

**ADDENDUM 001**

**TO THE**

**DLR Group**  
**Architecture Engineering Design**  
7290 West 133<sup>rd</sup> Street  
Overland Park, Kansas 66213  
Telephone 913-897-7811

PROJECT MANUAL AND DRAWINGS

FOR

April 22, 2019

SPRING HILL EARLY EDUCATION CENTER  
SPRING HILL USD NO. 230

DLR Group Project No. 12-16117-00

FOR COMBINED CONTRACT

NOTICE TO BIDDERS: The Project Manual and Drawings for the above referenced project are hereby amended as follows:

**PROJECT MANUAL**

ITEM NO. 1 SECTION 033000 – CAST-IN-PLACE CONCRETE

a. Paragraph 2.7.C.1: Add the following subparagraph:

“e. Concrete Moisture Solutions: CPS.”

ITEM NO. 2 SECTION 079200 – JOINT SEALANTS

a. Paragraph 2.2.A.1: Add the following subparagraph:

“g. Pecora Corporation; 860.”

ITEM NO. 3 SECTION 081113 – HOLLOW METAL DOORS AND FRAMES

a. Delete section in its entirety and substitute with Attachment 1 to Addendum 001 dated April 22, 2019.

ITEM NO. 4 SECTION 087100 – DOOR HARDWARE

a. Paragraph 3.5: Delete HW Set No. 03 in its entirety and substitute the following:

“HW SET NO. 03

For use on mark/door #(s):

A126

Qty		Description	Catalog Number	Finish	Mfr
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	CORRIDOR LOCK W/ IND	L9456P 06A L583- 363 L283-722	626	SCH
1	EA	SURFACE CLOSER	4040XP	689	LCN

1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	FLOOR STOP	FS439	630	IVE
1	EA	SEALS	488SBK	BK	ZER.”

ITEM NO. 5 SECTION 123200 – MANUFACTURED WOOD CASWORK

a. Paragraph 2.1.A.1: Add the following:

“a. Advanced Cabinet Systems”

b. Paragraph 2.6.F.2: Add the following:

“at all doors and drawers except at ADA sink cabinets.”

c. Paragraph 2.7.B.4: Delete paragraph in its entirety and substitute the following:

“a. Edge Treatment: 3mm (0.12 inch) PVC edging. To be selected by architect from manufacturers standard finishes.”

**DRAWINGS**

ITEM NO. 6 SHEET A9.1 – DOOR AND FRAME SCHEDULE

a. Sheet A9.1 is revised and reissued with Addendum 001 dated April 22, 2019.

ITEM NO. 7 SHEET M1.1 – HVAC PLAN – AREA A

a. Sheet M1.1 is revised and reissued with Addendum 001 dated April 22, 2019.

ITEM NO. 8 SHEET M5.1 – MECHANICAL SCHEDULES AND DETAILS

a. Sheet M5.1 is revised and reissued with Addendum 001 dated April 22, 2019.

END OF ADDENDUM 001

## SECTION 081113 - HOLLOW METAL DOORS AND FRAMES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Standard hollow metal [doors and](#) frames.

- B. Related Sections:

- 1. Section 081416 "Flush Wood Doors" for wood doors in hollow metal frames.
  - 2. Section 087100 "Door Hardware (Scheduled by Describing Products)" for door hardware for hollow metal doors and frames.
  - 3. Division 26 Sections for electrical connections including conduit and wiring for door controls and operators installed on frames with factory installed electrical knock out boxes.

#### 1.3 DEFINITIONS

- A. Minimum Thickness: Minimum thickness of base metal without coatings.
- B. Standard Hollow Metal Work: Hollow metal work fabricated according to ANSI/SDI A250.8.

#### 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, core descriptions, hardware reinforcements, profiles, anchors, fire-resistance rating, temperature-rise ratings, and finishes.
- B. 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 each different wall opening condition.
  - 6. Details of anchorages, joints, field splices, and connections.

7. Details of accessories.
8. Details of moldings, removable stops, and glazing.
9. Details of electrical knockout boxes and preparations for power, signal, and control systems.

C. Samples for Verification:

1. Samples are only required by request of the Architect and for manufacturers that are not current members of Steel Door Institute.
2. For each type of exposed finish required, prepared on Samples of not less than 3 by 5 inches (75 by 125 mm).
3. For the following items, prepared on Samples about 12 by 12 inches (305 by 305 mm) to demonstrate compliance with requirements for quality of materials and construction:
  - a. Doors: Show vertical-edge, top, and bottom construction; core construction; and hinge and other applied hardware reinforcement. Include separate section showing glazing if applicable.
  - b. Frames: Show profile, corner joint, floor and wall anchors, and silencers. Include separate section showing fixed hollow metal panels and glazing if applicable.

D. Other Action Submittals:

1. Schedule: Provide a schedule of hollow metal work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with door hardware schedule.

## 1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain hollow metal work from single source from single manufacturer.
- B. Preinstallation Conference: Conduct conference at Project site for hollow metal frames requiring electrical knockout boxes to verify installation of conduit on frames.

## 1.6 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.
- 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. Doors and frames to be stacked in vertical upright position.

## 1.7 PROJECT CONDITIONS

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

## 1.8 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.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Anweld Building Products, LLC.
  - 2. Ceco Door Products; an Assa Abloy Group company.
  - 3. Curries Company; an Assa Abloy Group company.
  - 4. Fleming Door Products Ltd.; an Assa Abloy Group company.
  - 5. Republic Builders Products.
  - 6. Steelcraft; an Ingersoll-Rand company.
- B. No substitutions. Material from custom hollow metal fabricators will not be accepted on job site unless prior approval is given in accordance with substitution request requirements.

### 2.2 MATERIALS

- A. Cold-Rolled Steel Sheets: Carbon steel complying with ASTM A 366 (ASTM A 366M), commercial quality, or ASTM A 620 (ASTM A 620M), drawing quality, special killed.
- 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 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. Glazing: Comply with requirements in Section 088000 "Glazing."

## 2.3 STANDARD HOLLOW METAL DOORS

- A. General: Provide 1-3/4-inch thick doors of design indicated, fabricated with smooth surfaces, without visible joints or seams on exposed faces unless otherwise indicated. Comply with ANSI/SDI A250.8.
1. Design: 2 Panel: See door elevation drawings.
  2. Core Construction: Manufacturer's standard kraft-paper honeycomb, polystyrene, polyurethane, polyisocyanurate, mineral-board, or vertical steel-stiffener core.  
  
~~— Thermal Rated (Insulated) Doors: Where indicated, provide doors fabricated with thermal rated assemblies with R Factor 11 or better.~~  
  
~~— Locations: Exterior doors.~~
  3. Vertical Edges for Single-Acting Doors: Beveled edge.
    - a. 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: Comply with 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 3 and Physical Performance Level A (Extra Heavy Duty), minimum 16 gage (0.053-inch - 1.3-mm-) thick steel, Model 2 (Seamless face and edges).
- C. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.
- D. Fabricate concealed stiffeners and hardware reinforcement from either cold- or hot-rolled steel sheet.

## 2.3.2.4 STANDARD HOLLOW METAL FRAMES

- A. General: Comply with ANSI/SDI A250.8 and with details indicated for type and profile.
- B. Exterior Frames: Fabricated from metallic-coated steel sheets.
1. Fabricate frames with mitered or coped corners.
  2. Fabricate frames as face welded joints and back weld joints continuously, unless otherwise indicated.
  3. Frames for Level 3 Steel Doors: 0.067-inch- (1.7-mm-) thick steel sheet.

- C. Interior Frames: Fabricated from cold-rolled steel sheet unless metallic-coated sheet is indicated.
  - 1. Fabricate frames with mitered or coped corners.
  - 2. Fabricate frames as face welded unless otherwise indicated.
  - 3. Frames for Level 3 Steel Doors: 0.053-inch- (1.3-mm-) thick steel sheet.
  - 4. Frames 48-inches and wider in opening width are required to be 0.067-inch- (1.7-mm-) thick steel sheet.
  - 5. Frames for Wood Doors: 0.053-inch- (1.3-mm-) thick steel sheet.
  - 6. Frames for Borrowed Lights: 0.053-inch- (1.3-mm-) thick steel sheet.
- D. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.8 Table 4 with reinforcement plates from same material as frames.

#### 2.42.5 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. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch (1.0 mm) thick.
- 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.

#### 2.52.6 STOPS AND MOLDINGS

- A. Moldings for Glazed Lites in Doors: Minimum 0.032 inch (0.8 mm) thick, fabricated from same material as door face sheet in which they are installed.
- 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, fabricated from same material as frames in which they are installed.

#### 2.62.7 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 (0.4 mm) thick.

2.72.8 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. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.

B. Tolerances: Fabricate hollow metal work to tolerances indicated in ANSI/SDI A250.8.

C. Hollow Metal Doors:

1. Astragals: Provide overlapping astragal as noted in door hardware sets in Section 087100 "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 mm) beyond edge of door on which astragal is mounted.
2. Continuous Hinge Reinforcement: Provide welded continuous 12 gauge strap for continuous hinges specified in hardware sets in Section 087100 "Door Hardware."
- 4-3. Electrical Raceways: Provide raceways for electrified door hardware specified in hardware sets in Section 087100 "Door Hardware."

~~B-D.~~ Hollow Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.

1. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible. Continuously backweld joints at exterior frames.
2. 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.
3. Equal Rabbet Frames: Provide frames with equal rabbet dimensions unless glazing and removable stops required wider dimension on glass side of frame.
4. High Frequency Hinge Reinforcement: Provide high frequency hinge reinforcements at door openings 48-inch and wider with mortise/butt type hinges at top hinge location.
5. Continuous Hinge Reinforcement: Provide welded continuous 12 gauge strap for continuous hinges specified in hardware sets in Section 087100 "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. Grout Guards: Weld guard boxes to frame at back of hardware mortises in frames at all hinge 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; includes but not limited to electric through wire hinges, electrical raceways, door position switches, electric strikes, and magnetic locks as noted in door hardware sets in Section 087100 "Door Hardware."
  - a. Electrical knock out boxes are required at door position switches, electric strikes, and middle hinge locations for all exterior locations regardless of electrical hardware specified in Section 087100 "Door Hardware."
  - b. Provide electrical knock out boxes with a dual 1/2-inch and 3/4-inch knockouts.
  - c. Conduit to be coordinated and installed in field from middle hinge box and strike box to door position box.



- d. Electrical knock out boxes to comply with NFPA requirements and fit electrical door hardware as specified in hardware sets in Section 087100 "Door Hardware."
  - e. Electrical knock out boxes for continuous hinges should be located in the center of the vertical dimension on the hinge jamb.
9. 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 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. Stud-Wall 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) Three anchors per jamb up to 60 inches (1524 mm) high.
    - 2) Four anchors per jamb from 60 to 90 inches (1524 to 2286 mm) high.
    - 3) Five anchors per jamb from 90 to 96 inches (2286 to 2438 mm) high.
    - 4) Five anchors per jamb plus 1 additional anchor per jamb for each 24 inches (610 mm) or fraction thereof above 96 inches (2438 mm) high.
    - 5) Two anchors per head for frames above 42 inches (1066 mm) wide and mounted in metal-stud partitions.
11. Door Silencers: Except on weather-stripped or gasketed doors, drill stops to receive door silencers as follows. Keep holes clear during construction. Silencers to be supplied by frame manufacture regardless if specified in Section 087100 "Door Hardware."
- a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
  - b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.

C.E. Fabricate concealed stiffeners, edge channels, and hardware reinforcement from either cold- or hot-rolled steel sheet.

D.F. Hardware Preparation: Factory prepare hollow metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to the Door Hardware Schedule and templates furnished as specified in Section 087100 "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.

4. Coordinate locations of conduit and wiring boxes for electrical connections with Division 26 Sections.

E.G. 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 fabricators shop

1. Single Glazed Lites: Provide fixed stops and moldings welded on secure side of hollow metal work.
2. Multiple Glazed Lites: Provide fixed and removable stops and moldings so that glazed lites are capable of being removed independently.
3. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.
4. Coordinate rabbet width between fixed and removable stops with type of glazing and type of installation indicated.
5. Gap for butted or mitered joints in glass stop should not exceed 0.0625-inch.

### 2.82.9 STEEL FINISHES

- A. Prime Finish: Apply manufacturer's standard primer immediately after cleaning and pretreating.
  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; compatible with substrate and field-applied coatings despite prolonged exposure.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

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

### 3.2 PREPARATION

- A. Remove welded-in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.

- B. Prior to installation, adjust and securely brace welded hollow metal frames for squareness, alignment, twist, and plumbness to the following tolerances:
1. 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.
  2. Alignment: Plus or minus 1/16 inch (1.6 mm), measured at jambs on a horizontal line parallel to plane of wall.
  3. 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.
  4. Plumbness: Plus or minus 1/16 inch (1.6 mm), measured at jambs on a perpendicular line from head to floor.
- C. Drill and tap doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.

### 3.3 INSTALLATION

- A. General: Install hollow metal work plumb, rigid, properly aligned, and securely fastened in place; comply with Drawings and manufacturer's written instructions.
- B. Hollow Metal Frames: Install hollow metal frames of size and profile indicated. Comply with 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. 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.
    - b. Install frames with removable glazing stops located on secure side of opening.
    - c. Install door silencers in frames before grouting.
    - d. Remove temporary braces necessary for installation only after frames have been properly set and secured.
    - e. Check plumbness, squareness, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
    - f. 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 post installed expansion anchors.
    - a. Floor anchors may be set with powder-actuated fasteners instead of post installed expansion anchors if so indicated and approved on Shop Drawings.
  3. Metal-Stud Partitions: Solidly pack mineral-fiber insulation behind frames.
  4. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout.
  5. Grouting Requirements:

- a. Do not grout head of frames unless reinforcing has been installed in head of frame.
  - b. Do not grout vertical or horizontal closed mullion members.
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.

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 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).

C.D. Glazing: Comply with installation requirements in Section 088000 "Glazing" and with hollow metal manufacturer's written instructions.

1. Secure stops with countersunk flat- or oval-head machine screws spaced uniformly not more than 9 inches (230 mm) o.c. and not more than 2 inches (50 mm) o.c. from each corner.

### 3.4 ADJUSTING AND CLEANING

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

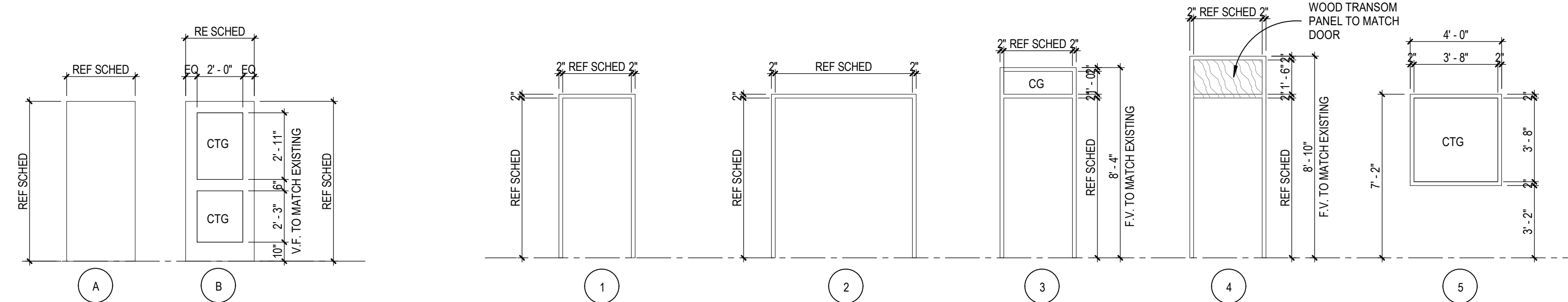
END OF SECTION 081113



DOOR AND FRAME SCHEDULE - AREA A																	
NUMBER	NO. OF PANELS	PANEL			FRAME			DETAILS									
		WIDTH	HEIGHT	THICKNESS	MATERIAL	GLASS	TYPE	DEPTH	MATERIAL	TYPE	FIRE RATING	HARDWARE SET	HEAD	JAMB LEFT	JAMB RIGHT	SILL	COMMENTS
A100	1	3'-0"	7'-0"	1 3/4"	WD			4 1/2"	ALUM			12					EXISTING DOOR TO REMAIN
A102	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			07	21/A9.1	22/A9.1			
A104	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			07	21/A9.1	22/A9.1			
A106	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			07	21/A9.1	22/A9.1			
A108	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			07	21/A9.1	22/A9.1			
A110	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			07	21/A9.1	22/A9.1			
A112	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			07	21/A9.1	22/A9.1			
A113	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			05	21/A9.1	22/A9.1			
A114	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			05	21/A9.1	22/A9.1			
A115A	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			05	21/A9.1	22/A9.1			
A115B	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	WD			11					EXISTING DOOR TO REMAIN
A116	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			11					EXISTING DOOR TO REMAIN
A123	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			11					EXISTING DOOR TO REMAIN
A126	1	3'-0"	7'-0"	1 3/4"	WD			7 3/4"	HM	3	45 MIN	03	32/A9.1	31/A9.1			
A127	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			06	21/A9.1	22/A9.1			
A129A	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			09	21/A9.1	22/A9.1			
A132	2	3'-0"	7'-0"	1 3/4"	HM			5 3/4"	HM	2		01	21/A9.1	22/A9.1			
A135A	2	3'-0"	7'-0"	1 3/4"	HM			5 3/4"	HM			10					EXISTING DOOR TO REMAIN
A147	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			08	21/A9.1	22/A9.1			
A149	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			07	21/A9.1	22/A9.1			
A153	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			07	21/A9.1	22/A9.1			
A155	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			08	21/A9.1	22/A9.1			
A157	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			08	21/A9.1	22/A9.1			
A159	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM			08	21/A9.1	22/A9.1			

WINDOW SCHEDULE							
NUMBER	FRAME TYPE	MATERIAL	DEPTH	DETAILS			
				HEAD	JAMB LEFT	JAMB RIGHT	SILL
A129B	5	HM	5 3/4"	23/A9.1	24/A9.1	24/A9.1	24/A9.1

DOOR AND FRAME SCHEDULE - AREA B - ALTERNATE #3																	
NUMBER	NO. OF PANELS	PANEL			FRAME			DETAILS									
		WIDTH	HEIGHT	THICKNESS	MATERIAL	GLASS	TYPE	DEPTH	MATERIAL	TYPE	FIRE RATING	HARDWARE SET	HEAD	JAMB LEFT	JAMB RIGHT	SILL	COMMENTS
B100B	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM			10					EXISTING DOOR TO REMAIN
B102A	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM	4		04	32/A9.1	31/A9.1			
B102B	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM	1		05	21/A9.1	22/A9.1			
B103C	2	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM	2		02	21/A9.1	22/A9.1			
B103D	2	3'-0"	7'-0"	1 3/4"	WD			8 1/4"	HM	2		02	21/A9.1	22/A9.1			



DOOR TYPES

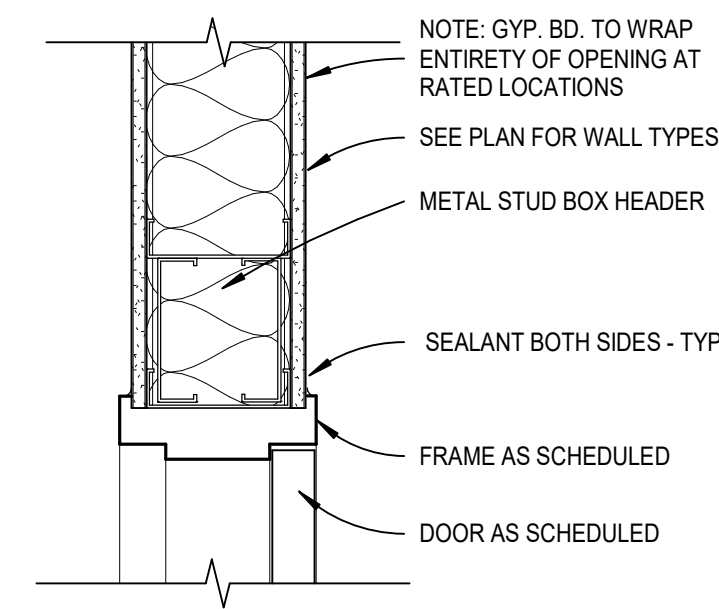
INTERIOR FRAME ELEVATIONS

DOOR AND FRAME SCHEDULE GENERAL NOTES

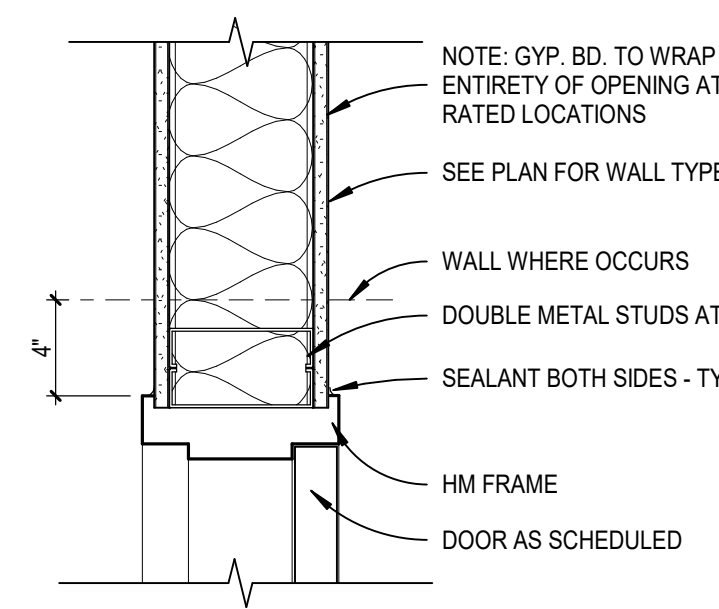
- A. GLASS TYPES FOR DOORS ARE INDICATED IN THE DOOR GLAZING COLUMN OF THE DOOR AND FRAME SCHEDULE. GLASS TYPES FOR FRAMES ARE INDICATED ON THE FRAME ELEVATIONS OR IN THE SPECIFICATIONS.
- B. FRAME MANUFACTURER SHALL COORDINATE LOCATIONS OF ALL CONCEALED CONDUIT AND J-BOXES REQUIRED FOR SECURITY SYSTEM HARDWARE PRIOR TO MANUFACTURING OF HOLLOW METAL FRAMES AND COORDINATE WITH SECURITY HARDWARE AND DEVICES.
- C. SEE SPECIFICATIONS HARDWARE SECTION FOR HARDWARE SETS NOTED IN DOOR AND FRAME SCHEDULE.

GLAZING ABBREVIATIONS:

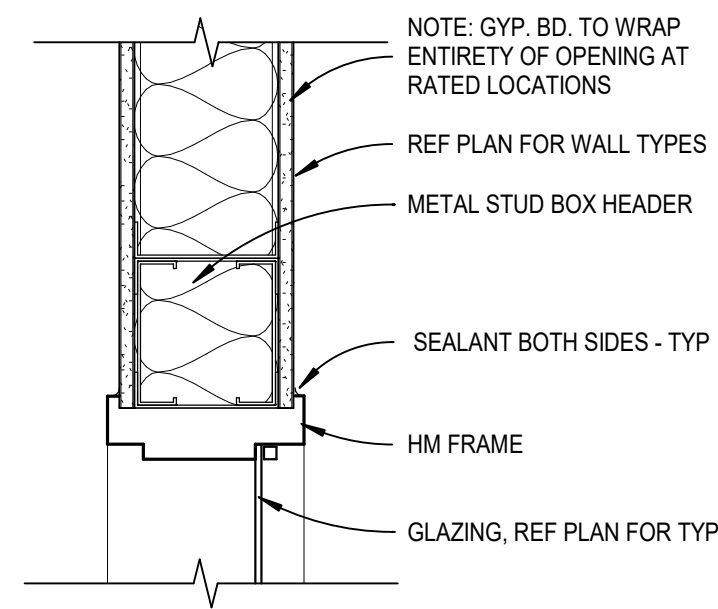
- CG CLEAR FLOAT GLASS
- CTG CLEAR TEMPERED FLOAT GLASS



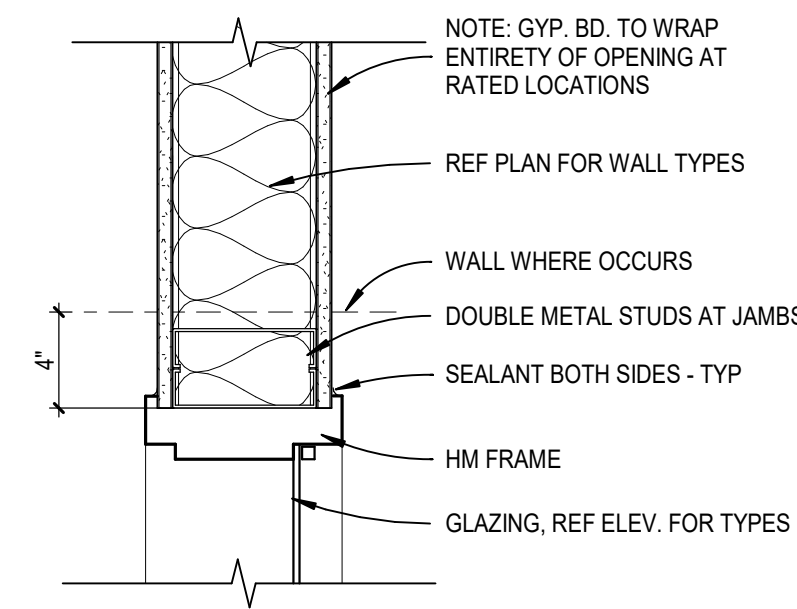
21 DR DTL-HM-HEAD  
A9.1 SCALE: 1 1/2" = 1'-0"



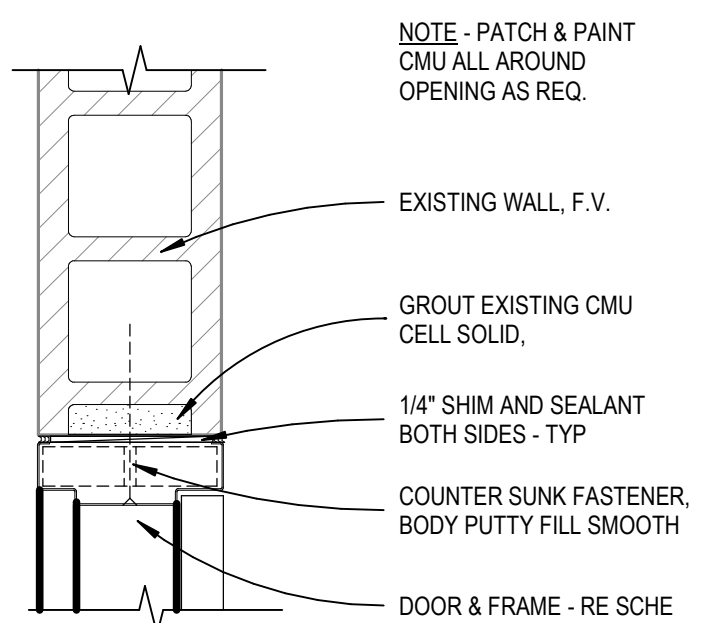
22 DR DTL-HM-JAMB  
A9.1 SCALE: 1 1/2" = 1'-0"



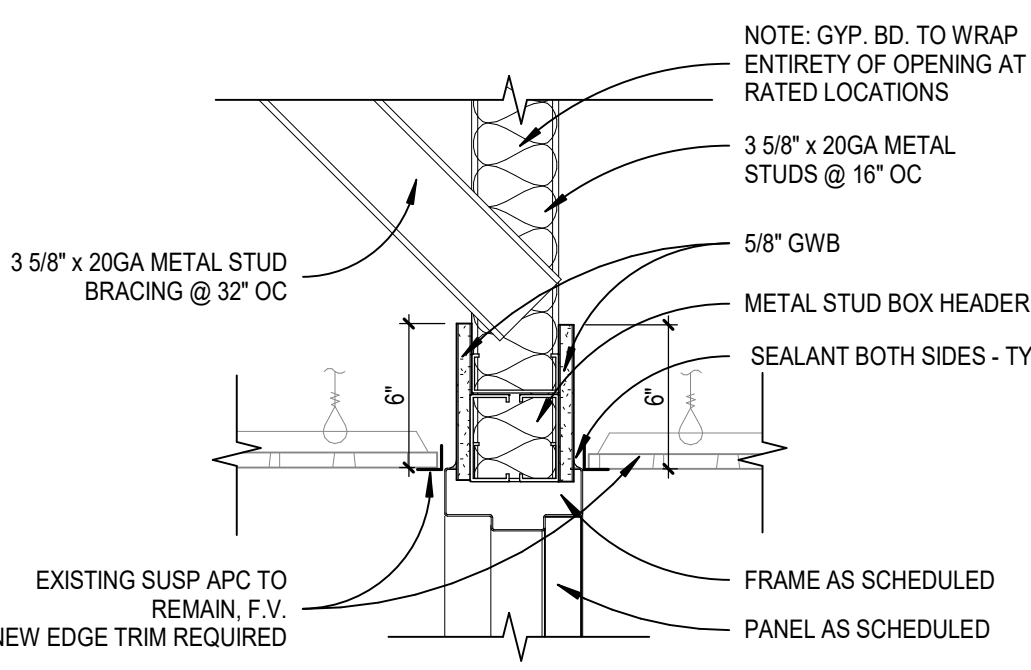
23 HM WNDW-HEAD  
A9.1 SCALE: 1 1/2" = 1'-0"



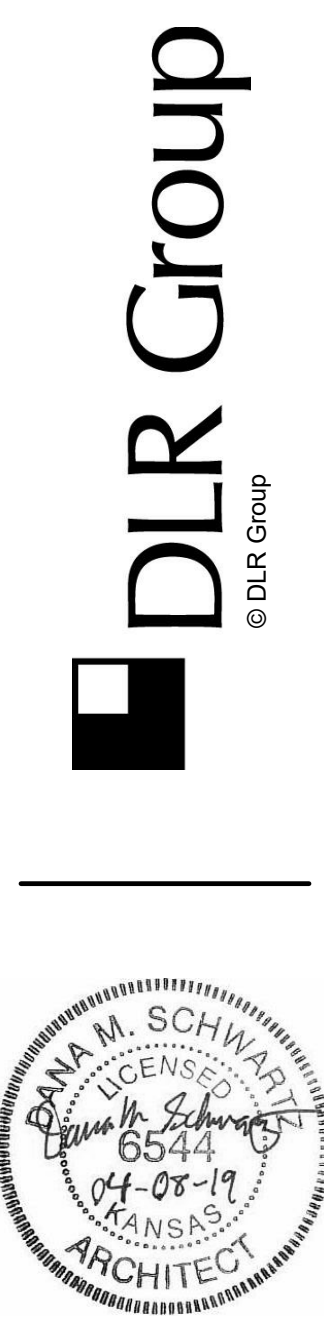
24 HM WNDW-JAMB / SILL  
A9.1 SCALE: 1 1/2" = 1'-0"



31 HM JAMB DETAIL @ EXIST. WALL  
A9.1 SCALE: 1 1/2" = 1'-0"



32 DR DTL HEAD @ EXIST WALL  
A9.1 SCALE: 1 1/2" = 1'-0"



SPRING HILL EARLY CHILDHOOD CENTER  
 SPRING HILL USD 230  
 307 E SOUTH STREET  
 SPRING HILL, KANSAS 66083

CONSTRUCTION DOCUMENTS  
 04/08/2019  
 Revisions  
 ADDENDUM #1 04/22/2019

12-16117-00  
 DOOR AND FRAME SCHEDULE

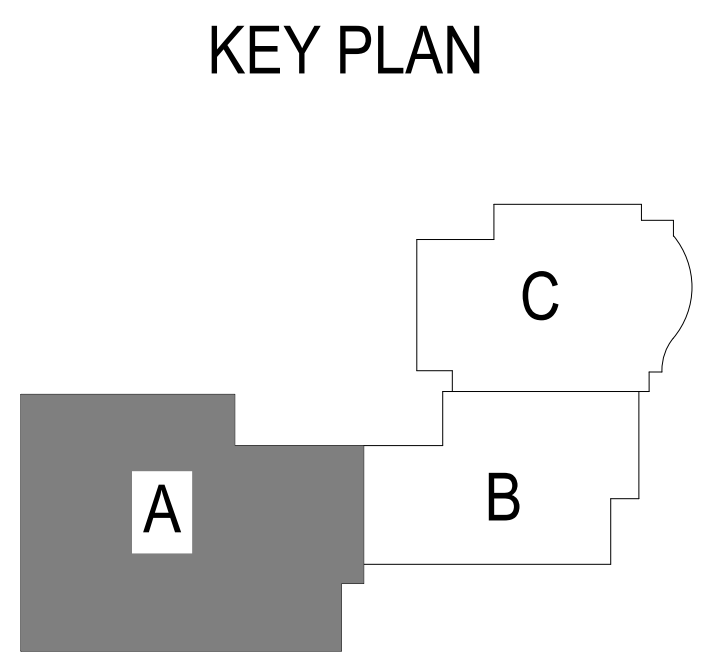
A9.1

KEYED NOTES

- 1 RELOCATE EXISTING DIFFUSER TO LOCATION SHOWN. RECONNECT TO EXISTING DUCTWORK AND BALANCE TO PREVIOUSLY MEASURED AIRFLOW.
- 2 8" EXHAUST DUCT UP THROUGH ROOF. TERMINATE WITH GOOSENECK AND BIRD SCREEN. REFERENCE DETAIL 13M5.1
- 3 10" EXHAUST DUCT UP THROUGH ROOF. TERMINATE WITH GOOSENECK AND BIRD SCREEN. REFERENCE DETAIL 13M5.1
- 4 CONNECT NEW DIFFUSER TO EXISTING DUCTWORK AND BALANCE TO PREVIOUSLY MEASURED AIRFLOW.
- 5 CONNECT NEW RETURN GRILLE TO EXISTING TRANSFER DUCT ABOVE CEILING.
- 6 RELOCATE EXISTING DIFFUSER TO LOCATION SHOWN. ELEVATION TO MATCH THE EXISTING CONDITION. BALANCE TO PREVIOUSLY MEASURED AIRFLOW MINUS 50 CFM.
- 7 DO NOT PENETRATE WALL DIRECTLY BELOW A STRUCTURAL BEARING POINT. FIELD VERIFY.
- 8 EXISTING SUPPLY DIFFUSER TO REMAIN.

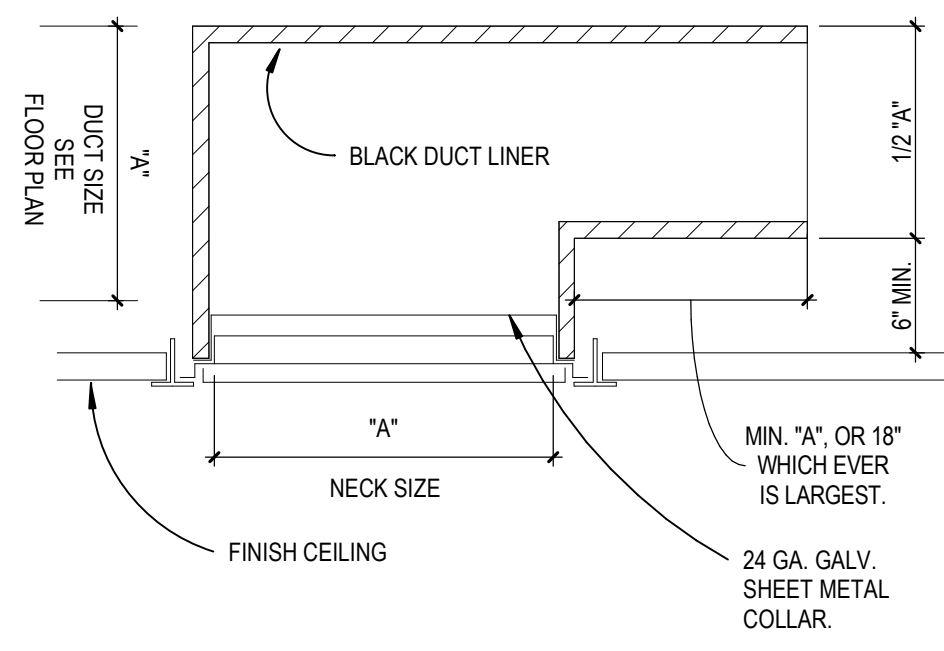


**HVAC PLAN - AREA A**  
SCALE: 1/8" = 1'-0"



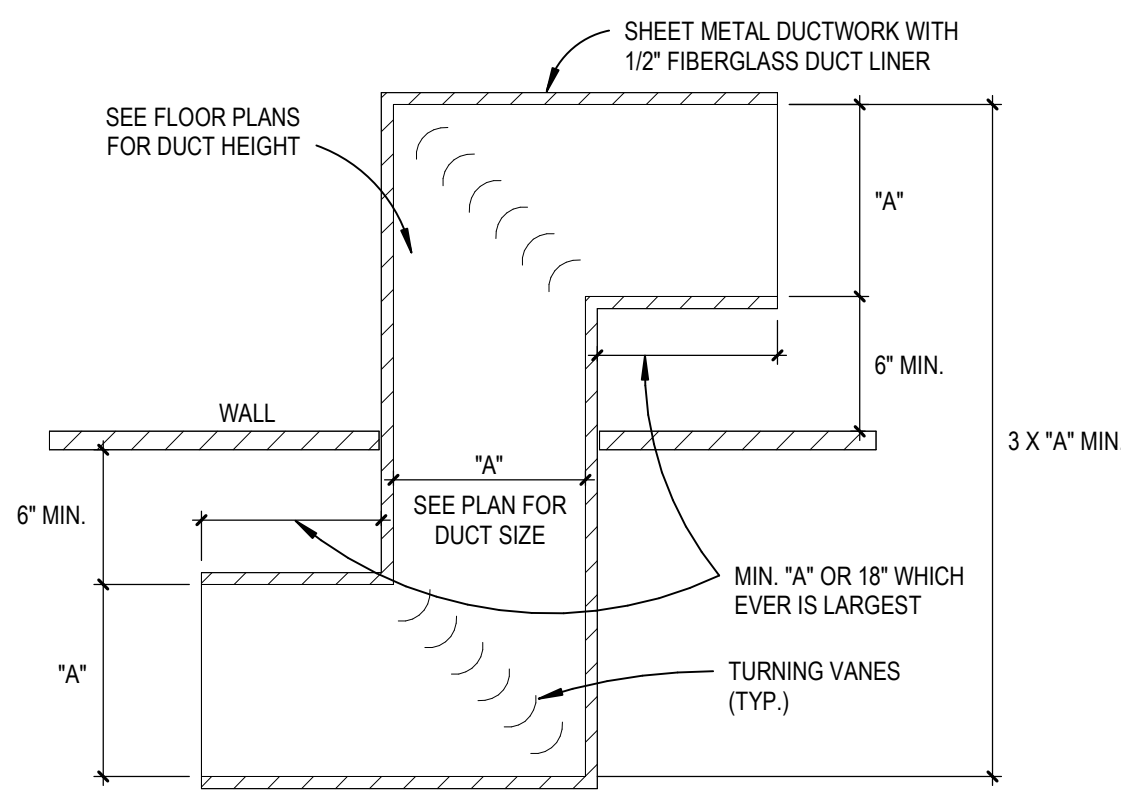
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4/22/2019 12:53:05 PM



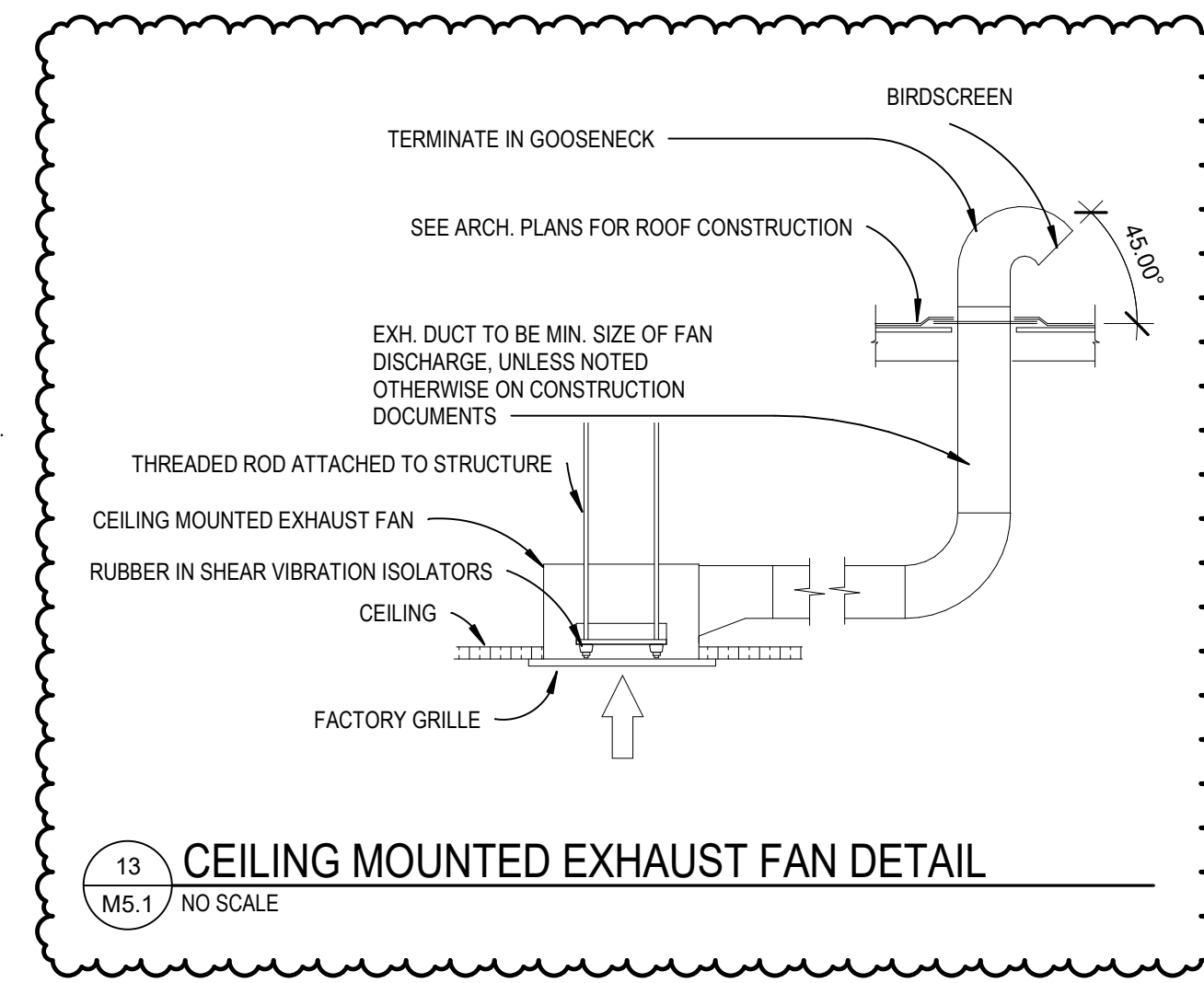


- NOTES:
1. PROVIDE SOUND BOOT AT ALL PLENUM RETURN GRILLES.
  2. FLEXABOOT MANUFACTURED BY THERMAFLEX MAYBE SUBSTITUTED IN LIEU OF FABRICATED RETURN AIR BOOT.
  3. INTERIOR OF SHEET METAL DUCT TO BE LINED.

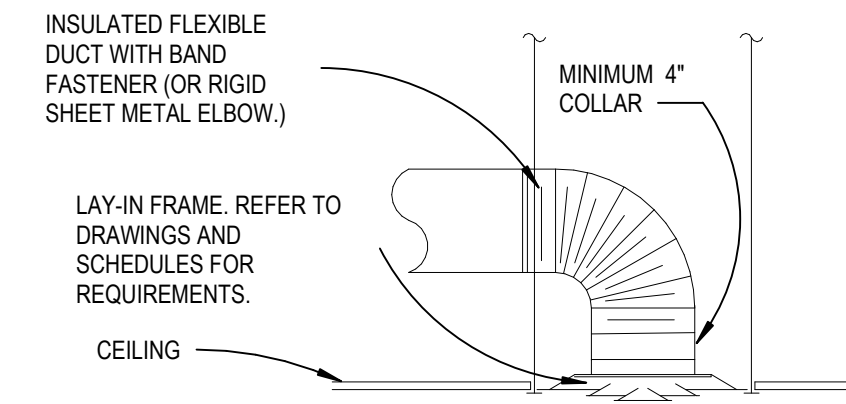
11  
M5.1 NO SCALE  
**RETURN AIR BOOT DETAIL**



12  
M5.1 NO SCALE  
**Z TRANSFER DUCT DETAIL**



13  
M5.1 NO SCALE  
**CEILING MOUNTED EXHAUST FAN DETAIL**



- NOTES:
1. REFER TO PLANS FOR DUCT SIZES
  2. FLEXIBLE DUCT LENGTHS SHALL BE A MINIMUM 5'-0"

14  
M5.1 NO SCALE  
**DIFFUSER CONNECTION DETAIL**

**ME SCHED - FANS (F-) - SECTION 233423**

MARK	SERVES	ROOM SERVED	BASIS OF DESIGN (COOK)	FAN DATA				HP	VOLTAGE	POLES	SONES	WEIGHT (LBS)	NOTES	MARK
				FAN TYPE	CFM	EXT. S.P. IN WG	FAN RPM							
F-A102	RESTROOM	A102	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A102
F-A104	RESTROOM	A104	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A104
F-A106	RESTROOM	A106	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A106
F-A108	RESTROOM	A108	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A108
F-A110	RESTROOM	A110	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A110
F-A112	RESTROOM	A112	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A112
F-A126	MOTHERS ROOM	A126	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A126
F-A127	RESTROOM	A127	CG-222	CEILING	200	0.25	1,400	1/10	120 V	1	2.0	32	ALL	F-A127
F-A147	RESTROOM	A147	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A147
F-A149	RESTROOM	A149	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A149
F-A153	RESTROOM	A153	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A153
F-A155	RESTROOM	A155	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A155
F-A157	RESTROOM	A157	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A157
F-A159	RESTROOM	A159	CG-222	CEILING	75	0.25	1,332	1/10	120 V	1	1.2	22	ALL	F-A159

- GENERAL:
- SEE PLANS FOR EXACT UNIT LOCATION AND CONFIGURATION
- EQUIPMENT SELECTION SHALL BE BASED ON ALTITUDE OF JOB SITE
- INTERLOCK WITH LIGHTS. REFERENCE ELECTRICAL PLANS.
- BASIS OF DESIGN MODEL NUMBERS ARE FOR REFERENCE ONLY
- BID EQUIPMENT TO PROVIDE THE INDICATED PERFORMANCE
- NOTES:
1. PROVIDE WITH STANDARD PREWIRED POWER DISCONNECT MOUNTED EXTERNAL TO THE FAN.
  2. RUBBER IN SHEAR ISOLATORS
  3. PROVIDE WITH GRAVITY BACKDRAFT DAMPER
  4. DIRECT DRIVE FAN WITH PREWIRED FAN SPEED CONTROLLER
  5. PROVIDE 277 VOLT TRANSFORMER

**ME SCHED - DIFFUSER (D-), REGISTER (R-) & GRILLE (G-) - SECTION 233713**

MARK	BASIS OF DESIGN	FRAME TYPE	STYLE	FRAME SIZE	MAX NC	MATERIAL	INTEGRAL DAMPER (Y/N)	FINISH	NOTES
D-1	TITUS OMNI	LAY-IN	SQUARE PLAQUE FACE	SEE PLANS	20	STEEL	N	WHITE	1,3
G-1	TITUS 50R	LAY-IN	EGGCRATE TO RETURN BOOT	SEE PLANS	20	STEEL	N	WHITE	2

- NOTES:
1. SEE PLAN FOR CORE SIZE
  2. PROVIDE 24X24 SOUND BOOT PER DETAIL 11/M5.1
  3. MATCH EXISTING DIFFUSER NECK SIZE. ASSUME 10" DIAMETER FOR BIDDING.