, 2025

**PROJECT:** Office Renovation and Addition for

City of Huber Heights Tax, Finance & Water Departments

6131 Taylorsville Road, Huber Heights, OH 45424

## **SIGN-IN & INTRODUCTIONS:**

Jim Bell - City of Huber Heights, Director of Finance Rachael Dillahunt - City of Huber Heights, Administrative Assistant Doug Williams - App Architecture, Project Manager Kumar Alayappan - App Architecture, Construction Administration

Project Team (not in attendance)

Alex Zaharieff - City of Huber Heights, Assistant City Manager Michael George - The Kleingers Group, Civil Engineer and Landscape Jon Reis - L2 Engineering, Structural Engineer Jeff Zelinski - Nauman and Zelinski, Mech, Elec and Plumbing Engineer

### **GENERAL SCOPE OF PROJECT:**

- Approximately 9,864 SF renovation and 1,478 SF of additions
- The Project shall be completed in two phases with the building being partially occupied throughout construction.
  - Phase 1 level one renovation and additions
  - Phase 2 second floor renovation
  - Refer to phasing notes on drawing G0.1
- Single Prime Contract covering all disciplines of Work
- Alternate No. 1 Masonry and metal louver screen wall at mechanical enclosure in lieu of metal louver only.
- \$150,000 Owner Contingency Allowance for Owner's use for unforeseen conditions
- 5 Unit price items related to site preparation and soil conditions

### **BID REQUIREMENTS:**

- Bid due date Thursday, December 18, 2025; 1:00 pm.
- Bids are to be submitted in-person at 6151 Brandt Pike, Huber Heights,
   Ohio at the new Governance Center.
- Use bid forms provided in the Project Manual.
- Required forms are listed in the Instructions to Bidders
- Bid Bond of (10%) is required.
- Performance and Payment Bond (100%) required. Cost to be included in bid and listed separately on bid form. Only the awarded contractor shall provide Performance and Payment Bond.
- All work is Prevailing Wage as established by Ohio Department of Commerce.

- Last day for substitution requests 1:00 pm on December 4<sup>th</sup>.
- Last day for project related questions 1:00 pm on December 8<sup>th</sup>.
- Submission dates for substitutions and questions are firm.
- Submit questions by email to Doug Williams at <u>doug.williams@app-arch.com</u>
- Documents are available to download. Submit request to <u>bids@app-arch.com</u>
- All necessary clarifications will be made by Addendum.
- AIA 305 Contractor's Qualification Statement is required to be submitted with your bids.

# **OWNER COMMENTS:**

- GC to obtain all permits at no cost to the Owner.
- Owner is sales tax exempt.
- Expected Schedule
  - City expects to award by early January
  - o Project Duration City anticipates 13 months for construction
  - o Approximately 8 months for Phase 1
  - o Approximately 5 months for Phase 2

### **TEMPORARY FACILITIES:**

- Temporary utilities required for construction purposes are by the G.C.
- Field offices, storage trailers, fencing are by the GC.
- Temporary toilets by the GC.
- Organization and use of site to be determined by the GC.
- Maintain entrance and exits for City employees who are occupying adjacent portions of the building. Public will not be using the site.

# **REVIEW DRAWINGS AND SPECS:**

- Detailed phasing notes are shown on G0.1
- South side site improvements to be completed in phase 1 and north side to be completed in phase 2.
- Interior demo generally complete demo of interiors to the floor deck, perimeter walls and ceiling deck above
- New customer vestibule addition on the south side
- New mechanical / storage addition on the north side
- Exterior materials match existing
- MEP systems are new throughout

# **CONTRACTOR QUESTIONS:**

- Q1 What is the cost estimate for the project?
- A1 The cost estimate is \$3.8 million.
- Q2 Who is paying for building permits?
- A2 The City will be paying for the general building permit and all utility tap fees. Contractor will be responsible for all other permits per SUPPLEMENTARY CONDITIONS part 3.7.1.

- Q3 Who is paying for builder's risk insurance?
- A3 The City will be responsible for providing the builder's risk insurance as stated in AIA A101 Exhibit A.
- Q4 What are the extents for security fencing and is there an area designated for staging?
- A4 Refer to revised drawing G0.2 included in Addendum 1.

# **Pre-Bid Sign-In Sheet**



DATE:

November 20, 2025

PROJECT:

Huber Heights Tax, Finance & Water Departments Renovation & Addition

Name	Company	Address	Communication Numbers
			Phone: S13 -237-0532
Jason Molnar	Alleaconstruction	257, Siefferman Ad, 4700	Mobile: E-Mail: Jason & Alpha conspruction in Co
7.71	FIRE CONSTITUTION	- 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Phone: 937-692-5107
			Mobile: 937-423-398/
MR13 ROBINSON	BRUMBAUCH CONS	ST 3520 ST RT 49 ARCANUT ON 4	
			Phone: 937 492 7432
1/1/1/ ( )		4530	Mobile: 937 726-0771
Keity Con Key	Mestesheigh Con	151 1120 Millian Ct. Sidney	Olf E-Mail: Keith & west-cheideck 4
	2	157 1120 Millian Ct. Sidney etement) 3520 Turbury Road	Phone: 359 991 5193 Mobile: 359 991 5193
7 11.0	FIXT (Don't Ab	Lever 1 De l'estudy lice à	Mobile:
Lyon Melannes	S Loc. (Dens 1) 13	e rement)	E-Mail: Zuccinnesse edgle biz
T			1 1101101
Anala Tracas	Coscient the lock	aning LLc 2446 Catalpa Dr.	Mobile: 937-668-3986 E-Mail: angela egifted hand clean. a
The sac Timpson	OTT FOR ITCH DIS CLE	aning	Phone:
			Mobile:
			E-Mail:
			Phone:
			Mobile:
			E-Mail:
			Phone:
			Mobile:
			E-Mail:

PAGE \_ l OF \_ 2 PROJECT NUMBER: 4278.01

# Pre-Bid Sign-In Sheet



DATE:

November 20, 2025

**PROJECT:** 

Huber Heights Tax, Finance & Water Departments Renovation & Addition

Name	Company	Address	Communication Numbers
Issia Fox	Arcon Builders	7824 All-57, Rt 49 Arcanvm, 8 Mio 45304	Phone: 937 692 633 0  Mobile: 937 671 3933  E-Mail: Marcushorne Garcon builde
Mille Lyon	BUCKER	525 GARGLANE RD	Phone: 937-859-8308 Mobile: 937 818-5029 E-Mail: Mikel. BCI525 AGMAIL.
GREGO INSKEEP	KAPP	329 MOUNT VERNON AVE Springfield, Oh 46503	Phone: 937-324-0134 Mobile: 937-308-9096 E-Mail: GFMSKTSP@KAJPCONSTRUCTION
Caphell Costonsky	AKA	903 Salen St Brookville OH, 45509	Phone: G37 222 1501 Mobile: E-Mail: Carbell @ alca-(onstruction, con
			Phone: Mobile: E-Mail:
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			Phone: Mobile: E-Mail:

PAGE \_\_\_\_ OF \_\_\_\_ PROJECT NUMBER: 4278.01

# SECTION 08 1113 HOLLOW METAL DOORS AND FRAMES

### **PART 1 GENERAL**

#### 1.01 RELATED DOCUMENTS

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

#### 1.02 SUMMARY

- A. Section Includes:
  - 1. Standard and custom hollow metal doors and frames.
  - 2. Steel sidelight, borrowed lite and transom frames.
  - 3. Light frames and glazing installed in hollow metal doors.

#### B. Related Sections:

- 1. Division 01 Section "General Conditions".
- 2. Division 04 Section "Unit Masonry" for embedding anchors for hollow metal work into masonry construction.
- 3. Division 08 Section "Flush Wood Doors".
- 4. Division 08 Section "Glazing" for glass view panels in hollow metal doors.
- 5. Division 08 Section "Door Hardware".
- Division 08 Section "Access Control Hardware".
- Division 09 Sections "Exterior Painting" and "Interior Painting" for field painting hollow metal doors and frames.
- C. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI/SDI A250.8 Recommended Specifications for Standard Steel Doors and Frames.
  - 2. ANSI/SDI A250.4 Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, Frames Anchors and Hardware Reinforcing.
  - 3. ANSI/SDI A250.6 Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames.
  - 4. ANSI/SDI A250.10 Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
  - 5. ANSI/SDI A250.11 Recommended Erection Instructions for Steel Frames.
  - 6. ASTM A1008 Standard Specification for Steel Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 7. ASTM A653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - 8. ASTM A924 Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
  - 9. 10. SDI-113 Standard Practice for Determining the Steady-State Thermal Transmittance of Steel Door & Frame Assemblies.
  - 10. ASTM C 1363 Standard Test Method for Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus.
  - 11. ASTM C1199 Standard Test Method for Measuring the Steady-State Thermal Transmittance of Fenestration Systems Using Hot Box Methods
  - 12. ASTM E1423 Practice for Determining Steady State Thermal Transmittance of Fenestration Systems.
  - 13. ANSI/BHMA A156.115 Hardware Preparation in Steel Doors and Frames.
  - 14. ANSI/SDI 122 Installation and Troubleshooting Guide for Standard Steel Doors and Frames.
  - 15. ANSI/NFPA 80 Standard for Fire Doors and Fire Windows; National Fire Protection Association.

- 16. ANSI/NFPA 105: Standard for the Installation of Smoke Door Assemblies.
- 17. NFPA 252 Standard Methods of Fire Tests of Door Assemblies; National Fire Protection Association.
- 18. UL 10C Positive Pressure Fire Tests of Door Assemblies.
- 19. UL 1784 Standard for Air Leakage Tests of Door Assemblies.

#### 1.03 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, core descriptions, hardware reinforcements, profiles, anchors, fire-resistance rating, and finishes.
- B. Door hardware supplier is to furnish templates, template reference number and/or physical hardware to the steel door and frame supplier in order to prepare the doors and frames to receive the finish hardware items.
- C. Shop Drawings: Include the following:
  - 1. Elevations of each door design.
  - 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 anchorages, joints, field splices, and connections.
  - 6. Details of accessories.
  - 7. Details of moldings, removable stops, and glazing.
  - 8. Details of conduit and preparations for power, signal, and control systems.

# D. Samples for Verification:

 Samples are only required by request of the architect and for manufacturers that are not current members of the Steel Door Institute.

#### 1.04 QUALITY ASSURANCE

- A. Source Limitations: Obtain hollow metal doors and frames through one source from a single manufacturer wherever possible.
- B. Quality Standard: In addition to requirements specified, furnish SDI-Certified manufacturer products that comply with ANSI/SDI A250.8, latest edition, "Recommended Specifications for Standard Steel Doors and Frames".
- C. 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 UL10C (neutral pressure at 40" above sill) or UL 10C.
  - 1. Oversize Fire-Rated Door Assemblies Construction: For units exceeding sizes of tested assemblies, attach construction label certifying doors are built to standard construction requirements for tested and labeled fire rated door assemblies except for size.
  - 2. Temperature-Rise Limit: Where indicated and at vertical exit enclosures (stairwell openings) and exit passageways, provide doors that have a maximum transmitted temperature end point of not more than 450 deg F (250 deg C) above ambient after 30 minutes of standard fire-test exposure.
  - 3. Smoke Control Door Assemblies: Comply with NFPA 105.
    - a. Smoke "S" Label: Doors to bear "S" label, and include smoke and draft control gasketing applied to frame and on meeting stiles of pair doors.
- D. Fire-Rated, Borrowed-Light Frame Assemblies: Assemblies complying with NFPA 80 that are 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. Provide labeled glazing material.

E. Pre-Submittal Conference: Conduct conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier, Installer, and Contractor to review proper methods and procedures for installing hollow metal doors and frames and to verify installation of electrical knockout boxes and conduit at frames with electrified or access control hardware.

## 1.05 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 non-vented plastic.
- 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 high wood blocking. Do not store in a manner that traps excess humidity.
  - 1. Provide minimum 1/4-inch space between each stacked door to permit air circulation. Door and frames to be stacked in a vertical upright position.

### 1.06 PROJECT CONDITIONS

A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

### 1.07 COORDINATION

- A. Coordinate installation of anchorages 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.
- B. Building Information Modeling (BIM) Support: Utilize designated BIM software tools and obtain training needed to successfully participate in the Project BIM processes. All technical disciplines are responsible for the product data integration and data reliability of their Work into the coordinated BIM applications.

### 1.08 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.
- B. Warranty includes installation and finishing that may be required due to repair or replacement of defective doors.

#### **PART 2 PRODUCTS**

#### 2.01 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide steel doors and frames from a SDI Certified manufacturer:
  - 1. CECO Door Products (C).
  - 2. Curries Company (CU).
  - 3. Pioneer Industries (PI).

#### 2.02 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
- B. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.
- C. Frame Anchors: ASTM A 653/A 653M, Commercial Steel (CS), Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.

#### 2.03 HOLLOW METAL DOORS

- A. General: Provide 1-3/4 inch (44 mm) doors of design indicated, not less than thickness indicated; fabricated with smooth surfaces, without visible joints or seams on exposed faces unless otherwise indicated. Comply with ANSI/SDI A250.8 and ANSI/NAAMM HMMA 867.
- B. Exterior Doors: Face sheets fabricated of commercial quality hot-dipped zinc coated steel that complies with ASTM A 653/A 653M, Coating Designation A60. 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. Design: Flush panel.
  - 2. Core Construction: Manufacturer's thermally enhanced QMax core. Where indicated provide doors fabricated as thermal-rated assemblies with a minimum thermal rating of 0.35 (0.35)/hr-ft2-F.
  - 3. Level/Model: Level 3 and Physical Performance Level A (Extra Heavy Duty), Minimum 16 gauge (0.053-inch 1.3-mm) thick steel, Model 2.
  - 4. Top and Bottom Edges: Reinforce tops and bottoms of doors with a continuous steel channel not less than 16 gauge, extending the full width of the door and welded to the face sheet. Doors with an inverted top channel to include a steel closure channel, screw attached, with the web of the channel flush with the face sheets of the door. Plastic or composite channel fillers are not acceptable.
  - 5. Hinge Reinforcement: Minimum 7 gauge (3/16") plate 1-1/4" x 9" or minimum 14 gauge continuous channel with pierced holes, drilled and tapped.
  - 6. Hardware Reinforcements: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.
- C. Interior Doors: Face sheets fabricated of commercial quality cold rolled steel that complies with ASTM A 1008/A 1008M. 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:
  - Design: Flush panel.
  - 2. Core Construction: Manufacturer's standard kraft-paper honeycomb, or one-piece polystyrene core, securely bonded to both faces.
    - a. Fire Door Core: As required to provide fire-protection and temperature-rise ratings indicated.
  - 3. Level/Model: Level 2 and Physical Performance Level B (Heavy Duty), Minimum 18 gauge (0.042-inch 1.0-mm) thick steel, Model 2.
  - 4. Top and Bottom Edges: Reinforce tops and bottoms of doors with a continuous steel channel not less than 16 gauge, extending the full width of the door and welded to the face sheet.
  - 5. Hinge Reinforcement: Minimum 7 gauge (3/16") plate 1-1/4" x 9" or minimum 14 gauge continuous channel with pierced holes, drilled and tapped.
  - 6. Hardware Reinforcements: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.
- D. Manufacturers Basis of Design:
  - 1. Curries Company (CU) Honeycomb Core 707 Series.
  - 2. Curries Company (CU) QMax Core 707 Series.

#### 2.04 HOLLOW METAL FRAMES

- A. General: Comply with ANSI/SDI A250.8 and with details indicated for type and profile.
- B. Thermal Break Frames: Subject to the same compliance standards and requirements as standard hollow metal frames. Tested for thermal performance in accordance with NFRC 102, and resistance to air infiltration in accordance with NFRC 400. Where indicated provide thermally broken frame profiles available for use in both masonry and drywall construction. Fabricate with 1/16" positive thermal break and integral vinyl weatherstripping.
- C. Exterior Frames: Fabricated of hot-dipped zinc coated steel that complies with ASTM A 653/A 653M, Coating Designation A60.

- 1. Fabricate frames with mitered or coped corners. Profile as indicated on drawings.
- 2. Frames: Minimum 14 gauge (0.067-inch -1.7-mm) thick steel sheet.
- 3. Manufacturers Basis of Design:
  - a. Curries Company (CU) Mercury 3 Thermal Break TQ Series.
- D. Interior Frames: Fabricated from cold-rolled steel sheet that complies with ASTM A 1008/A 1008M.
  - 1. Fabricate frames with mitered or coped corners. Profile as indicated on drawings.
  - 2. Frames: Minimum 16 gauge (0.053-inch -1.3-mm) thick steel sheet.
  - 3. Manufacturers Basis of Design:
    - a. Curries Company (CU) M Series.
- E. Fire rated frames: Fabricate frames in accordance with NFPA 80, listed and labeled by a qualified testing agency, for fire-protection ratings indicated.
- F. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 Table 4 with reinforcement plates from same material as frames.

#### 2.05 FRAME ANCHORS

- A. Jamb Anchors:
  - 1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, formed from A60 metallic coated material, not less than 0.042 inch (1.07 mm) thick, with corrugated or perforated straps not less than 2 inches (50.8 mm) wide by 10 inches (254 mm) long; or wire anchors not less than 0.177 inch (4.5 mm) thick.
  - 2. Stud Wall Type: Designed to engage stud and not less than 0.042 inch (1.07 mm) thick.
  - Compression Type for Drywall Slip-on (Knock-Down) Frames: Adjustable compression anchors.
- B. Floor Anchors: Floor anchors to be provided at each jamb, formed from A60 metallic coated material, not less than 0.042 inches (1.07 mm) thick.
- C. Mortar Guards: Formed from same material as frames, not less than 0.016 inches (0.41 mm) thick.

### 2.06 LIGHT OPENINGS AND GLAZING

- A. Stops and Moldings: Provide stops and moldings around glazed lites where indicated. Form corners of stops and moldings with butted or mitered hairline joints at fabricator's shop. Fixed and removable stops to allow multiple glazed lites each to be removed independently. Coordinate frame rabbet widths between fixed and removable stops with the type of glazing and installation indicated.
- B. Moldings for Glazed Lites in Doors and Loose Stops for Glazed Lites in Frames: Minimum 20 gauge thick, fabricated from same material as door face sheet in which they are installed.
- C. Fixed Frame Moldings: Formed integral with hollow metal frames, a minimum of 5/8 inch (15.88 mm) high unless otherwise indicated. Provide fixed frame moldings and stops on outside of exterior and on secure side of interior doors and frames.
- D. Preformed Metal Frames for Light Openings: Manufacturer's standard frame formed of 0.048-inch-thick, cold rolled steel sheet; with baked enamel or powder coated finish; and approved for use in doors of fire protection rating indicated. Match pre-finished door paint color where applicable.

## 2.07 ACCESSORIES

- A. Mullions and Transom Bars: Join to adjacent members by welding or rigid mechanical anchors.
- B. Grout Guards: Formed from same material as frames, not less than 0.016 inches (0.41 mm) thick.

#### 2.08 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 thickness of metal. Where practical, fit and assemble units in manufacturer's plant. When shipping limitations so dictate, frames for large openings are to be fabricated in sections for splicing or splining in the field by others.
- B. Tolerances: Fabricate hollow metal work to tolerances indicated in ANSI/SDI A250.8.

#### C. Hollow Metal Doors:

- 1. Exterior Doors: Provide optional weep-hole openings in bottom of exterior doors to permit moisture to escape where specified.
- 2. Glazed Lites: Factory cut openings in doors with applied trim or kits to fit. Factory install glazing where indicated.
- 3. Astragals: Provide overlapping astragals as noted in door hardware sets in Division 08 Section "Door Hardware" on one leaf of pairs of doors where required by NFPA 80 for fire-performance rating or where indicated. Extend minimum 3/4 inch (19.05 mm) beyond edge of door on which astragal is mounted.
- 4. Electrical Raceways: Provide hollow metal doors to receive electrified hardware with concealed wiring harness and standardized Molex™ plug connectors on both ends to accommodate up to twelve wires. Coordinate connectors on end of the wiring harness to plug directly into the electrified hardware and the through-wire transfer hardware or wiring harness specified in hardware sets in Division 08 Sections "Door Hardware" and "Access Control Hardware". Wire nut connections are not acceptable.

#### D. Hollow Metal Frames:

- Shipping Limitations: 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.
- 2. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible.
  - a. Welded frames are to be provided with two steel spreaders temporarily attached to the bottom of both jambs to serve as a brace during shipping and handling. Spreader bars are for bracing only and are not to be used to size the frame opening.
- 3. 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.
- 4. High Frequency Hinge Reinforcement: Provide high frequency hinge reinforcements at door openings 48-inches and wider with mortise butt type hinges at top hinge locations.
- 5. Continuous Hinge Reinforcement: Provide welded continuous 12 gauge straps for continuous hinges specified in hardware sets in Division 08 Section "Door Hardware".
- 6. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated for removable stops, provide security screws at exterior locations.
- 7. Mortar Guards: Provide guard boxes at back of hardware mortises in frames at all hinges and strike preps regardless of grouting requirements.
- 8. Electrical Knock Out Boxes: Factory weld 18 gauge electrical knock out boxes to frame for electrical hardware preps; including but not limited to, electric through wire transfer hardware, electrical raceways and wiring harnesses, door position switches, electric strikes, magnetic locks, and jamb mounted card readers as specified in hardware sets in Division 08 Sections "Door Hardware" and "Access Control Hardware".
  - a. Provide electrical knock out boxes with a dual 1/2-inch and 3/4-inch knockouts.
  - b. Conduit to be coordinated and installed in the field (Division 26) from middle hinge box and strike box to door position box.
  - c. Electrical knock out boxes to comply with NFPA requirements and fit electrical door hardware as specified in hardware sets in Division 08 Section "Door Hardware".
  - d. Electrical knock out boxes for continuous hinges should be located in the center of the vertical dimension on the hinge jamb.

- Floor Anchors: Weld anchors to bottom of jambs and mullions with at least four spot welds per anchor.
- 10. Jamb Anchors: Provide number and spacing of anchors as follows:
  - a. Masonry Type: Locate anchors not more than 18 inches (457.2 mm) from top and bottom of frame. Space anchors not more than 32 inches (812.8 mm) on-center 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 (2286 mm) high.
    - 3) Four anchors per jamb from 90 to 120 inches (3048 mm) high.
    - 4) Four anchors per jamb plus 1 additional anchor per jamb for each 24 inches (609.6 mm) or fraction thereof above 120 inches (3048 mm) high.
  - b. Stud Wall Type: Locate anchors not more than 18 inches (457.2 mm) from top and bottom of frame. Space anchors not more than 32 inches (812.8 mm) o.c. and as follows:
    - 1) Three anchors per jamb up to 60 inches (1524 mm) high.
    - 2) Four anchors per jamb from 60 to 90 inches (2286 mm) high.
    - 3) Five anchors per jamb from 90 to 96 inches (2438.4 mm) high.
    - 4) Five anchors per jamb plus 1 additional anchor per jamb for each 24 inches (609.6 mm) or fraction thereof above 96 inches (2438.4 mm) high.
    - 5) Two anchors per head for frames above 42 inches (1066.8 mm) wide and mounted in metal stud partitions.
- 11. Door Silencers: Except on weatherstripped or gasketed doors, drill stops to receive door silencers. Silencers to be supplied by frame manufacturer regardless if specified in Division 08 Section "Door Hardware".
- 12. Bituminous Coating: Where frames are fully grouted with an approved Portland Cement based grout or mortar, coat inside of frame throat with a water based bituminous or asphaltic emulsion coating to a minimum thickness of 3 mils (0.0762 mm) DFT, tested in accordance with UL 10C and applied to the frame under a 3rd party independent follow-up service procedure.
- E. Hardware Preparation: Factory prepare hollow metal work to receive template mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping 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 non-template, 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.
  - 4. Coordinate locations of conduit and wiring boxes for electrical connections with Division 26 Sections.

### 2.09 STEEL FINISHES

- A. Prime Finishes: Doors and frames to be cleaned, and chemically treated to insure maximum finish paint adhesion. Surfaces of the door and frame exposed to view to receive a factory applied coat of rust inhibiting shop primer.
  - 1. Shop Primer: Manufacturer's standard, fast-curing, lead and chromate free primer complying with ANSI/SDI A250.10 acceptance criteria; recommended by primer manufacturer for substrate; and compatible with substrate and field-applied coatings.

#### **PART 3 EXECUTION**

#### 3.01 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. General Contractor to verify the accuracy of dimensions given to the steel door and frame manufacturer for existing openings or existing frames (strike height, hinge spacing, hinge back set, etc.).
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.02 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. Prior to installation, adjust and securely brace welded hollow metal frames for square, level, twist, and plumb condition.
- C. Tolerances shall comply with SDI-117 "Manufacturing Tolerances Standard Steel Doors and Frames."
- Drill and tap doors and frames to receive non-template, mortised, and surface-mounted door hardware.
- E. Verify tolerances against manufacturers installations instructions for tornado and hurricane storm shelter openings.

#### 3.03 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 ANSI/SDI A250.11 and NFPA 80 at fire rated openings.
  - 1. Set frames accurately in position, plumbed, leveled, aligned, and braced securely until permanent anchors are set. After wall construction is complete and frames properly set and secured, remove temporary braces, leaving surfaces smooth and undamaged. Shim as necessary to comply with installation tolerances.
  - 2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with post-installed expansion anchors.
  - 3. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with mortar.
  - 4. Grout Requirements: Do not grout head of frames unless reinforcing has been installed in head of frame. Do not grout vertical or horizontal closed mullion members.
- C. 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 (3.18 mm) plus or minus 1/16 inch (1.59 mm).
    - b. Between Edges of Pairs of Doors: 1/8 inch (3.18 mm) plus or minus 1/16 inch (1.59 mm).
    - c. Between Bottom of Door and Top of Threshold: Maximum 3/8 inch (9.52 mm).
    - d. Between Bottom of Door and Top of Finish Floor (No Threshold): Maximum 3/4 inch (19.05 mm).
  - 2. Fire-Rated Doors: Install doors with clearances according to NFPA 80.
- D. Field Glazing: Comply with installation requirements in Division 08 Section "Glazing" and with hollow metal manufacturer's written instructions.

#### 3.04 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.
- Remove grout and other bonding material from hollow metal work immediately after installation.

C. Prime-Coat and Painted Finish Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat, or painted finishes, and apply touchup of compatible air drying, rust-inhibitive primer, zinc rich primer (exterior and galvanized openings) or finish paint.

# 3.05 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
  - 1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

**END OF SECTION 08 1113** 

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