

ADDENDUM NO. 1

TO

RED CLAY CONSOLIDATED SCHOOL DISTRICT
WILMINGTON CAMPUS RENOVATIONS
BID PACKAGE 'B'

This addendum is hereby made part of the Project Manual and Drawings dated 28 May 2013.

The Project Manual and Drawings shall be supplemented or amended as specified herein.

This Addendum contains changes to the requirement of the Project Manual. Such changes shall be incorporated into the Contract Documents and shall apply to work with the same meaning and force as if they had been included in the original Documents. Whenever this Addendum modifies a portion of a paragraph of the Project Manual, the remainder of the paragraph affected shall remain in force. Added information is shown as **Bold**, deleted information is shown as ~~striketrough~~.

This Addendum contains changes to the requirement of the Drawings. Such changes shall be incorporated into the Contract Documents and shall apply to work with the same meaning and force as if they had been included in the original Documents. Whenever this Addendum modifies a portion of any drawing, the remainder of the drawing affected shall remain in force. Added, deleted or revised information is shown as "clouded".

The conditions and terms of the basic Contract Documents shall govern work unless otherwise described in this Addendum. Whenever the conditions of work, and the quality or quantity of materials, or workmanship are not fully described in this Addendum, the conditions of work included in the basic Contract Documents for similar items of work shall apply to the work described in this Addendum.

If no similar items of work are included in the basic Contract Document, the best quality of material and workmanship shall apply and all work shall be subject to the written acceptance of the Architect.

THE BID OPENING DATE HAS BEEN CHANGED. ALL BIDS ARE DUE AT THE MAIN OFFICE OF THE CAB CALLOWAY SCHOOL OF THE ARTS, 100 NORTH DUPONT ROAD, WILMINGTON, DELAWARE 19807 UNTIL 3:30 PM LOCAL TIME ON TUESDAY JULY 2, 2013.

PRE-BID MEETING SIGN-IN SHEETS DATED 6 JUNE 2013 ATTACHED HERETO.

THE LAST DAY FOR QUESTIONS IS TUESDAY 25 JUNE 2013.

BIDDERS ARE ADVISED THAT THE ONLY RELIABLE SOURCE OF DOCUMENTS FOR THIS SOLICITATION IS THE EDIS FTP SITE. BIDDERS THAT RELY ON INFORMATION PUBLISHED ON ANY OTHER COMMERCIAL WEBSITES DO SO AT THEIR OWN RISK.

Addendum No. 3 – Consists of the following:

- I. Response to Bidders' Questions
- II. Revisions to Project Manual/Specifications
- III. Revisions to Drawings

I. RESPONSES TO BIDDERS' QUESTIONS

- A.** A copy of the response to RFI No. 1 is attached hereto.

II. REVISIONS TO PROJECT MANUAL/SPECIFICATIONS

A. SECTION 000110 – TABLE OF CONTENTS - Make the following pen and ink changes to this section and annotate these changes as Addendum No. 1.

1. RE-NUMBER Section 08 71 01 to read 08 71 02.
2. DELETE Section 08 92 00 – LOUVERED EQUIPMENT ENCLOSURES completely

B. SECTION 013216 CONSTRUCTION SCHEDULE

1. INSERT – Red Clay Consolidated School District, Renovations to Wilmington Campus Construction Schedule dated 28 May 2013, attached hereto.

C. SECTION 08 71 01 - DOOR HARDWARE. Delete Section and replace with new section of the same name and renumbered 08 71 02, included in this addendum.

D. SECTION 08 71 02 - DOOR HARDWARE. Add new section included in this addendum.

E. SECTION 08 80 00 - GLAZING

1. Page 1, Article 2.01, Paragraph B and C:
Change to read:
B. Glass Type 1: Float Glass: All glazing is to be float glass unless otherwise indicated.
 1. Fully Tempered Types: ASTM C1048.
 2. Thickness: 1/4 inch.C. Glass Type 2: Fire-Protection-Rated Glazing:
 1. IBC Fire Protection Rating: D-H-45 or OH-45 or W-60, minimum.
 2. Provide products listed by Underwriters Laboratories or Intertek Warnock Hersey.
 3. Products:
 - a. SCHOTT North America Inc; Pyran Platinum L (laminated) Fire Rated Ceramic Glass.
 - b. Vetrotech Saint-Gobain North America;.
 - e. Minimum Roof Slope: 1/2 inch in 12 inches.

F. SECTION 08 92 00 – LOUVERED EQUIPMENT ENCLOSURES. Delete this section in its entirety.

G. SECTION 23 03 00 – VIBRATION AND SOUND ISOLATION

1. Page 1, Article 1.2, Paragraph A, Item 4:
Change to read:
4. Equipment
2. Page 3, Article 2.2, Paragraph D:
Change to read:
D. Equipment Lagging

H. SECTION 23 06 00 – AIR DISTRIBUTION & ACCESSORIES - HVAC

1. Page 1, Article 1.2, Paragraph A:
Remove Item 3:
3. Double Wall Ductwork – Square and Rectangular
2. Page 4, Article 2.3:
Remove Article:
2.3 Double Wall Ductwork – Square and Rectangular

III. REVISIONS TO DRAWINGS

A. A-002 PARTITION SCHEDULE: REPLACE drawing in its entirety with attached drawing annotated Addendum No. 1, dated 06/07/13.

B. A-112 MEZZANINE: Change partition tags “G3” & “G4” to “G5”.

C. M-111 SECOND FLOOR MECHANICAL PLANS:

1. Remove SAU-7 from the vertical duct. Refer to sketch M-700.
2. Relocate SAU-2 to 24” below elbow. Refer to sketch M-700.
3. Add note and indicate location of ductwork to be 16 gauge construction. Refer to sketch M-700.

D. M-112 MEZZANINE MECHANICAL PLANS:

1. Relocate SAU-2 to 24” below elbow. Refer to sketch M-701.
2. Remove SAU-9 from return duct of RTU-3. Refer to sketch M-701.
3. Add SAU-7 to elbow of return duct for RTU-3. Refer to sketch M-701.
4. Add SAU-8 to elbow of supply duct for RTU-3. Refer to sketch M-701.
5. Revise note for shaded ductwork. Refer to sketch M-701.
6. Remove shading to 24”x44” (RA) duct. Refer to sketch M-701.
7. Add note and indicated location of ductwork to be 16 gauge construction. Refer to sketch M-701.

E. M-113 CATWALKS 7 ROOF MECHANICAL PLANS:

1. Remove SAU-9 from Section ‘C-C’. Refer to sketch M-702.
2. Remove SAU-8 from return duct of RTU-3. Refer to sketch M-702.
3. Remove shading and shading note from Auditorium ductwork. Refer to sketch M-702.
4. Add note and indicated location of ductwork to be 16 gauge construction. Refer to sketch M-702.

F. M-301 MECHANICAL SCHEDULES:

1. Revise “Sound Attenuating Unit Schedule”. Refer to sketch M-703.

END OF ADDENDUM NO. 1



EDIS COMPANY

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TEL. (302) 421-5700 • FAX (302) 421-5715 • WWW.EDISCOMPANY.COMRED CLAY CONSOLIDATED SCHOOL DISTRICT- WILMINGTON CAMPUS RENOVATIONS
BID PACKAGE 'B' - PRE-BID MEETING

Date: 6 June 2013

Please Print!

COMPANY NAME	CONTACT NAME	EMAIL ADDRESS	PHONE NUMBER	FAX NUMBER	MAILING ADDRESS
CASSIDY PAINT	BILL KREISSEL	bill@cassidypainting.com	326-2412	2418	475 OLD AIRPORT RD NC DE 19720
FLO MECHANICAL	JOE SHUB	JOES@FLOMECHANICAL.COM	302-239-7299	NA	507 BAXTER CT Hockessin, DE
Mid-Atlantic	George Elliott	GELLIOTT@maes.com	302-934-7171	934-7170	24556 BETTS PD RD. Millsboro, DE 19966
CASTLE Const.	MICHAEL BERK	MICHAEL.BERK@CAVTEL.NET	420-7444	326-3601	185A Old Churchmans Rd. 19720
Nickle Electric	Mike Voss	MVOSS@NickleElectric.com	453-4000	453-4483	14 Mill Park Court Newark DE 19713
M & S HARTING	Jim McElroy	MSPAINTERS@AOL.COM	995-2623	995-2420	P.O. Box 637 Wilton, Del 19781
P-C Roofing	Mike Cusack	Michael@PCRoofing-inc.com	322-6767	322-8909	35 Southgate Blvd New Castle, DE 19720
TJ Distributors	Jason Dinen	jason@tjdistributors.com	410-635-6358	410-635-6359	2220 Commerce Road, Cent 5 Forest Hill, MD 21050
RETRACTOR					
Rc Fabricators	DAN Edelen	dedelen@refabricators.com	573-8989	8984	824 Locust St. Wilm DE 19801
Ventresca Bros, Inc.	Tony Ventresca	Tventresca@VentrescaBrosInc.com	302-658-6436	302-658-2360	2300 N. DuPont Hwy., New Castle, DE 19720
Wilkinson Roofing	Stephanie Bleeker	Stephanie@wilkinsonroofing.com	302-945-0176	302-945-9719	10200 First State Blvd, Wilmi DE 1984
Enterprise Masonry	Mark Podolak	mpodolaka@emcbrick.com	302-764-6858	302-764-6859	10430 Bellvue Ave. Wilm. DE 19800
JOSHI CONSTRUCTION	KIRTI JOSHI	JOSHICONSTRUCTION@COMCAST.NET	302-239-5090	302-239-4704	2272 BRACKENHILL ROAD HOCKESSIN, DE 19707



REQUEST FOR INFORMATION

TO: CHANDRA NILEKANI, ABHA

PRE-BID RFI#: 1

FROM: VINNIE COLONNA

DATE: 12 JUNE 2013

PROJECT: WILMINGTON CAMPUS RENOVATIONS – BID PACK 'B'

DWG. # / DETAIL: _____ SPEC. SECTIONS: _____ PAGE: _____

REQUEST:

1. At the front of the stadium seating there is a 3/8" steel plate shown at the risers (ref. 1/S-107). Please advise if this plate is continuous across the whole seating area or if it is only required at the stair risers. **3/8" steel shall be continuous.**
2. In reference to the scope of work. Item 10-23 Provide stage grid-iron framing. This framing is shown as existing on the plan with the exception of a few members. Please advise that we are only supplying the new members as shown on the plan. **Yes – existing grid iron is to remain. Supplemental steel and modifications as shown on the drawings**
3. In the scope of work item 10-25, Provide louvered equipment enclosures. Please advise that the structural steel contractor is only responsible for the structural framing to support these louvers. **Louvers to be removed from scope per owners request at the Executive Meeting. EDIS shall provide response.**
4. On the structural drawings the hangers for the catwalk are called out as L4x4 angle. On the architectural drawings the hangers are called out as TS 3x3 tube steel. Please advise which material should be used.
Provide L4X4 as shown on structural Drawings

Submitted By: Dan Edelen, RC Fabricators

Date: 11 June 13

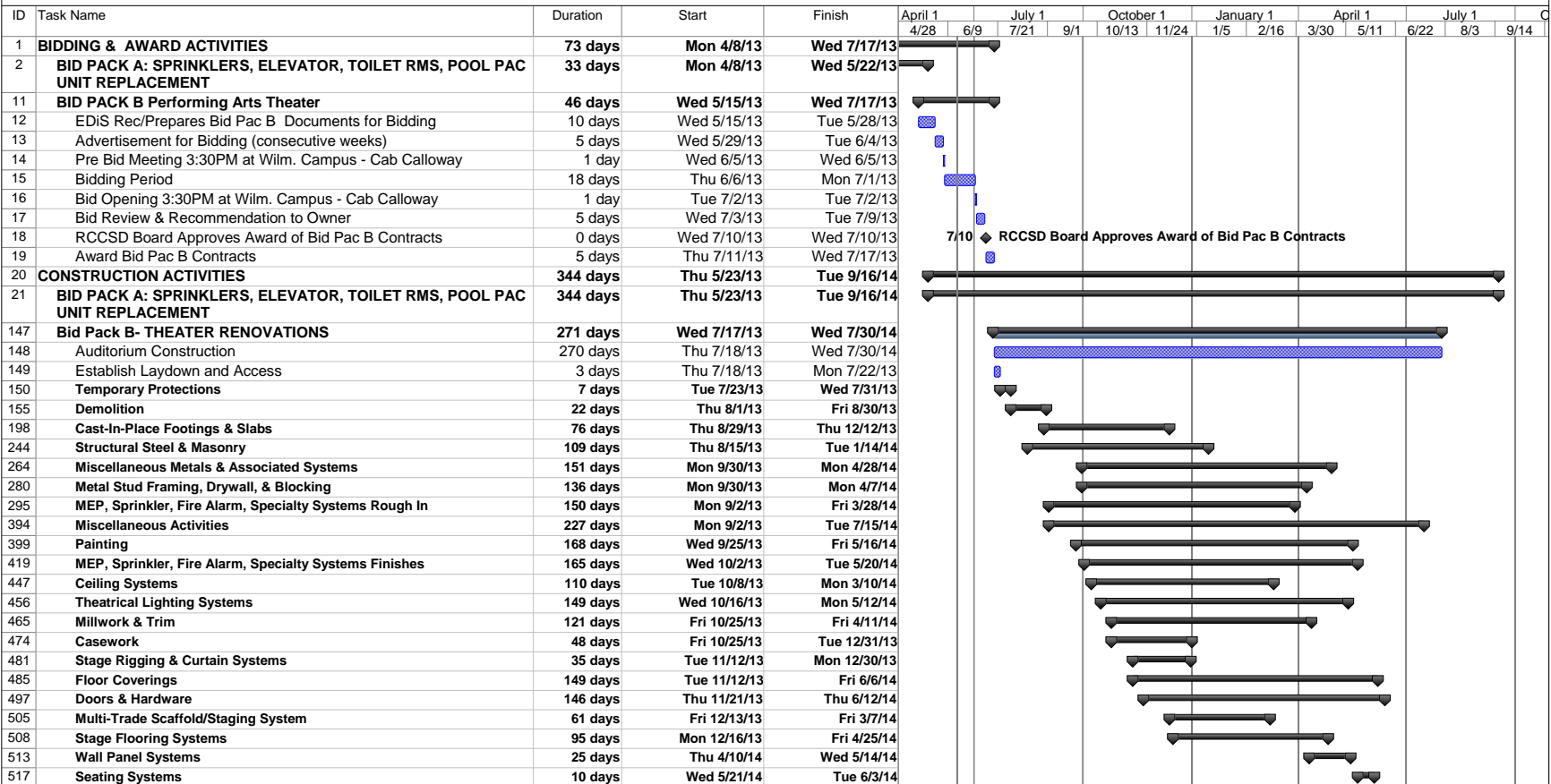
RESPONSE:

See responses above

Response By: David Barisa Date: 06/13/2013

EDiS Company
Construction Managers

**RED CLAY CONSOLIDATED SCHOOL DISTRICT
RENOVATIONS TO WILMINGTON CAMPUS
CONSTRUCTION SCHEDULE**



Red Clay Consolidated School District
Construction Schedule
Date: 28 May 13

Task		External Tasks		Inactive Summary		Start-only	
Split		External Milestone		Manual Task		Finish-only	
Milestone		Inactive Task		Duration-only		Progress	
Summary		Inactive Task		Manual Summary Rollup		Deadline	
Project Summary		Inactive Milestone		Manual Summary			

SECTION 08 71 02
DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes furnishing and installation of door hardware for doors specified in “Hardware Sets” and required by actual conditions. Including screws, bolts, expansion shields, electrified door hardware, and other devices for proper application of hardware.
- B. Where items of hardware are not specified and are required for intended service, such omission, error or other discrepancy shall be submitted to Architect fourteen calendar days prior to bid date for clarification by addendum.
- C. Products supplied but not installed under this Section:
 - 1. Hardware for aluminum doors will be furnished under this Section, but installed under Division 08 00 00 Openings
 - 2. Final replacement of cylinder cores to be installed by Owner.
- D. Refer to Division 1 for alternates that may affect work of this Section.
- E. Related Divisions:
 - 1. Division 08 00 00 Openings
 - 2. Division 26 00 00 Electrical

1.02 REFERENCES

- A. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI):
 - 1. ANSI/BHMA A156.1 Butts & Hinges (2006)
 - 2. ANSI/BHMA A156.2 Bored & Preassembled Locks & Latches (2003)
 - 3. ANSI/BHMA A156.3 Exit Devices (2008)
 - 4. ANSI/BHMA A156.4 Door Controls - Closers (2008)
 - 5. ANSI/BHMA A156.5 Auxiliary Locks (2010)
 - 6. ANSI/BHMA A156.6 Architectural Door Trim (2010)
 - 7. ANSI/BHMA A156.7 Template Hinge Dimensions (2009)
 - 8. ANSI/BHMA A156.8 Door Controls - Overhead Stops and Holders (2010)
 - 9. ANSI/BHMA A156.15 Closer Holder Release Devices (2006)
 - 10. ANSI/BHMA A156.16 Auxiliary Hardware (2008)
 - 11. ANSI/BHMA A156.18 Materials & Finishes (2006)
 - 12. ANSI/BHMA A156.21 Thresholds (2009)
 - 13. ANSI/BHMA A156.22 Door Gasketing Systems (2005)
 - 14. ANSI/BHMA A156.26 Continuous Hinges (2006)
 - 15. ANSI/BHMA A156.28 Keying Systems (2007)
 - 16. ANSI/BHMA A156.29 Exit Locks and Alarms (2007)
 - 17. ANSI/BHMA A156.30 High Security Cylinders (2003)
 - 18. ANSI/BHMA A156.115 Hardware Preparation in Steel Doors and Steel Frames (2006)
 - 19. ANSI/BHMA A156.115W Hardware Preparation in Wood Doors with Wood or Steel Frames (2006)
- B. International Code Council/American National Standards Institute (ICC/ANSI)/ADA:
 - 1. ICC/ANSI A117.1 Standards for Accessible and Usable Buildings and Facilities (2003)

2. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- C. Underwriters Laboratories, Inc. (UL):
 1. UL 10C Positive Pressure Fire Test of Door Assemblies
 2. UL 1784 Air Leakage Test of Door Assemblies
 3. UL/ULC Listed
- D. Door and Hardware Institute (DHI):
 1. DHI Publication - Keying Systems and Nomenclature (1989)
 2. DHI Publication - Abbreviations and Symbols
 3. DHI Publication - Installation Guide for Doors and Hardware
 4. DHI Publication - Sequence and Format of Hardware Schedule (1996)
- E. National Fire Protection Agency (NFPA)
 1. NFPA 70 National Electrical Code (2008)
 2. NFPA 80 Standard for Fire Doors and Other Opening Protective's (2007)
 3. NFPA 101 Life Safety Code (2006)
 4. NFPA 105 Standard for the Installation of Smoke Door Assemblies (2007)
- F. Building Codes
 1. IBC International Building Code (2009)
 2. Local Building Code

1.03 SUBMITTALS

- A. Submit in accordance with Conditions of the Contract and Division 1 Administrative Requirements.
- B. Shop Drawings:
 1. Hardware schedule shall be organized in vertical format illustrated in DHI Publications Sequence and Formatting for the Hardware Schedule. Include abbreviations and symbols page according to DHI Publications Abbreviations and Symbols. Complete nomenclature of items required for each door opening as indicated.
 2. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of hardware.
 3. Architectural Hardware Consultant (AHC), as certified by DHI, who shall affix seal attesting to completeness and correctness, shall review hardware schedule prior to submittal.
- C. Submit manufacturer's catalog sheet on design, grade and function of items listed in hardware schedule. Identify specific hardware item per sheet, provide index, and cover sheet.
- D. Coordination:
 1. Distribute door hardware templates to related divisions within fourteen calendar days of approved hardware schedule.
- E. Closeout Submittals: Submit to Owner in a three ring binder or CD if requested.
 1. Warranties.
 2. Maintenance and operating manual.
 3. Maintenance service agreement.
 4. Record documents.
 5. Copy of approved hardware schedule.
 6. Copy of approved keying schedule with bitting list.
 7. Hardware supplier name, phone number and fax number.

1.04 QUALITY ASSURANCE

- A. Hardware supplier shall employ an Architectural Hardware Consultant (AHC) as certified by DHI and a member of the seal program who shall be available at reasonable times during course of work for Project hardware consultation.
- B. Door hardware shall conform to ICC/ANSI A117.1.
 - 1. Handles, Pulls, Latches, Locks and operating devices: Shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist.
- C. Fire Rated Door Assemblies: Where fire-rated door assemblies are indicated, provide door hardware rated for use in 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 UL 10C, unless otherwise indicated.
- D. Smoke and Draft Control Door Assemblies: Where smoke and draft control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
- E. Door hardware shall be certified to ANSI/BHMA standards as noted, participate and be listed in BHMA Certified Products Directory.
- F. Substitution request: Refer to Division 1 Substitutions for procedures to submit products meeting the requirements in this Section.
- G. Pre-installation Meeting: Comply with requirements in Division 1 Section "Project Meetings."
 - 1. Convene meeting seven days before installation. Participants required to attend:
 - a. Contractor, installer, material supplier, manufacturer representatives.
 - 2. Include in conference decisions regarding proper installation methods and procedures for receiving and handling hardware.
 - 3. Review and finalize construction schedule and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
- H. Within fourteen days of receipt of approved door hardware submittals contact Owner with representative from hardware supplier to establish a keying conference. Verify keyway, visual key identification, number of master keys and keys per lock. Provide keying system per Owners instructions.
- I. Installer Qualifications: Specialized in performing installation of this Section and shall have five years minimum documented experience.
- J. Hardware listed in 3.07- Hardware Schedule is intended to establish a type and grade.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Provide a clean, dry and secure room for hardware delivered to Project but not yet installed.
- B. Furnish hardware with each unit marked and numbered in accordance with approved finish hardware schedule. Include door and item number for each type of hardware.
- C. Pack each item complete with necessary parts and fasteners in manufacturer's original packaging.
- D. Deliver permanent keys, cores to Owner via registered mail or overnight package service. Instructions for delivery to Owner shall be established at "Keying Conference."
- E. Waste Management and Disposal

1. Separate waste materials for reuse or recycling in accordance with Division 1.

1.06 WARRANTY

- A. General Warranty: Owner may have under provisions of the Contract Documents and shall be an addition and run concurrent with other warranties made by Contractor under requirements of the Contract documents.
- B. Special Warranty: Warranties specified in this article shall not deprive Owner of other rights. Contractor, hardware supplier, and hardware installer shall be responsible for servicing hardware and keying related problems.
 1. Ten years for manual door closers.
 2. Five years for mortise, auxiliary and bored locks.
 3. Five years for exit devices.
 4. Two years for electromechanical door hardware.
- C. Products judged defective during warranty period shall be replaced or repaired in accordance with manufacturer's warranty at no cost to Owner. There is no warranty against defects due to improper installation, abuse and failure to exercise normal maintenance.

PART 2 - PRODUCTS

2.01 HINGES

- A. Hinges, continuous hinges shall be of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Products to be certified and listed by the following:
 1. Butts and Hinges: ANSI/BHMA A156.1
 2. Template Hinge Dimensions: ANSI/BHMA A156.7
 3. Self-Closing Hinges: ANSI/BHMA 156.17
 4. Continuous Hinges: ANSI/BHMA A156.26
- C. Butt Hinges:
 1. Hinge weight and size unless otherwise indicated in hardware sets:
 - a. Doors up to 36" wide and up to 1-3/4" thick provide hinges with a minimum thickness of .134" and a minimum of 4-1/2" in height.
 - b. Doors from 36" wide up to 42" wide and up to 1-3/4" thick provide hinges with a minimum thickness of .145" and a minimum of 4-1/2" in height.
 - c. For doors from 42" wide up to 48" wide and up to 1-3/4" thick provide hinges with a minimum thickness of .180" and a minimum of 5" in height.
 - d. Doors greater than 1-3/4" thick provide hinges with a minimum thickness of .180" and a minimum of 5" in height.
 - e. Width of hinge is to be minimum required to clear surrounding trim.
 2. Base material unless otherwise indicated in hardware sets:
 - a. Exterior Doors: 304 Stainless Steel, Brass or Bronze material.
 - b. Interior Doors: Steel material.
 - c. Fire Rated Doors: Steel or 304 Stainless Steel materials.
 - d. Stainless Steel ball bearing hinges shall have stainless steel ball bearings. Steel ball bearings are unacceptable.
 3. Quantity of hinges per door unless otherwise stated in hardware sets:
 - a. Doors up to 60" in height provide 2 hinges.
 - b. Doors 60" up to 90" in height provide 3 hinges.
 - c. Doors 90" up to 120" in height provide 4 hinges.

- d. Doors over 120" in height add 1 additional hinge per each additional 30" in height.
- e. Dutch doors provide 4 hinges.
- 4. Hinge design and options unless otherwise indicated in hardware sets:
 - a. Hinges are to be of a square corner five-knuckle design, flat button tips and have ball bearings unless otherwise indicated in hardware sets.
 - b. Out-swinging exterior and out-swinging access controlled doors shall have non-removable pins (NRP) to prevent removal of pin while door is in closed position.
 - c. When full width of opening is required, use hinges that are designed to swing door completely from opening when door is opened to 95 degrees.
 - d. Provide mortar boxes for frames that require any electrically modified hinges if not an integral part of frame.
 - e. When shims are necessary to correct frame or door irregularities, provide metal shims only.
- 5. Acceptable Manufactures:

	Standard Weight	Heavy Weight
a. Hager	BB1279/BB1191	BB1168/BB1199
b. Bommer	BB5000/BB5002	BB5004/BB5006
c. McKinney	TA2714/TA2314	T4A3786/T4A3386

2.02 CONTINUOUS HINGES

- A. Continuous hinges shall be of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Products to be certified and listed by the following:
 - 1. Continuous Hinges: ANSI/BHMA A156.26 Grade 1
- C. Continuous Geared Hinges:
 - 1. Determine model number by door and frame application, door thickness, frequency of use, and fire rating requirements according to manufacturer's recommendations.
 - a. Length of hinge shall be 1" less door height unless otherwise stated in hardware sets.
- D. Material and Design:
 - 1. Base material: Anodized aluminum manufactured from 6063-T6 material, unexposed working metal surfaces shall be coated with TFE dry lubricant
 - 2. Bearings:
 - a. Vertical loads shall be carried on Lubriloy RL bearings for non Fire Rated doors.
 - b. Standard weight hinges shall have a minimum spacing between bearings of 5-1/8". Typical door from 80" to 84" in height to have a minimum of 16 bearings.
 - c. Heavy Weight hinges shall have a minimum spacing between bearings of 2-9/16". Typical door from 80" to 84" in height to have a minimum of 32 bearings.
 - 3. Options:
 - a. Removable Electric Through-Wire (RETW) shall have appropriate number of wires to transfer power through door frame to door for proper connection of finish hardware. Provide RETW in a form that can be removed for connection, servicing without removing entire hinge from door and frame, and certified to

handle an amperage rating of 3.5AMPS/continuous duty with
16.0AMPS/intermittent duty.

- b. Hinges shall have Rounded Back Cover Channel (RBCC).
- c. When full width of opening is required, use hinges that are designed to swing door completely from opening when door is opened to 95 degrees.
- d. Fire rated hinges shall carry UL certification, up to and including 90-minute applications for wood doors and up to 3-hour applications for metal doors.

E. Acceptable Manufactures:

	Heavy Duty
1. Hager Companies	780-224HD 780-210HD
2. Bommer	FM120HD
3. Zero	914A

2.03 FLUSH BOLTS AND COORDINATORS

- A. Flushbolts shall be of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer to be listed by the following:
 - 1. Auxiliary Hardware: ANSI/BHMA A156.16
- C. Labeled openings: Provide automatic or constant latching flush bolts per hardware schedule for inactive leaf of pairs of doors. Provide dust proof strikes for bottom bolt.
- D. Non-Labeled openings: Provide two flush bolts for inactive leaf of pairs of doors per hardware schedule. Top bolt shall not be more than 78" centerline from floor. Provide dust proof strike for bottom bolt.

E. Acceptable Manufactures:

	Manual Flush Bolt	Auto Flush Bolt	Dust Proof Strike
1. Hager Companies	282D	291D/292D/295W/295M	280X
2. Rockwood	555	1942	570
3. Trimco	3917	3815	3911

- F. Coordinators: Provide for labeled pairs of doors with automatic flush bolts or with vertical rod exit device with a mortise-locking device per hardware schedule. Provide filler piece to extend full width of stop on frame. Provide mounting brackets for closers and special preparation for latches where applicable.

G. Acceptable Manufactures:

	Coordinator	Bracket	Bracket for stops > 2-1/4"
1. Hager Companies	297D	297M	297N
2. Rockwood	1600	1601AB	1601C
3. Trimco	3094	3095	3096

2.04 LOCKS AND LATCHES (GRADE 1 CYLINDRICAL)

- A. Locks and latches shall be of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Product to be certified and listed by following:
 - 1. ANSI/BHMA A156.2 Series 4000 Certified to Grade 1.
 - 2. ANSI/BHMA A250.13 Certified for a minimum design load of 1150lbf (100psf) for single out swinging doors measuring 36" in width and 84" in height and a minimum design load of 1150lbf (70psf) for out swinging single doors measuring 48" in width and 84" in height.

3. UL/cUL Labeled and listed for functions up to 3 hours for single doors up to 48" in width and up to 96" in height.
 4. UL10C/UBC 7-2 Positive Pressure Rated.
 5. ICC/ANSI A117.1.
- C. Lock and latch function numbers and descriptions of manufactures series as listed in hardware sets.
- D. Material and Design:
1. Lock and Latch chassis to be Zinc dichromate for corrosion resistance.
 2. Keyed functions to be of a freewheeling design to help resists against vandalism.
 3. Non-handed, field reversible.
 4. Thru-bolt mounting with no exposed screws.
 5. Levers shall be Zinc cast and plated to match finish designation in hardware sets.
 6. Roses shall be of solid Brass or Stainless Steel material.
- E. Latch and Strike:
1. Stainless Steel latch bolt with minimum of ½" throw and deadlocking for keyed and exterior functions. Provide ¾" latchbolt for pairs of fire rated doors. Standard backset to be 2-3/4" and faceplate shall be adjustable to accommodate a square edge door or a standard 1/8" beveled edge door.
 2. Strike is to fit a standard ANSI A115 prep measuring 1-1/4" x 4-7/8" with proper lip length to protect surrounding trim.
- F. Acceptable Manufactures:
1. Schlage: ND Series - Everest - no equal

2.05 DEADBOLTS (GRADE 1)

- A. Deadbolts shall be of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer to be certified by the following:
1. Auxiliary Locks: ANSI/BHMA A156.5 Grade 1
 2. UL/cUL listed for functions up to 3 hours for "A" label
 3. UL10C/UBC 7-2 Positive Pressure Rated
- C. Deadbolt function numbers and descriptions of manufactures series as listed in hardware sets.
- D. Material and Design:
1. Latch bolt 1"throw, material brass with concealed harden steel roller to prevent sawing or cutting.
 2. Freewheeling collar design to help resists against vandalism.
 3. Non-handed, field reversible.
- E. Acceptable Manufactures:
1. Hager Companies: 3830S Series.
 2. Schlage:
 3. Sargent:

2.06 EXIT DEVICES (GRADE 1)

- A. Shall be touch pad type, finish to match balance of door hardware. Exit Devices shall be of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer to be certified and or listed by the following:
1. BHMA Certified ANSI A156.3 Grade 1
 2. UL/cUL Listed for up to 3 hours for "A" labeled doors

3. UL10C/UBC 7-2 Positive Pressure Rated
4. UL10B Neutral Pressure Rated
5. UL 305 Listed for Panic Hardware
- C. Material and Design:
 1. Touch pad shall extend a minimum of one half-door width. Freewheeling lever design shall match design of lock levers. Exit device to mount flush with door.
 2. Latchbolts:
 - a. Rim device - $\frac{3}{4}$ " throw, Pullman type with automatic dead-latching, stainless steel
 - b. Surface vertical rod device - Top $\frac{1}{2}$ " throw, Pullman type with automatic dead-latching, stainless steel. Bottom $\frac{1}{2}$ " throw, Pullman type, held retracted during door swing, stainless steel.
 3. Fasteners: Wood screws, machine screws and thru-bolts.
- D. Lock and Latch Functions: Function numbers and descriptions of manufacturer's series and lever styles indicated in door hardware sets.
- E. Acceptable Manufacturers:
 1. Hager Companies: 4500 Series
 2. Von Duprin: 99 Series
 3. Sargent: 80 Series

2.07 CYLINDERS AND KEYING

- A. Cylinders shall be of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer shall meet the following:
 1. Auxiliary Locks: ANSI/BHMA A156.5
 2. DHI Handbook "Keying systems and nomenclature" (1989)
- C. Cylinders:
 1. Schlage Everest cores for interior and Primus for exterior.
 2. Shall be furnished with cams/tailpieces as required for locking device that is being furnished for project.
- D. Keying:
 1. Contact Owner with representative from hardware supplier to establish a keying conference. Verify keyway, visual key identification, number of master keys and keys per lock. Provide keying system per Owners instructions.
 2. Copy of Owners approved keying schedule shall be submitted to Owner and Architect with documentation of which keying conference was held and Owners sign-off.
 3. Provide a bitting list to Owner of combinations as established, and expand to twenty five percent for future use or as directed by Owner.
 4. Key into Owner's existing keying system.
 5. Keys to be shipped to Owner's representative, individually tag per keying conference.
 6. Provide visual key control identification on keys.
- E. Acceptable manufacturers:
 1. Schlage - no equal

2.08 PUSH/PULL PLATES AND BARS

- A. Push and pull plates shall be of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer to be certified by the following:
 - 1. Architectural Door Trim: ANSI/BHMA A156.6
 - 2. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- C. Push plates: .050" thick, square corner and beveled edges with counter sunk screw holes. Width and height as stated in hardware sets.
 - 1. Acceptable Manufactures:
 - a. Hager Companies: 30S
 - b. Rockwood
 - c. Trimco
- D. Pull plates: .050" thick, square corner and beveled edges. Width and height as stated in hardware sets, 3/4" diameter pull, with clearance of 2-1/2" from face of door.
 - 1. Acceptable Manufactures:
 - a. Hager Companies: H33
 - b. Rockwood
 - c. Trimco
- E. Push Pull Bar Sets: 1" round bar stock with 2 1/2" clearances from face of door. Offset to be 3", 90-degree standard. Center to center size should be door width less 1 stile width.
 - 1. Acceptable Manufacturers:
 - a. Hager Companies: H160D
 - b. Rockwood
 - c. Trimco
- F. Back-to-Back pulls for Pocket/Barn Doors: 3" clearance from face of door
 - 1. Acceptable Manufactures:
 - a. Hager Companies: H20L
 - b. Rockwood: RM301
 - c. Trimco: 1195-3J

2.09 CLOSERS (CAST IRON BODY GRADE 1)

- A. Shall be product of one manufacturer. Unless otherwise indicated on hardware schedule, comply with manufacturer's recommendation for size of closer, depending on width of door, frequency of use, atmospheric pressure, ADAAG requirements, and fire rating.
- B. Standards: Manufacturer to be certified and or listed by the following:
 - 1. BHMA Certified ANSI A156.4 Grade 1
 - 2. ADA Compliant ANSI A117.1
 - 3. UL/cUL Listed up to 3 hours.
 - 4. UL10C Positive Pressure Rated
 - 5. UL10B Neutral Pressure Rated
- C. Material and Design:
 - 1. Provide cast iron non-handed bodies with full plastic covers.
 - 2. Closers shall have separate staked adjustable valve screws for latch speed, sweep speed, and backcheck.
 - 3. Provide Tri-Pack arms and brackets for regular arm, top jamb, and parallel arm mounting.
 - 4. One-piece seamless steel spring tube sealed in hydraulic fluid.

5. Double heat-treated steel tempered springs.
 6. Precision-machined heat-treated steel piston.
 7. Triple heat-treated steel spindle.
 8. Full rack and pinion operation.
- D. Mounting:
1. Out swing doors shall have surface parallel arm mount closers except where noted on hardware schedule.
 2. In swing doors shall have surface regular arm mount closers except where noted on hardware schedule.
 3. Provide brackets and shoe supports for aluminum doors and frames to mount fifth screw.
 4. Furnish drop plates where top rail conditions on door do not allow for mounting of closer and where backside of closer is exposed through glass.
- E. Size closers in compliance with requirements for accessibility (ADDAG). Comply with following maximum opening force requirements.
1. Interior hinged openings: 5.0 lbs.
 2. Fire rated and exterior openings shall have minimum opening force allowable by authority having jurisdiction.
- F. Fasteners: Provide self-reaming and self-tapping wood and machine screws and sex nuts and bolts for each closer.
- G. Acceptable manufactures:
1. Hager Companies: 5100 Series
 2. LCN: 4040 Series
 3. Sargent: 281 Series

2.10 PROTECTIVE TRIM

- A. Size of protection plate: Single doors, size two inches less door width (LDW) on push side of door, and one inch less on pull side of door. For pairs of doors, size one inch less door width (LDW) on push side of door, and ½ inch on pull side of door.
1. Kickplates 10" high or sized to door bottom rail height
 2. Mop Plates 4" high.
- B. Standards: Manufacturer shall meet requirements for:
1. Architectural Door Trim: ANSI/BHMA A156.6
 2. UL
- C. Material and Design:
1. 0.050" gage stainless steel
 2. Corners shall be square. Polishing lines or dominant direction of surface pattern shall run across the door width of plate.
 3. Bevel top, bottom and sides uniformly leaving no sharp edges. Edges shall be deburred.
 4. Countersink holes for screws. Screws holes shall be spaced equidistant eight inches CTC, along a centerline not over ½ inch in from edge around plate. End screws shall be a maximum of 0.53 inch from corners.
- D. UL label stamp required on protection plates when top of plate is more than 16 inches above bottom of door on fire rated openings. Verify door manufactures UL listing for maximum height and width of protection plate to be used.
- E. Acceptable Manufactures:
1. Hager Companies: 194S

2. Rockwood
3. Burns

2.11 STOPS AND HOLDERS

- A. Wall Stops: Provide door stops wherever necessary to prevent door or hardware from striking an adjacent partition or obstruction. Provide wall stops when possible. Door stops and holders mounted in concrete floor or masonry walls shall have stainless steel machine screws and lead expansion shields.
- B. Standards: Manufacturer shall meet requirements for:
1. Auxiliary Hardware: ANSI/BHMA A156.16
- C. Acceptable Manufactures:
- | | | | |
|--------------------|--------|---------|-------|
| | Convex | Concave | Floor |
| 1. Hager Companies | 232W | 236W | 242F |
| 2. Rockwood | | | |
| 3. Burns | | | |
- D. Overhead Stops and Holders: Provide overhead stop and holders for doors that open against equipment, casework sidelights and other objects that would make wall stops/holders and floor stops/holders inappropriate. Provide sex bolt attachments for mineral core wood door applications.
- E. Standards: Manufacturer shall be certified by the following:
1. Overhead Stops and Holders: ANSI/BHMA A156.8 Grade 1
- F. Acceptable Manufactures:
- | | | |
|--------------------|--------------------|----------------------|
| | Heavy Duty Surface | Heavy Duty Concealed |
| 1. Hager Companies | 7000-S | 7000-C |
| 2. Rixson | 9 Series | 6 Series |
| 3. Glynn Johnson | 90 Series | 100 Series |

2.12 DOOR GASKETING AND WEATHERSTRIP

- A. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing where indicated on hardware schedule. Provide non-corrosive fasteners for exterior applications.
1. Perimeter gasketing: Apply to head and jamb, forming seal between door and frame.
 2. Meeting stile gasketing: Fasten to meeting stiles, forming seal when doors are in closed position.
 3. Door bottoms: Apply to bottom of door, forming seal with threshold or floor when door is in closed position.
 4. Sound Gasketing: Cutting or notching for stop mounted hardware not permitted.
 5. Drip Guard: Apply to exterior face of frame header. Lip length to extend 4" beyond width of door.
- B. Standards: Manufacturer shall meet requirements for:
1. Door Gasketing and Edge Seal Systems: ANSI/BHMA A156.22
- C. Smoke-Labeled Gasketing: Comply with NFPA 105 listed, labeled, and acceptable to authorities having jurisdiction, for smoke control indicated.
1. Provide smoke labeled gasketing on 20 minute rated doors and on smoke rated doors.
- D. Fire-Rated Gasketing: Comply with NFPA 80 listed, labeled, and acceptable to Authorities Having Jurisdiction, for fire ratings indicated.

2.13 THRESHOLDS

- A. Set thresholds for exterior and acoustical openings in full bed of sealant with lead expansion shields and stainless steel machine screws complying with requirements specified in Division 7 Section “Joint Sealants”. Notched in field to fit frame by hardware installer. Refer to Drawings for special details.
- B. Standards: Manufacturer to be certified by the following:
 - 1. Thresholds: ANSI/BHMA A156.21
 - 2. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- C. Acceptable Manufactures:
 - 1. Hager Companies: 412S and 413S
 - 2. Zero
 - 3. Reese

2.14 SILENCERS

- A. Where smoke, light, or weather seal are not required, provide three silencers per single door frame, two per double door frame and four per Dutch door frame.
- B. Standards: Manufacturer shall meet requirements for:
 - 1. Auxiliary Hardware: ANSI/BHMA A156.16
- C. Acceptable Manufactures:

	Hollow Metal Frame	Wood Frame
1. Hager Companies:	307D	308D
2. Rockwood:		
3. Trimco:		

2.15 FINISHES

- A. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if within range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within range of approved Samples.
- B. Comply with base material and finish requirements indicated by ANSI/BHMA A156.18 designations in hardware schedule.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Install hardware per manufacturer’s instructions and in compliance with:
 - 1. NFPA 80.
 - 2. NFPA 105.
 - 3. ICC/ANSI A117.1.
 - 4. ANSI/BHMA A156.115 Hardware Preparation in Steel Doors and Steel Frames
 - 5. ANSI/BHMA A156.115W Hardware Preparation in Wood Doors with Wood or Steel Frames

6. DHI Publication - Installation Guide for Doors and Hardware
 7. UL10C/UBC7-2
 8. Local building code.
 9. Approved shop drawings.
 10. Approved finish hardware schedule.
- B. Do not install surface mounted items until finishes have been completed on substrates involved. Set unit level, plumb and true to line location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

3.03 FIELD QUALITY CONTROL

- A. Material supplier to schedule final walk through to inspect hardware installation ten business days before final acceptance of Owner. Material supplier shall provide a written report detailing discrepancies of each opening to General Contractor within seven calendar days of walk through.

3.04 ADJUSTMENT, CLEANING AND DEMONSTRATING

- A. Adjustment: Adjust and check each opening to ensure proper operation of each item of finish hardware. Replace items that cannot be adjusted to operate freely and smoothly or as intended for application at no cost to Owner.
- B. Cleaning: Clean adjacent surfaces soiled by hardware installation. Clean finished hardware per manufacturer's instructions after final adjustments has been made. Replace items that cannot be cleaned to manufacturer's level of finish quality at no cost to Owner.
- C. Demonstration: Conduct a training class for building maintenance personnel demonstrating the adjustment, operation of mechanical and electrical hardware. Special tools for finished hardware to be turned over and explained usage at this meeting.

3.05 PROTECTION

- A. Leave manufacturer's protective film intact and provide proper protection for all other finish hardware items that do not have protective material from the manufacture until Owner accepts Project as complete.

3.06 HARDWARE SETS

- A. Guide: Door hardware items have been placed in sets which are intended to be a guide of design, grade, quality, function, operation, performance, exposure, and like characteristics of door hardware, and may not be complete. Provide door hardware required to make each set complete and operational.
- B. Hardware schedule does not reflect handing, backset, method of fastening and like characteristics of door hardware and door operation.
- C. Review door hardware sets with door types, frames, sizes and details on drawings. Verify suitability and adaptability of items specified in relation to details and surrounding conditions.

3.07 HARDWARE SCHEDULE

HEADING 1

Door #204

Each opening to receive:

QTY	TYPE	DESCRIPTION	FINISH
2 ea.	Continuous Hinge	780-224HD	Clear

2	ea.	SVR Exit Device	4501 SVR F LBR w/fire bolt	US32D
2	ea.	Trim	45CE	US26D
2	ea.	Mortise Cylinder	Schlage to existing system	US26D
2	ea.	Closer	5100 HDCS	ALM
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
2	ea.	Mop Plate	194S 4" x 1"LDW	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal

Fill existing hinge preparations as required.

HEADING 2

Door # 226, 229

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
3	ea.	Hinges	BB1168 4.5" x 4.5"	US26D
1	ea.	Push Plate	30S 4" x 16"	US32D
1	ea.	Pull Plate	H33E 4" x 16"	US32D
1	ea.	Classroom Deadbolt	3833S less cylinder	US26D
1	ea.	Mortise Cylinder	Schlage to existing system	US26D
1	ea.	Closer	5100 MLT	ALM
1	ea.	Kick Plate	194S 10" x 2" LDW	US32D
1	ea.	Mop Plate	194S 4" x 1" LDW	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal

HEADING 3

Door #223A, 223C

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
2	ea.	Continuous Hinge	780-224HD UL-STUD	Clear
2	ea.	SVR Exit Device	4501 SVR F LBR w/fire bolt	US32D
2	ea.	Trim	45CE	US26D
2	ea.	Mortise Cylinder	Schlage to existing system	US26D
2	ea.	Closer	5100 HDCS	ALM
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
2	ea.	Mop Plate	194S 4" x 1"LDW	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal
1	set	Astragal Seal	872S x (2) door height	CLR
2	ea.	Auto Door Bottom	743S	MIL
1	ea.	Threshold	413S x 1/4" x 5"	MIL

Fill existing hinge preparations as required.

HEADING 4

Door #223B, 223D, 236B, 237B, 240B, 242B

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
6	ea.	Hinges	BB1168 4.5" x 4.5"	US26D
2	ea.	Push Plate	30S 4" x 16"	US32D
2	ea.	Pull Plate	H33E 4" x 16"	US32D
2	ea.	Closer	5100 HDHOCS	ALM
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
2	ea.	Mop Plate	194S 4" x 1"LDW	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal
1	set	Astragal Seal	872S x (2) door height	CLR
2	ea.	Auto Door Bottom	743S	MIL
1	ea.	Threshold	413S x 1/4" x 5"	MIL

HEADING 5

Door #227A

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
3	ea.	Hinges	BB1168 4.5" x 4.5"	US26D
1	ea.	Privacy Lock	ND40	US26D
1	ea.	Kick Plate	194S 10" x 2" LDW	US32D
1	ea.	Mop Plate	194S 4" x 1"LDW	US32D
1	ea.	Wall Bumper	236W	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal

HEADING 6

Door #231A

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
2	ea.	Continuous Hinge	780-224HD	Clear
2	set	Automatic Flush Bolt	296W	US26D
1	ea.	Coordinator	297D	Black
2	ea.	Mounting Brackets	297M/N	Black
1	ea.	Classroom Lock	ND75 Everest	US26D
2	ea.	Closer	5100 HDCS	ALM
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
2	ea.	Mop Plate	194S 4" x 1"LDW	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal
1	set	Astragal Seal	872S x (2) door height	CLR
2	ea.	Door Bottom	750S N	CLR
1	ea.	Threshold	412S x 1/2" x 5"	MIL

Fill existing hinge preparations as required.

HEADING 7

Door #221, 222, 232

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
3	ea.	Hinges	BB1168 4.5" x 4.5"	US26D
1	ea.	Classroom Lock	ND75 Everest	US26D
1	ea.	Kick Plate	194S 10" x 2" LDW	US32D
1	ea.	Closer	5100 HDCS	ALM
1	ea.	Gasket	721 x head and jambs	Charcoal

HEADING 8

Door #228, 244, 246, 248

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
3	ea.	Hinges	BB1168 4.5" x 4.5"	US26D
1	ea.	Classroom Lock	ND75 Everest	US26D
1	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
1	ea.	Mop Plate	194S 4" x 1" LDW	US32D
1	ea.	Closer	5100 HDCS	ALM
1	ea.	Closer	5100 HD (#228)	ALM
1	ea.	Wall Bumper	236W (#228)	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal

HEADING 9

Door #233

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
2	ea.	Continuous Hinge	780-210HD x 119"	Clear
2	ea.	Flush Bolt	282D	US26D
1	ea.	All thread	48" for top flush bolt	-
1	ea.	Storeroom Lock	ND80 Everest	US26D
1	ea.	Closer	5100 HDHO (active leaf)	ALM
1	ea.	O.H. Holder	7017 SRF	US32D
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal
1	set	Astragal Seal	872S x (2) door height	CLR
2	ea.	Door Bottom	750S N	CLR
1	ea.	Threshold	412S x 1/2" x 5"	MIL

Fill existing frame hinge preparations as required.

HEADING 10

Door #235A, 236A

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
2	ea.	Continuous Hinge	780-210HD UL-STUD (235A)	Clear
2	ea.	SVR Exit Device	4501 SVR F LBR w/fire bolt	US32D
2	ea.	Trim	45CE	US26D
2	ea.	Mortise Cylinder	Schlage to existing system	US26D
2	ea.	Closer	5100 HDCS	ALM
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
2	ea.	Mop Plate	194S 4" x 1"LDW	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal
1	ea.	Astragal Seal	872S x (2) door height	CLR
2	ea.	Door Bottom	750S N	CLR
1	ea.	Threshold	448S x 1/4" x 10"	MIL
1	ea.	Threshold Stop	484S x 1/4"	MIL

Fill existing hinge preparations as required.

HEADING 11

Door #235B, 235D, 235E

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
3	ea.	Hinges	BB1168 4.5" x 4.5"	US26D
1	ea.	Classroom Lock	ND75 Everest	US26D
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
1	ea.	Closer	5100 HDCS	ALM
1	ea.	Gasket	721 x head and jambs	Charcoal
1	ea.	Auto Door Bottom	740S	CLR
1	ea.	Threshold	448S x 1/4" x 10"	MIL

HEADING 12

Door #237A

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
2	ea.	Continuous Hinge	780-210HD	Clear
2	ea.	SVR Exit Device	4501 SVR (EXIT ONLY)	US32D
2	ea.	Closer	5100 HDCS	ALM
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal
1	set	Astragal Seal	872S x (2) door height	CLR
2	ea.	Door Bottom	750S N	CLR
1	ea.	Threshold	452S x 1/2" x 10"	MIL

1	ea.	Threshold Stop	484S x 1/4"	MIL
1	ea.	Drip Cap	810S (door width + 4")	MIL

HEADING 13

Not Used

HEADING 14

Door #239, 241A, 241B, 243

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
6	ea.	Hinges	BB1168 4.5" x 4.5"	US26D
2	ea.	Flush Bolt	282D	US26D
1	ea.	Storeroom Lock	ND80 Everest	US26D
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
2	ea.	Mop Plate	194S 4" x 1" LDW	US32D
1	ea.	Wall Stop	236W (active side)	US32D
1	ea.	O.H. Stop	7016 CON	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal
1	set	Astragal Seal	872S x (2) door height	CLR
2	ea.	Auto Door Bottom	743S	MIL
1	ea.	Threshold	413S x 1/4" x 5"	MIL

Make #'s 239 and 241B LH active, and #'s 241A and 243 RH active.

HEADING 15

Door #240A, 242A

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
6	ea.	Hinges	BB1168 4.5" x 4.5" NRP	US26D
2	ea.	SVR Exit Device	4501 SVR F LBR w/fire bolt	US32D
2	ea.	Trim	45CE	US26D
2	ea.	Mortise Cylinder	Schlage to existing system	US26D
2	ea.	Closer	5100 HDCS	ALM
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
2	ea.	Mop Plate	194S 4" x 1" LDW	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal
1	set	Astragal Seal	872S x (2) door height	CLR
2	ea.	Door Bottom	750S N	CLR
1	ea.	Threshold	412S x 1/2" x 5"	MIL

HEADING 16

Door #245

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
3	ea.	Hinges	BB1168 4.5" x 4.5"	US26D
1	ea.	Push Plate	30S 4" x 16"	US32D
1	ea.	Flush Pull	15P	US32D
1	ea.	Single Cyl. Deadbolt	3830S less cylinder	US26D
1	ea.	Mortise Cylinder	Schlage to existing system	US26D
1	ea.	Closer	5100 MLT	ALM
1	ea.	Kick Plate	194S 10" x 2" LDW	US32D
1	ea.	Mop Plate	194S 4" x 1" LDW	US32D

HEADING 17

Door #247 (Unequal pair)

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
6	ea.	Hinges	BB1168 4.5" x 4.5"	US26D
2	ea.	Auto Flush Bolt	296W	US26D
1	ea.	Classroom Lock	ND70 Everest	US26D
2	ea.	Closer	5100 HDCS	ALM
1	ea.	Coordinator	297D	PC
2	ea.	Mtg. Brackets	297M/N	PC
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
2	ea.	Mop Plate	194S 4" x 1"LDW	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal
1	set	Astragal Seal	872S x (2) door height	CLR
2	ea.	Auto Door Bottom	743S	MIL
1	ea.	Threshold	413S x 1/4" x 5"	MIL

HEADING 18

Door #230A

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
1	ea.	Continuous Hinge	780-224HD RETW	Clear
1	ea.	Continuous Hinge	780-224HD	Clear
1	ea.	Exit Device	4501 RIM ELRX	US32D
1	ea.	Exit Device	4501 RIM	US32D
2	ea.	Trim	45CE	US26D
1	ea.	Keyed Rem. Mullion	4900 KR	USP
2	ea.	Mortise Cylinder	Schlage to existing system	US26D
1	ea.	Rim Cylinder	Schlage to existing system	US26D
2	ea.	Closer	5100 HDCS	ALM
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
2	ea.	Mop Plate	194S 4" x 1"LDW	US32D

1	ea.	Gasket	721 x head and jambs	Charcoal
1	set	Astragal Seal	872S x (2) door height	CLR
2	ea.	Door Bottom	750S N	CLR
1	ea.	Threshold	412S x ½" x 5"	MIL
1	ea.	Power Supply	2902	-

Fill existing hinge preparations as required. Connect electric latch retraction to existing card reader system.

Description of Operation:

Door exit device lever trim locked or un-locked by key. When locked, access by card reader to activate electric latch retraction. Free egress at all times.

HEADING 19

Door #230B

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
2	ea.	Continuous Hinge	780-224HD	Clear
2	ea.	Dummy Exit Device	4501D	US32D
2	ea.	Dummy Trim	45DT	US26D
2	ea.	Closer	5100 HDCS	ALM
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
2	ea.	Mop Plate	194S 4" x 1" LDW	US32D
1	ea.	Gasket	721 x head and jambs	Charcoal
1	set	Astragal Seal	872S x (2) door height	CLR
2	ea.	Door Bottom	750S N	CLR
1	ea.	Threshold	412S x ½" x 5"	MIL

Fill existing hinge preparations as required.

HEADING 20

Door #354

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
3	ea.	Hinges	BB1199 4.5" x 4.5" NRP	US32D
1	ea.	Exit Device	4501 RIM Fire	US32D
1	ea.	Exit Device Trim	45NL	US26D
1	ea.	Rim Cylinder	Schlage to existing system	US26D
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
1	ea.	Closer	5100 HDCS	ALM
1	ea.	Gasket	721 x head and jambs	Charcoal
1	ea.	Auto Door Bottom	740S	CLR
1	ea.	Threshold	412S x ½" x 5"	MIL
1	ea.	Drip Cap	810S (door width + 4")	MIL

HEADING 21

Door #354A, 354B

Each opening to receive:

QTY		TYPE	DESCRIPTION	FINISH
3	ea.	Hinges	BB1168 4.5" x 4.5"	US26D
1	ea.	Exit Device	4501 RIM Fire	US32D
1	ea.	Exit Device Trim	45BE	US26D
2	ea.	Kick Plate	194S 10" x 1 1/2" LDW	US32D
1	ea.	Closer	5100 HDCS	ALM
1	ea.	Gasket	721 x head and jambs	Charcoal
1	ea.	Auto Door Bottom	740S	CLR
1	ea.	Threshold	412S x 1/2" x 5"	MIL

END OF SECTION

END OF ADDENDUM NO. 1

E

D

C

B

A

1

2

3

4

5

6

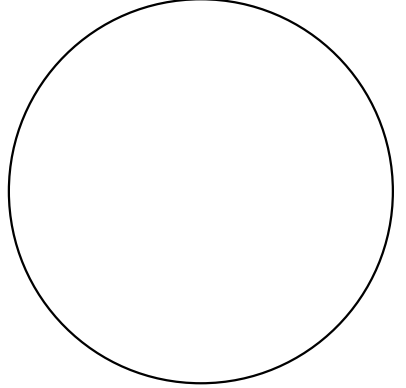


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Theater Consultant
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Cheltenham, NY 19319



PROJECT
WILMINGTON CAMPUS
RENOVATIONS

100 NORTH DUPONT ROAD
WILMINGTON, DE 19807

OWNER
RED CLAY CONSOLIDATED
SCHOOL DISTRICT
1502 SPRUCE AVENUE
WILMINGTON, DE 19805

2	06-07-13	ADDENDUM 1
1	05-28-13	ISSUED FOR BID PACK B
MARK	DATE	DESCRIPTION
PROJECT NUMBER: 1219		
FILE NAME: 1219 - CAB CALLOWAY.rvt		
DRAWN BY: SMM / DDB		
CHECKED BY: CK		
The professional services of ABHA Architects, Inc. are undertaken for and performed in the interest of RCSD. No contractual obligation is assumed by ABHA Architects, Inc. for the benefit of any other person involved in the project.		
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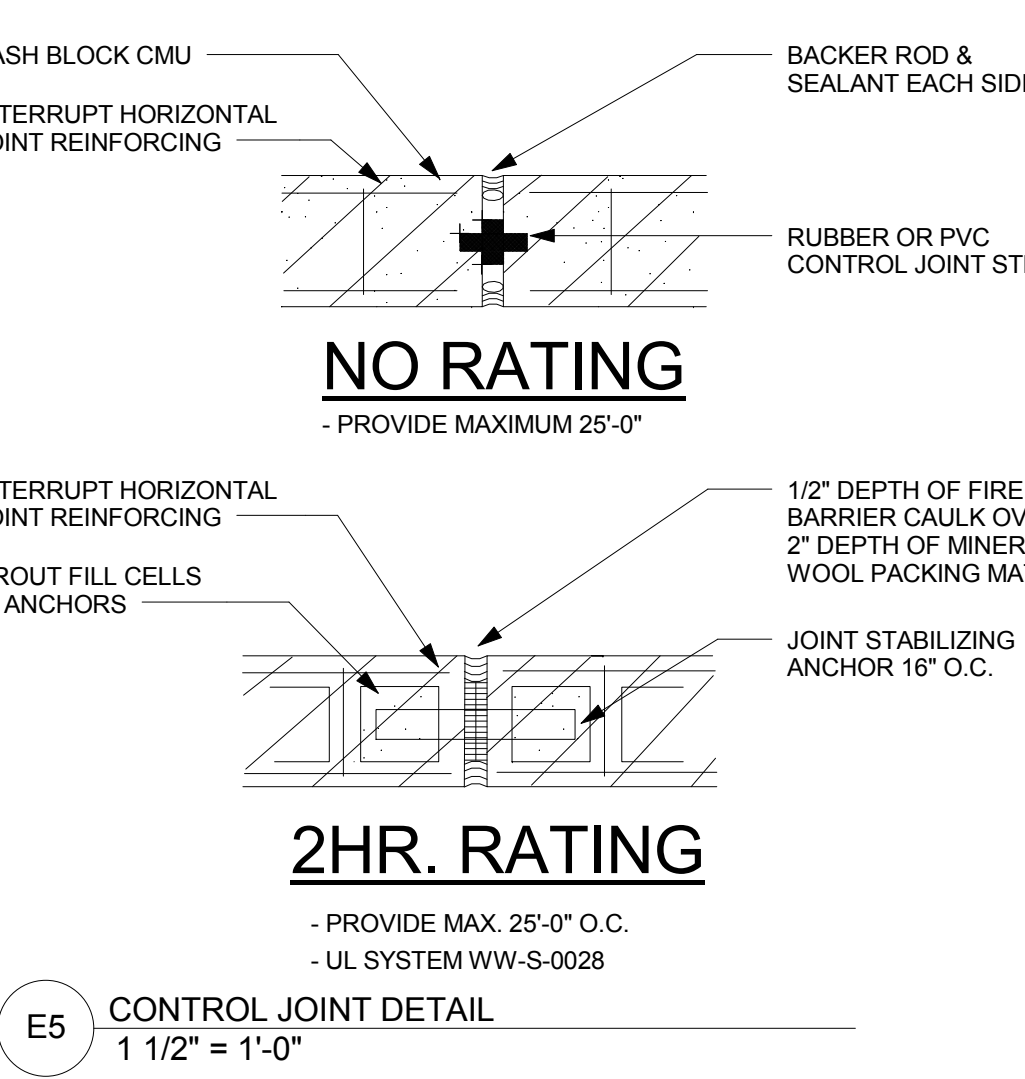
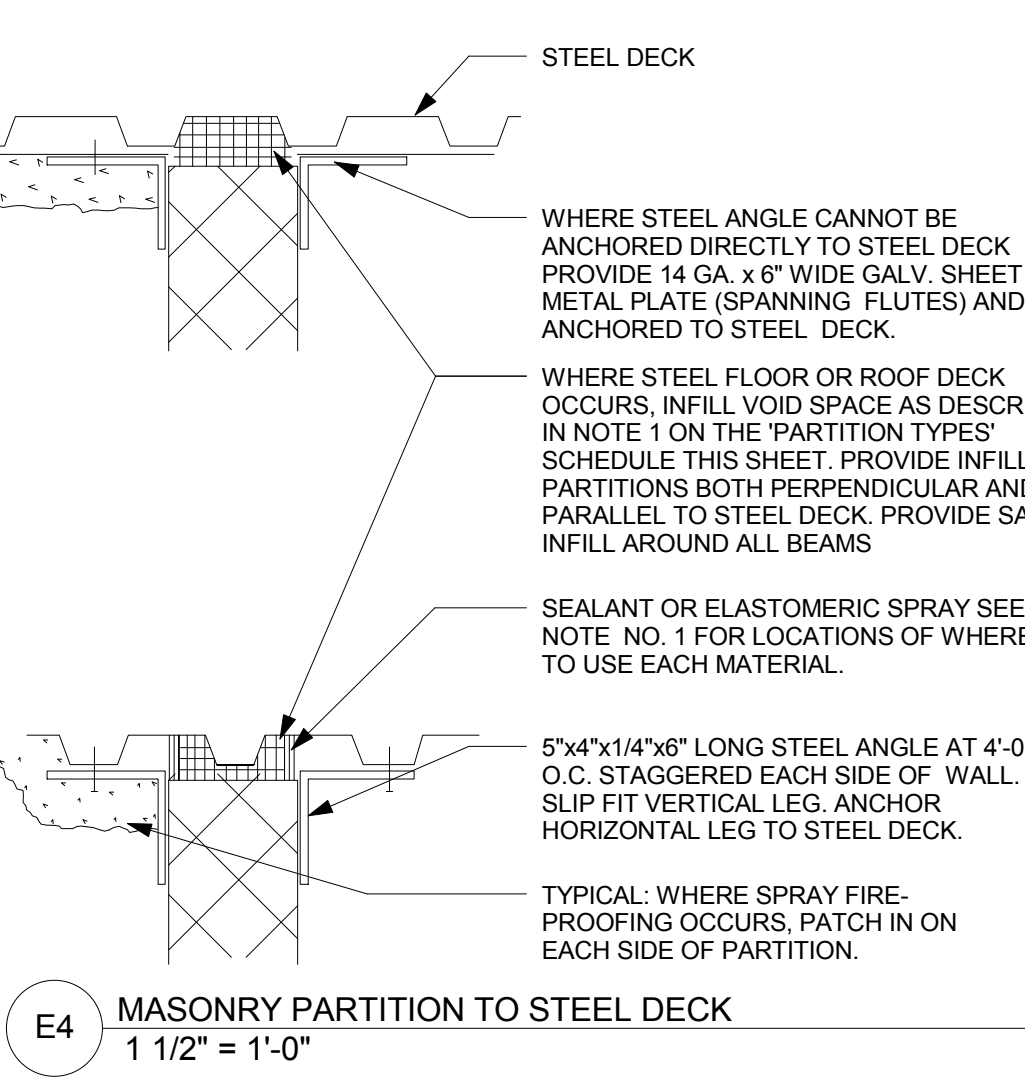
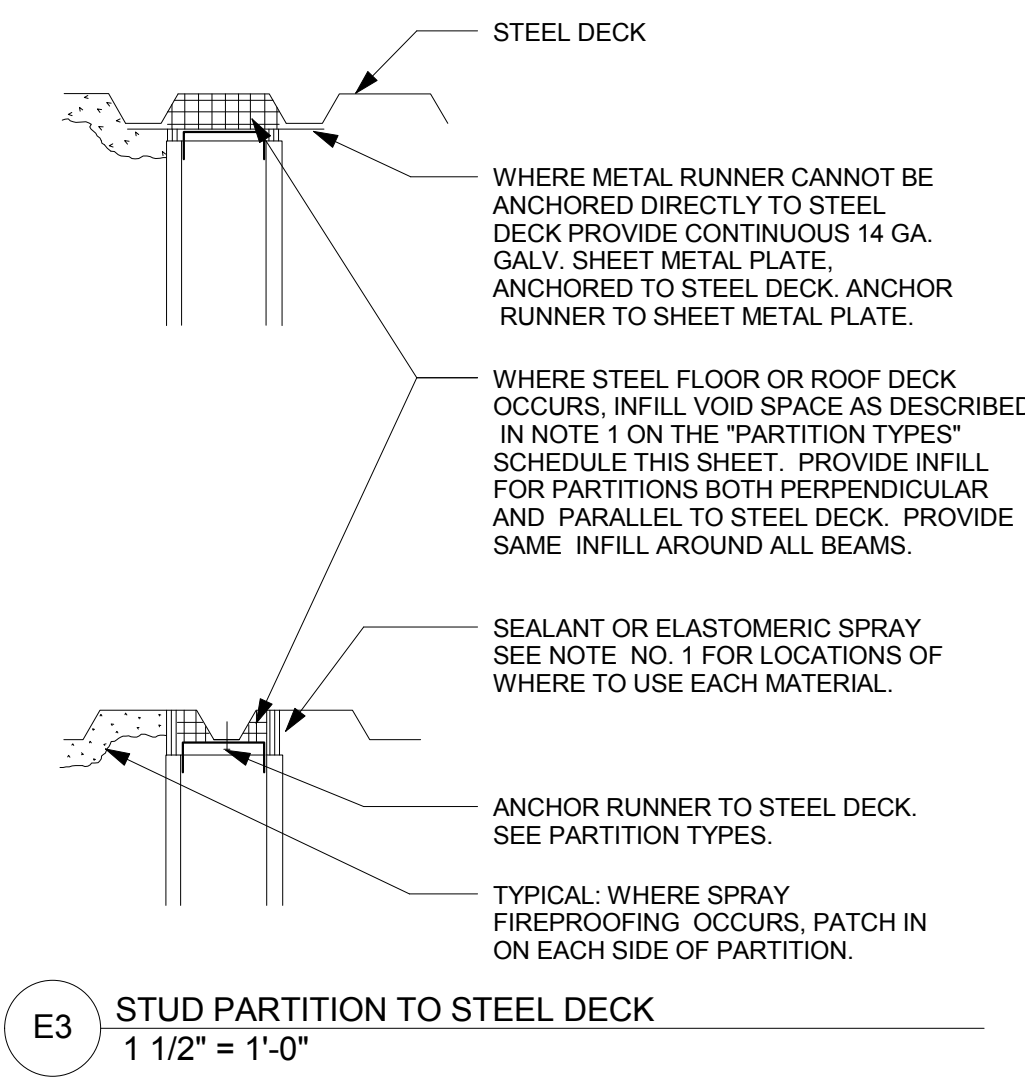
SHEET TITLE
PARTITION SCHEDULE

(BID PAC B)

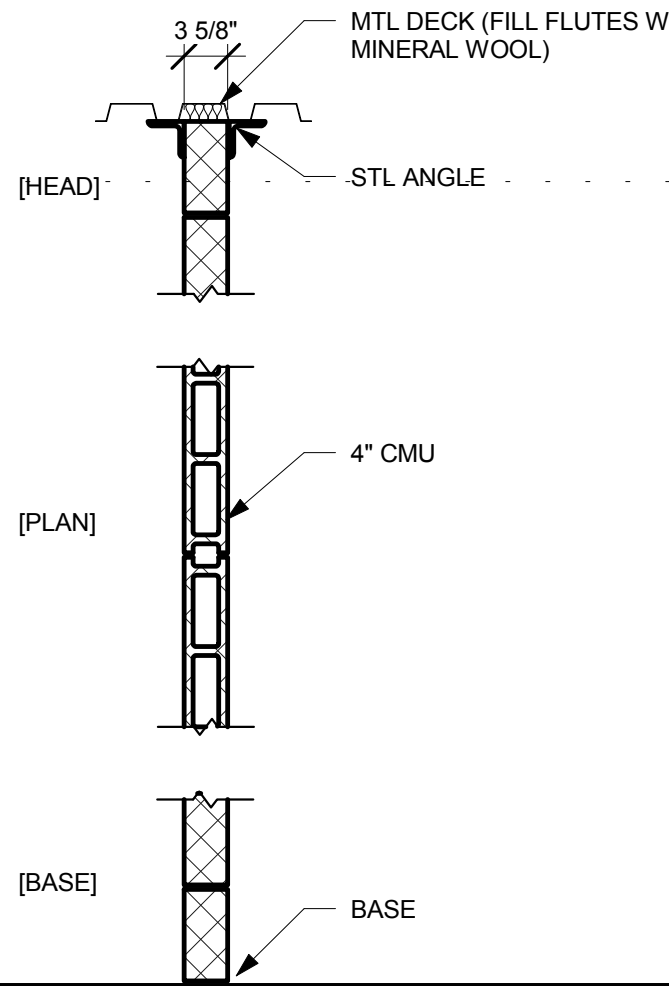
A-002

GENERAL SHEET NOTES

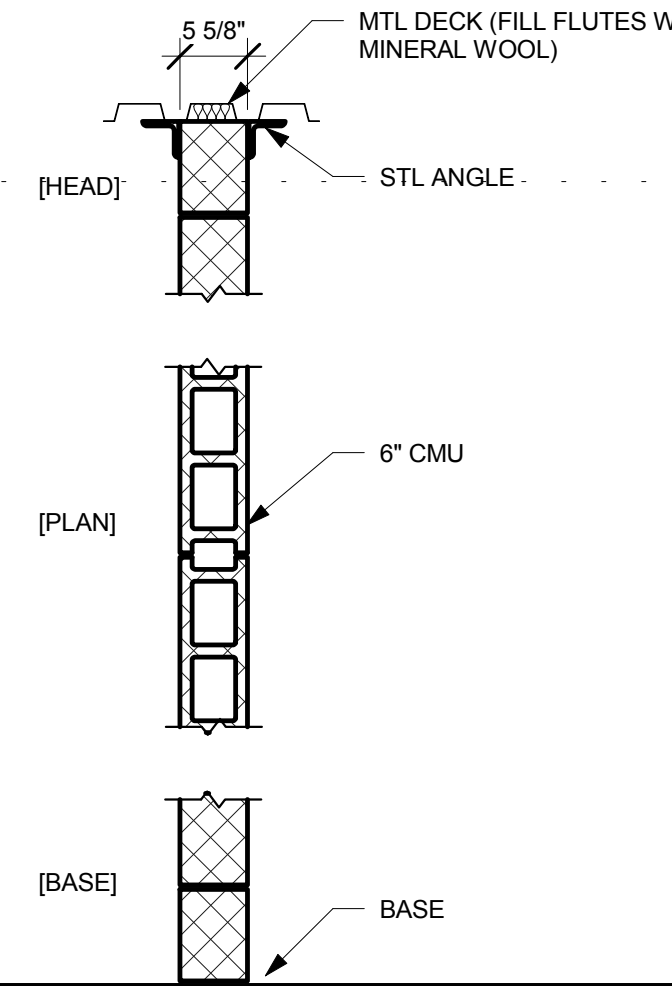
1. VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD BEFORE PROCEEDING WITH WORK.
2. ALL CONSTRUCTION SHOWN IS NEW (UNLESS OTHERWISE NOTED).
3. ALL MASONRY PARTITIONS ARE DIMENSIONED TO FACE OF PARTITION OR OPENING.
4. EXTERIOR WALLS ARE DIMENSIONED TO THE OUTSIDE FACE (UNLESS OTHERWISE NOTED).
5. TOOTH ALL NEW MASONRY INTO EXISTING TO CREATE UNIFORM APPEARANCE (UNLESS OTHERWISE NOTED).
6. SEAL ALL PENETRATIONS THRU RATED PARTITIONS AND FLOOR SLABS WITH FIRE SAFING INSULATION AND SEALANT AS REQUIRED TO MAINTAIN RATED SEPARATION.
7. SEE SHEETS G-101 FOR LOCATIONS OF RATED PARTITIONS AND SMOKE PARTITIONS.
8. ALL GROUND FACE CMU TO BE STACKED BOND CONSTRUCTION.



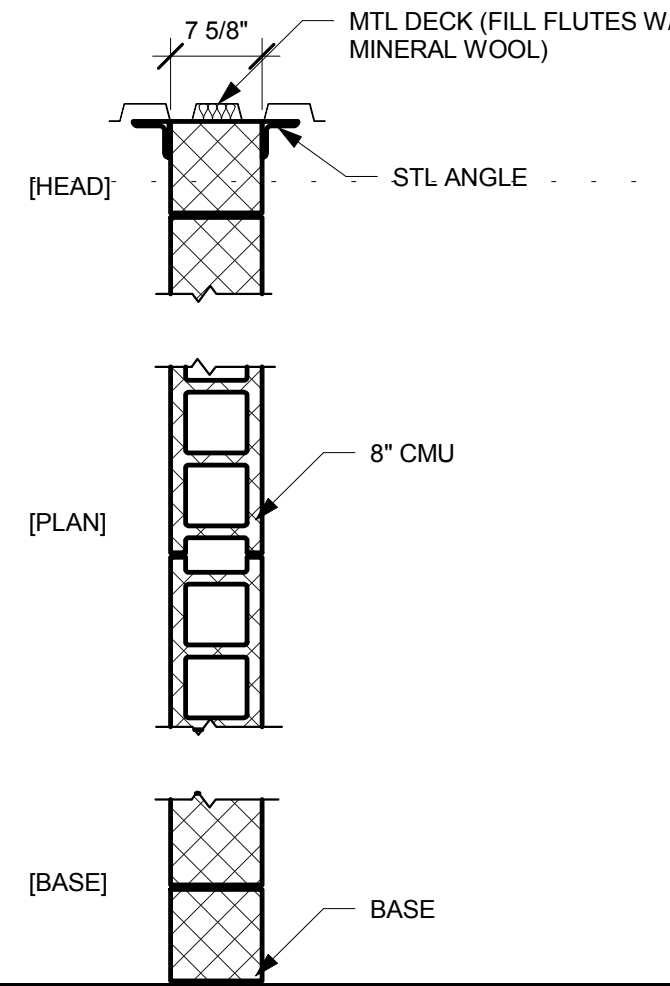
PARTITION SCHEDULE



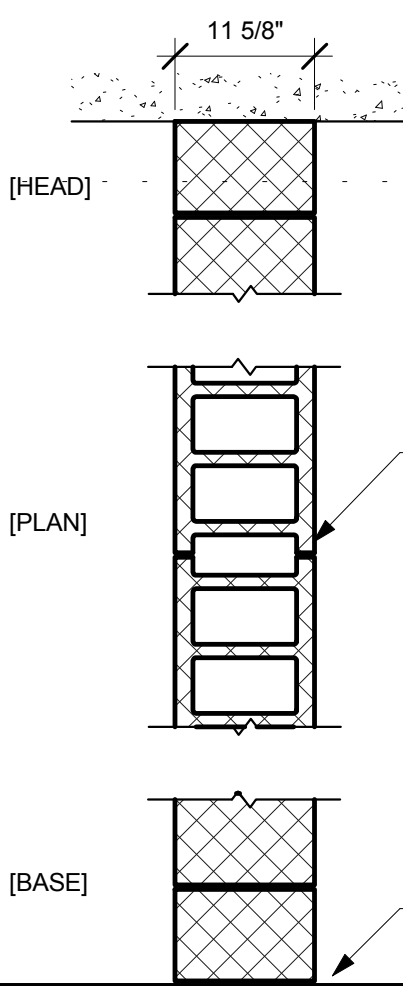
M4 PARTITION TYPE
EXTEND TO UNDERSIDE OF DECK
(SMOKE TIGHT PARTITION)



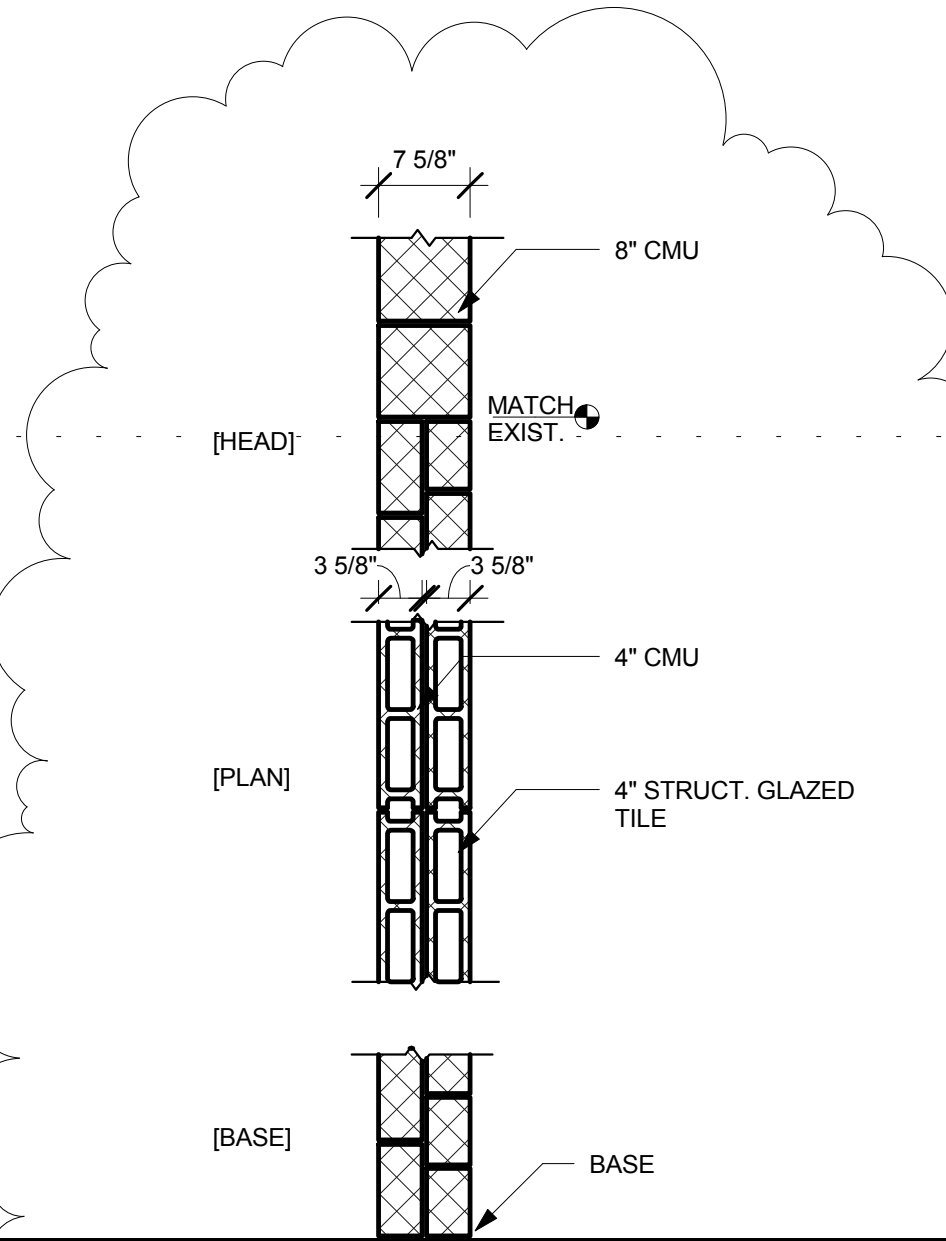
M6 PARTITION TYPE
EXTEND TO UNDERSIDE OF DECK
(SMOKE TIGHT PARTITION)



M8 PARTITION TYPE
EXTEND TO UNDERSIDE OF DECK
(SMOKE TIGHT PARTITION)

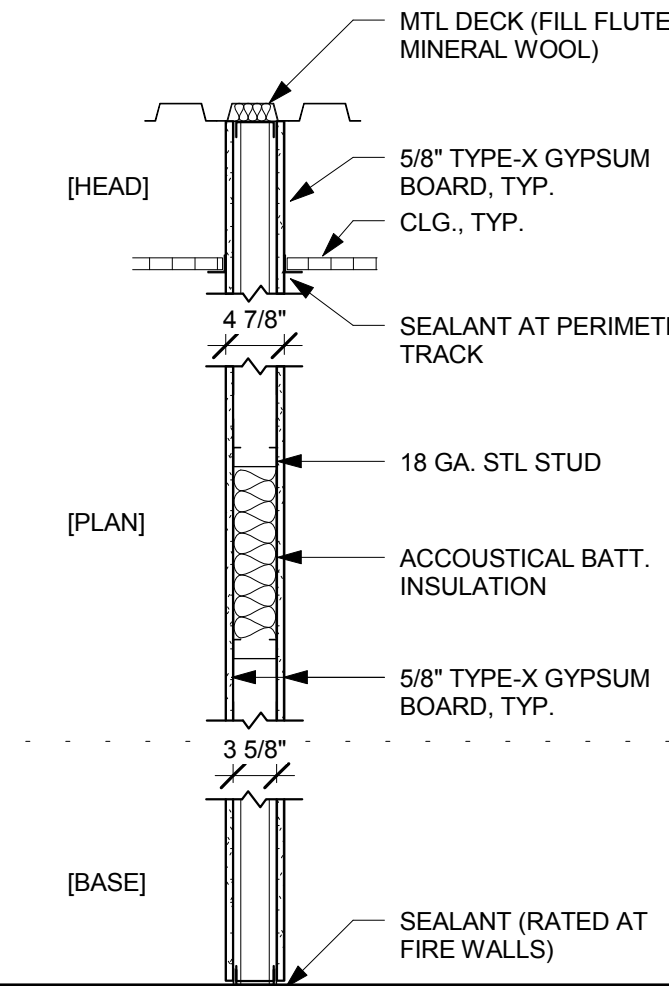


M12 PARTITION TYPE
EXTEND TO UNDERSIDE OF SLAB

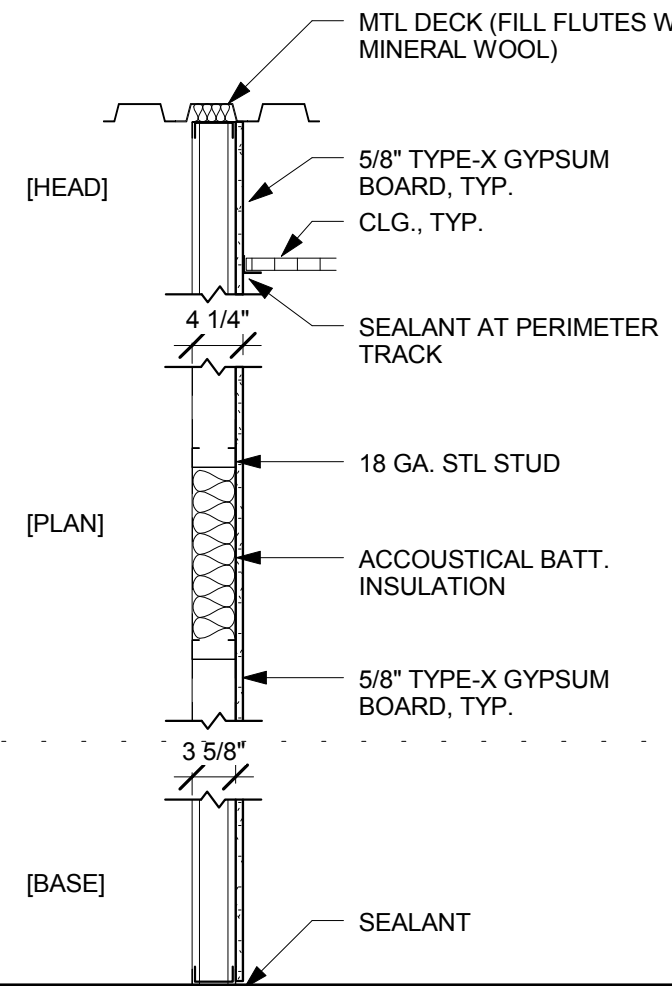


MG8 PARTITION TYPE
AS DETAILED
SMOKE TIGHT PARTITION

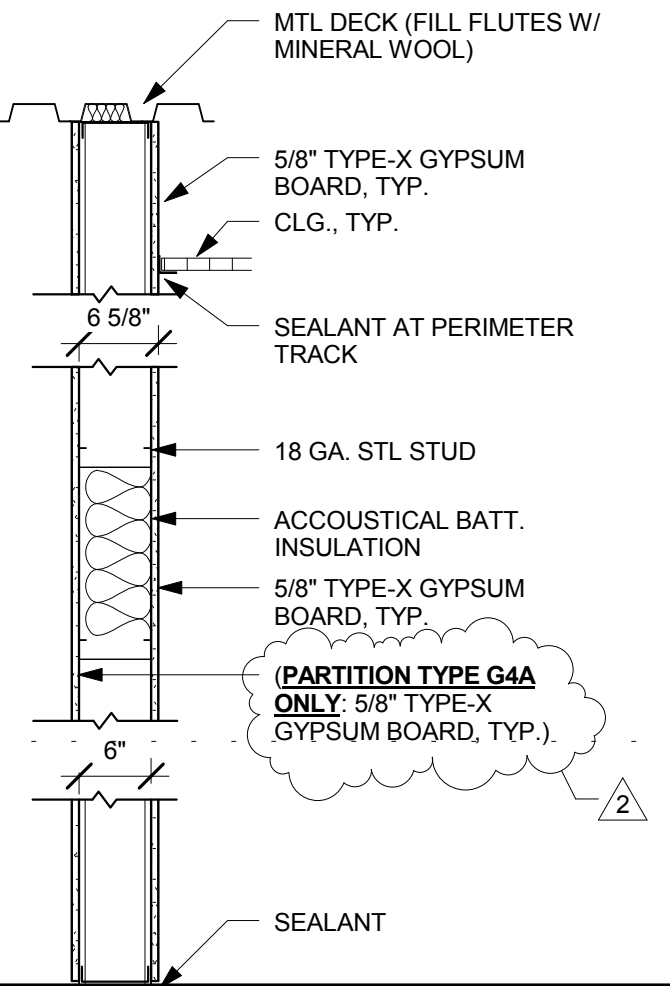
MG8F PARTITION TYPE - 1 HOUR
AS DETAILED
1 HR FIRE RATED PARTITION
UL SIM TO U906 - BASIS OF DESIGN
(SEE DETAIL E4A-002)



G1 PARTITION TYPE - 1 HOUR
EXTEND TO UNDERSIDE OF DECK
1 HR FIRE RATED PARTITION
UL U419 (SEE DETAIL E3A-002)

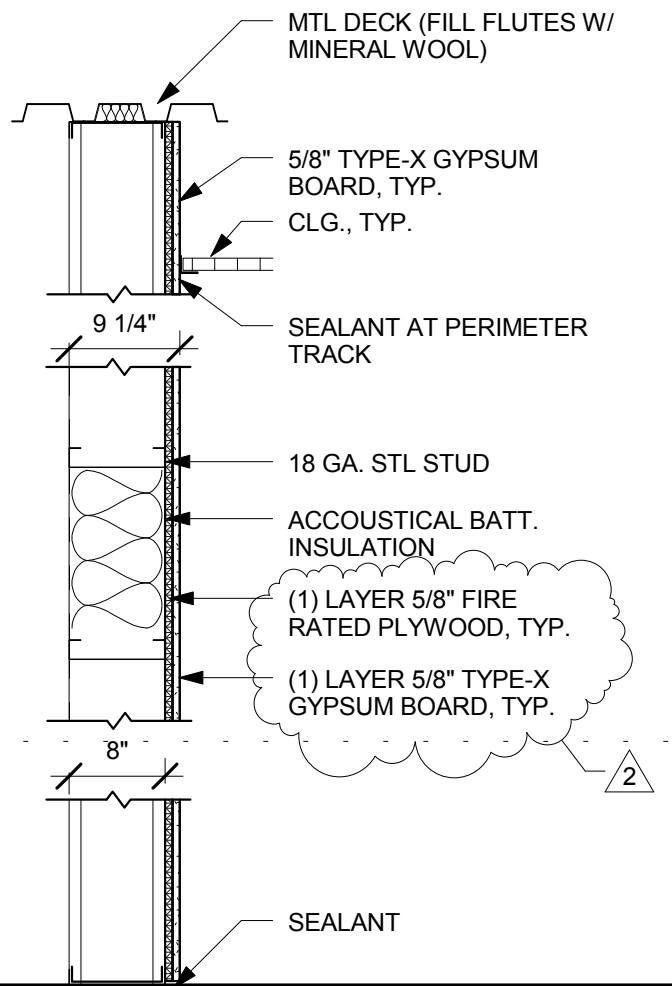


G2 PARTITION TYPE
EXTEND TO UNDERSIDE OF DECK
SMOKE TIGHT PARTITION

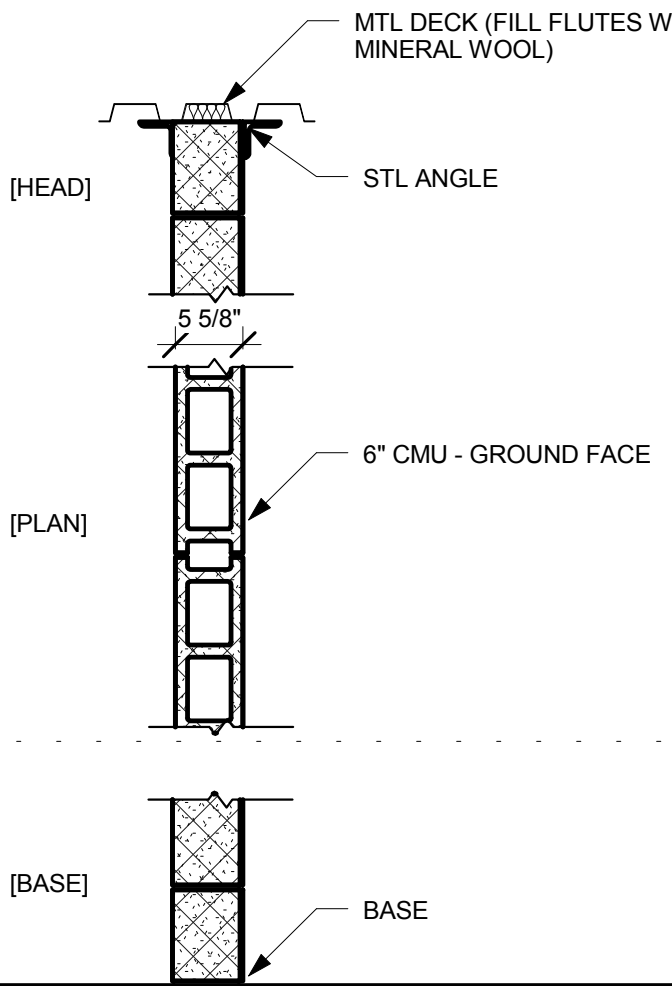


G4 PARTITION TYPE
EXTEND TO UNDERSIDE OF DECK

G4A PARTITION TYPE
AS DETAILED



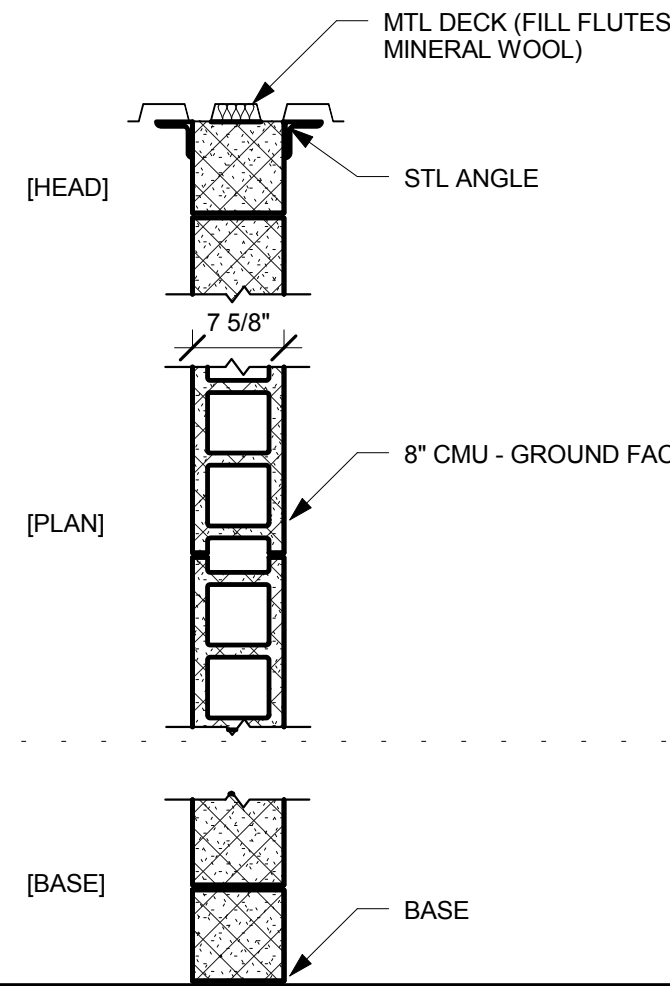
G5 PARTITION TYPE
EXTEND TO UNDERSIDE OF DECK



GF6 PARTITION TYPE
GROUND FACE BLOCK - DOUBLE SIDED
AS DETAILED

GF6A PARTITION TYPE
GROUND FACE BLOCK - SINGLE SIDED
AS DETAILED

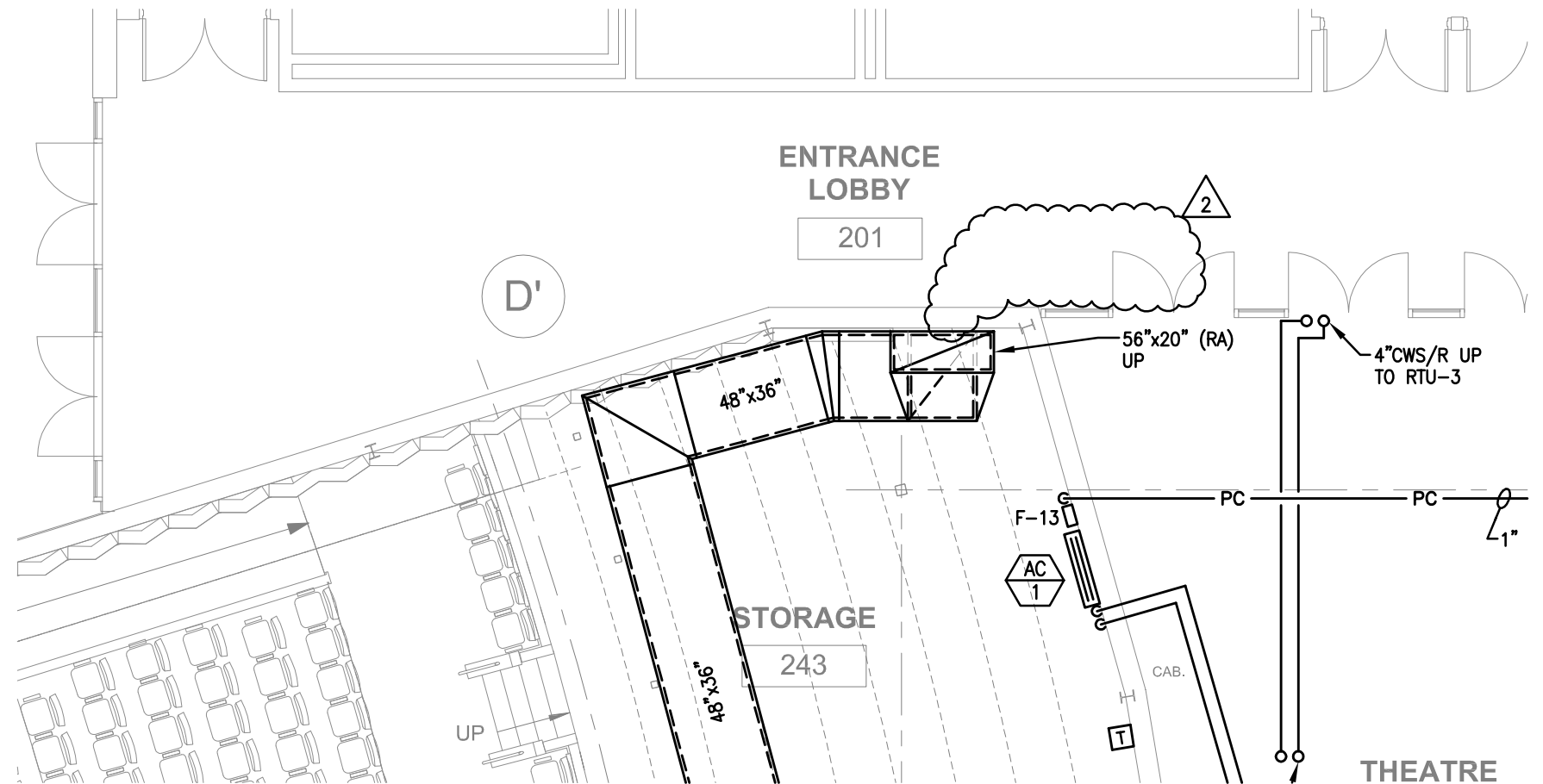
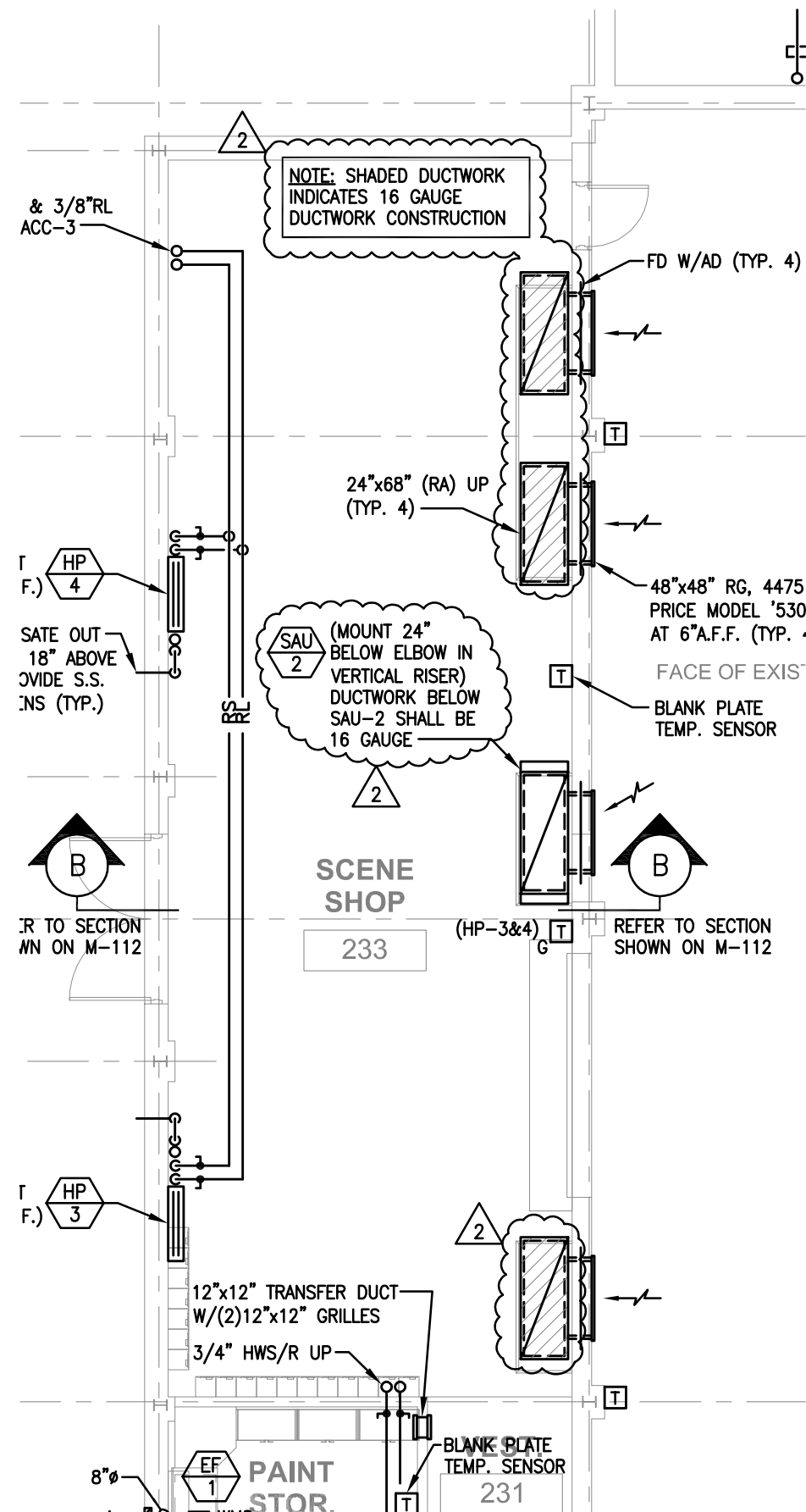
GF6F PARTITION TYPE - 1 HOUR
GROUND FACE BLOCK - SINGLE SIDED
EXTEND TO UNDERSIDE OF DECK
1 HR FIRE RATED PARTITION
UL SIM TO U906 - BASIS OF DESIGN
(SEE DETAIL E4A-002)




GF8 PARTITION TYPE
GROUND FACE BLOCK - DOUBLE SIDED
AS DETAILED

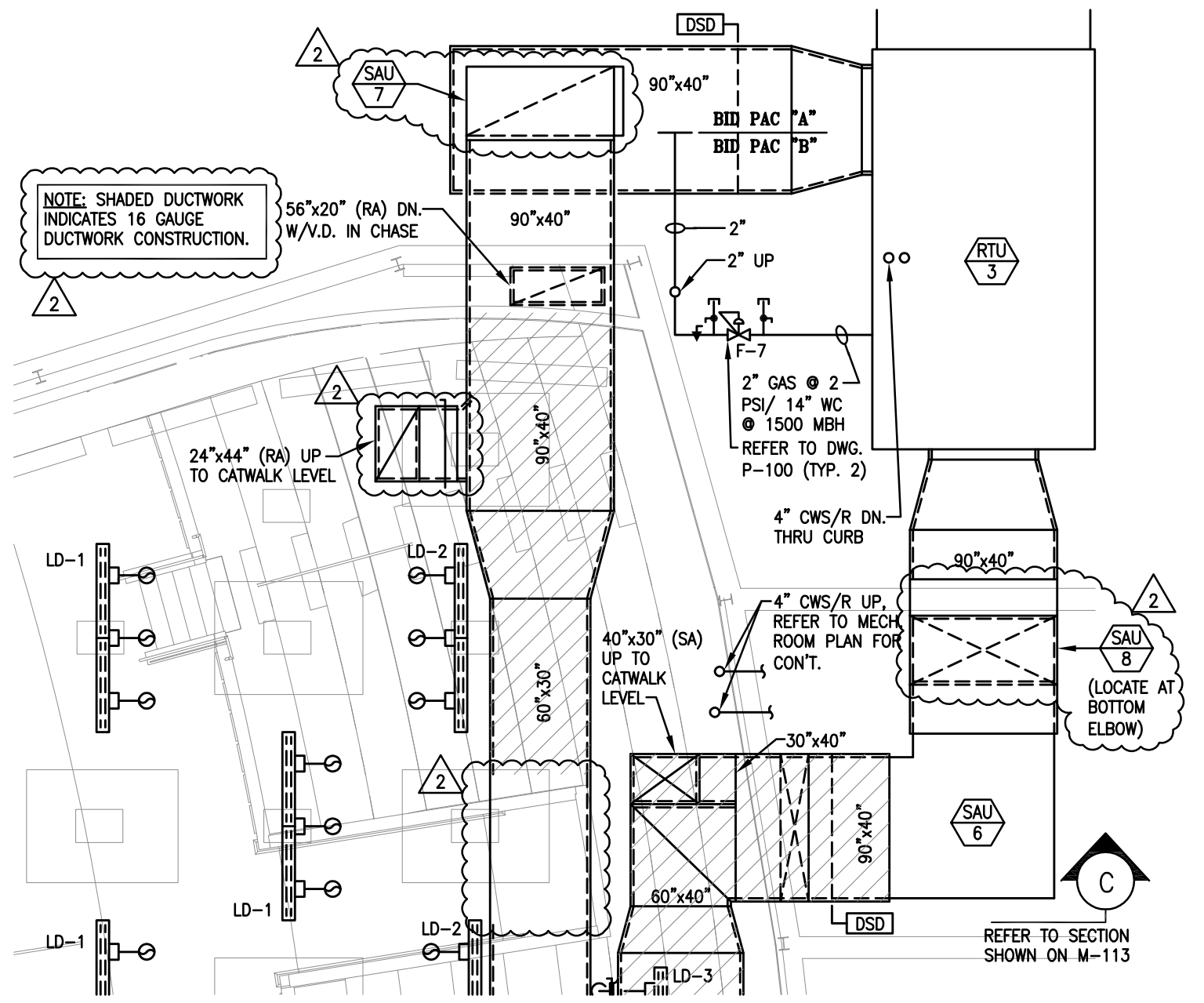
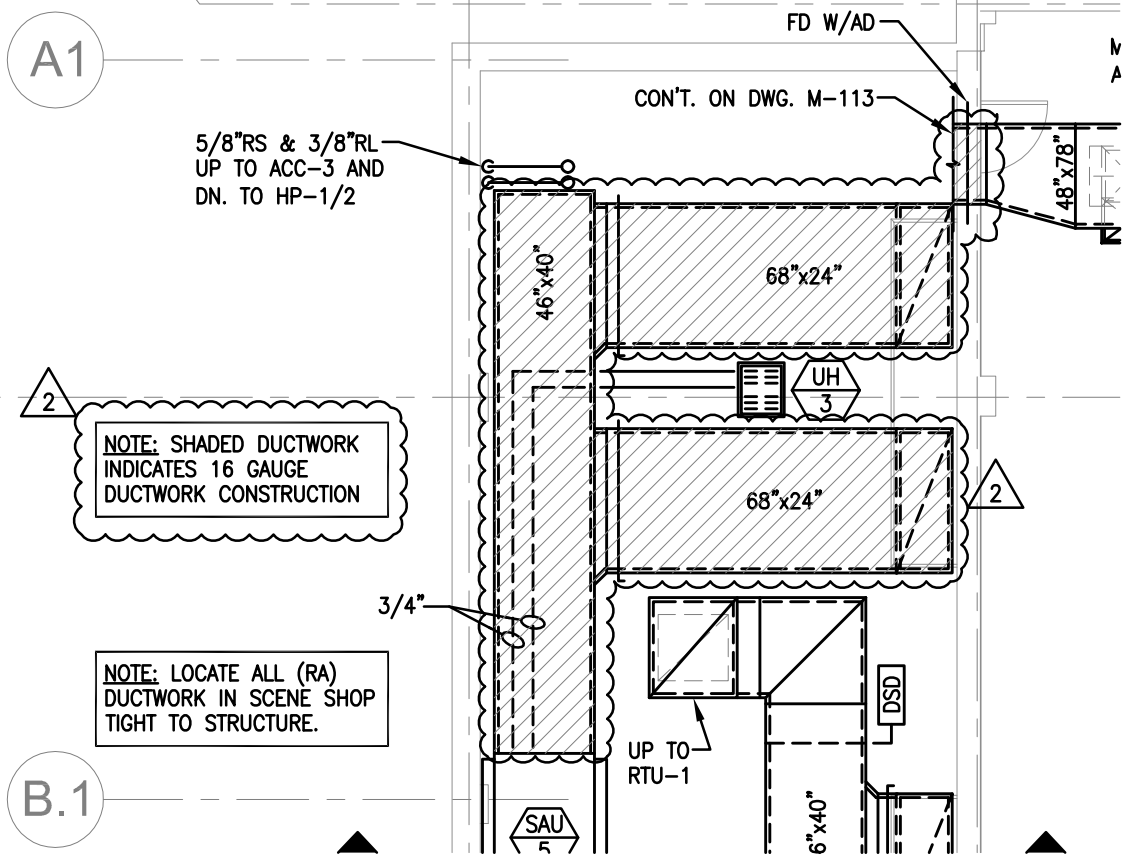
GF8A PARTITION TYPE
GROUND FACE BLOCK - SINGLE SIDED
AS DETAILED

GF8F PARTITION TYPE - 1 HOUR
GROUND FACE BLOCK - DOUBLE SIDED
EXTEND TO UNDERSIDE OF DECK
1 HR FIRE RATED PARTITION
UL SIM TO U906 - BASIS OF DESIGN
(SEE DETAIL E4A-002)



REFERENCE DWG M-111
ADDENDUM #1


	1621 N. Lincoln Street Wilmington, DE 19806 (P)302-658-6426 (F)302-658-8431		SHEET TITLE	
	abhagen@ABHA.com www.ABHA.com		SECOND FLOOR MECHANICAL PLAN	
	REV: 2 ISSUE: 06/07/13 PROJECT NO: 1219 FILE NAME: 1219 WILM CAMPUS.rvt DRAWN BY: DEG CHECKED BY: SAJ		PROJECT	
			WILMINGTON CAMPUS RENOVATIONS	
			CONSULTANT	
		FURLOW ASSOCIATES, INC. MECHANICAL/ELECTRICAL ENGINEERS		M-700



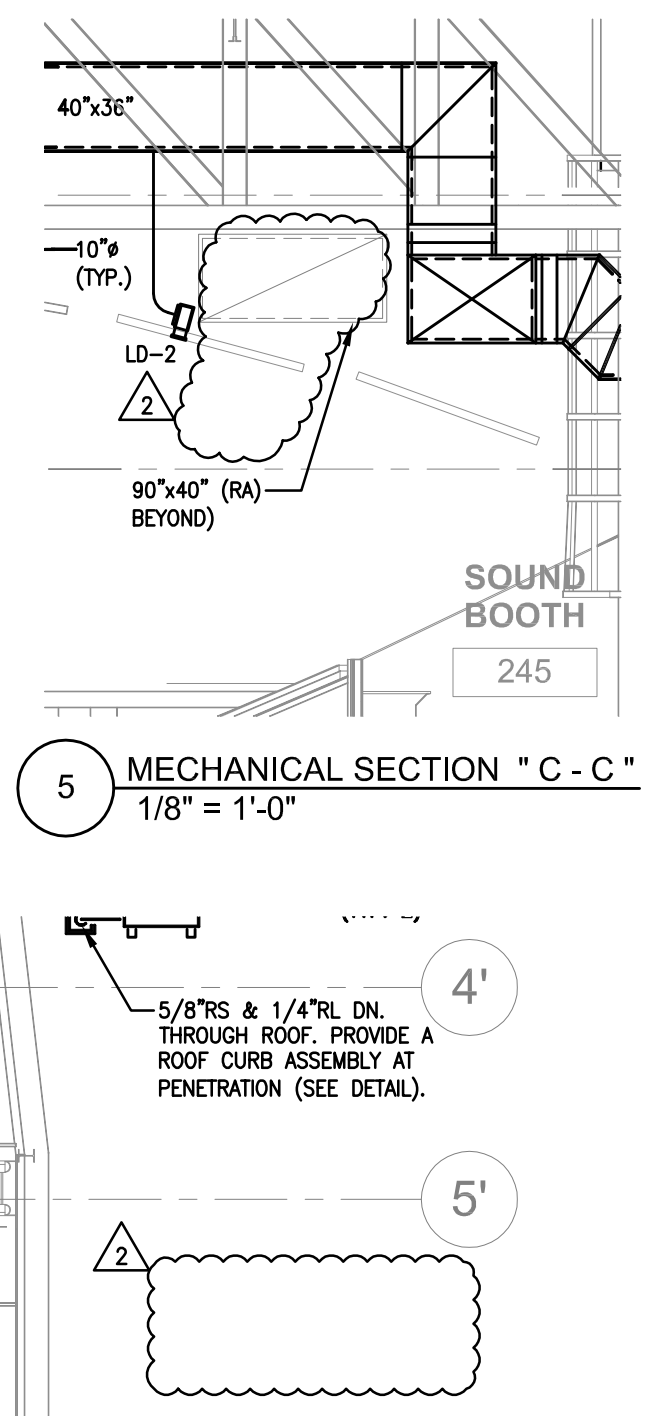
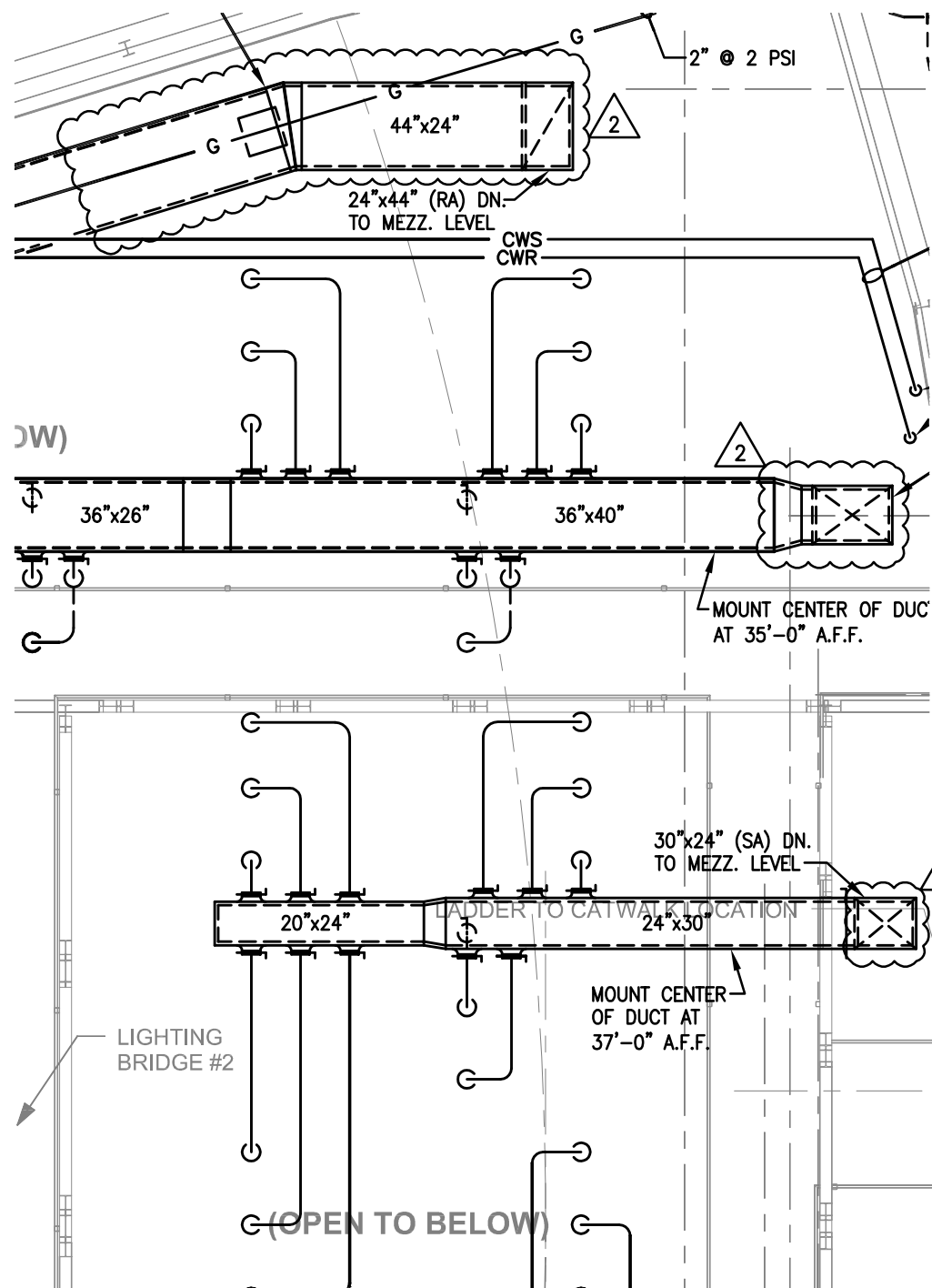
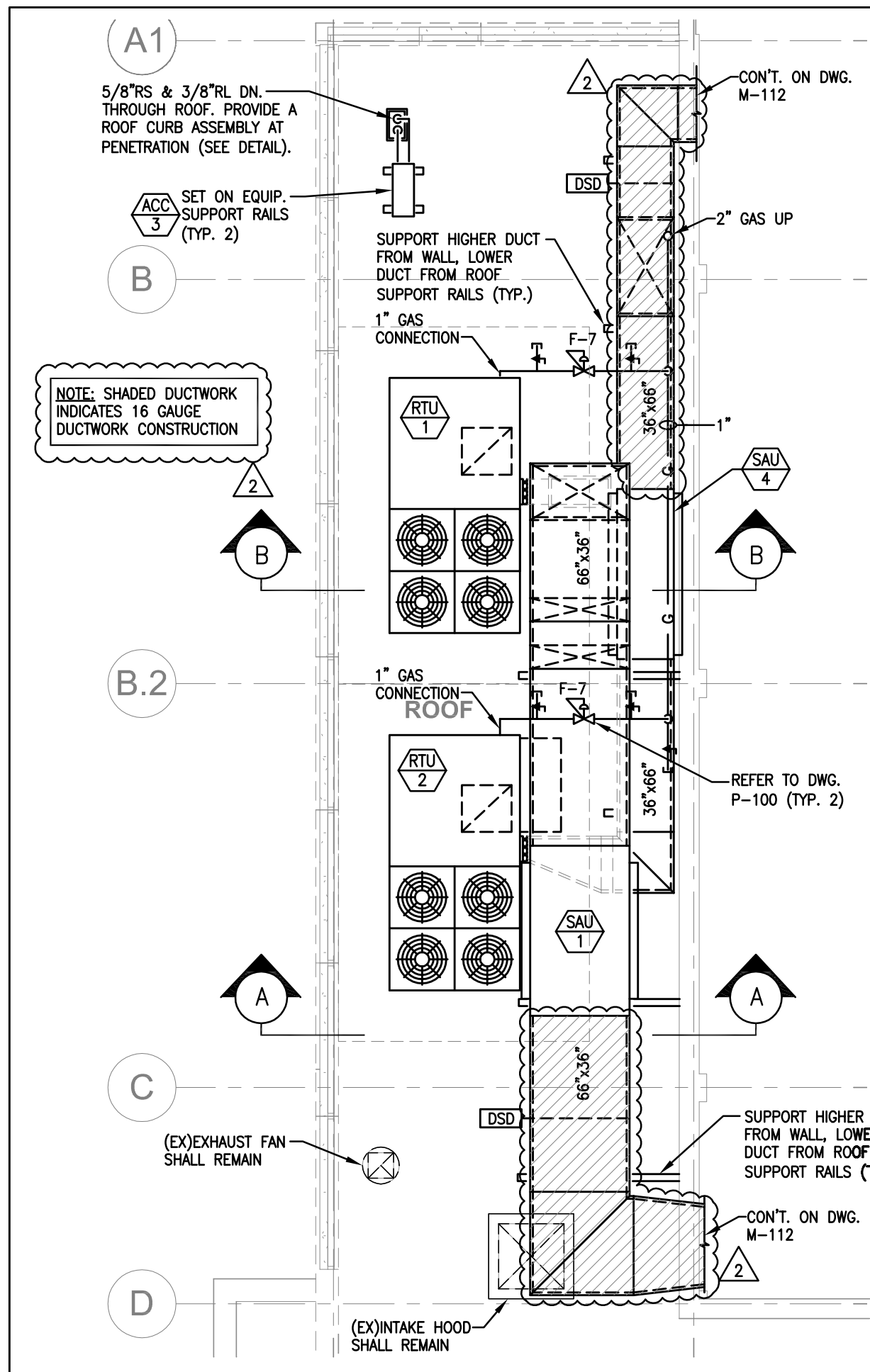
3 MECHANICAL SECTION "B - B"
1/8" = 1'-0"

1 MECHANICAL PLAN - MEZZANINE - BASE BID
1/8" = 1'-0"

REFERENCE DWG M-112
ADDENDUM #1

	1621 N. Lincoln Street Wilmington, DE 19806 (P)302-658-6426 (F)302-658-8431	
	abhagen@ABHA.com www.ABHA.com	
	REV:	2
	ISSUE:	06/07/13
	PROJECT NO:	1219
FILE NAME:	1219 WILM CAMPUS.rvt	
DRAWN BY:	DEG	
CHECKED BY:	SAJ	


SHEET TITLE	
MEZZANINE MECHANICAL PLANS	
PROJECT	
WILMINGTON CAMPUS RENOVATIONS	
CONSULTANT	FURLOW ASSOCIATES, INC.
	MECHANICAL/ELECTRICAL ENGINEERS
<div style="border: 2px solid black; padding: 5px; font-weight: bold; font-size: 1.5em;">M-701</div>	



1 MECHANICAL PLAN - CATWALKS - BASE BID
1/8" = 1'-0"

5 MECHANICAL SECTION "C - C"
1/8" = 1'-0"

REFERENCE DWG M-113
ADDENDUM #1


	1621 N. Lincoln Street Wilmington, DE 19806 (P)302-658-6426 (F)302-658-8431		SHEET TITLE CATWALKS & ROOF MECHANICAL PLANS	
	abhagen@ABHA.com www.ABHA.com		PROJECT WILMINGTON CAMPUS RENOVATIONS	
	REV: 2		CONSULTANT FURLOW ASSOCIATES, INC. MECHANICAL/ELECTRICAL ENGINEERS	
	ISSUE: 06/07/13			
	PROJECT NO: 1219			
FILE NAME: 1219 WILM CAMPUS.rvt				
DRAWN BY: DEG				
CHECKED BY: SAJ				

M-702

M-702

SOUND ATTENUATING UNIT SCHEDULE															
EQUIPMENT NUMBER	TYPE	SIZE (WxHxL)	CFM	PD (IN. W.C.)	DYNAMIC INSERTION LOSS DB OCTAVE BAND & MID-FREQUENCY								SYSTEM	MAKE & MODEL	REMARKS
					63 1	125 2	250 3	500 4	1000 5	2000 6	4000 7	8000 8			
SAU-1	RECTANGULAR EXTENDED CASING	66"x36"x120"	9,450	0.18	17	27	38	51	50	33	21	17	RTU-1(S)	PRICE MODEL 'RLX120/XF'	1
SAU-2	RECTANGULAR EXTENDED CASING	68"x24"x60"	4,475	0.07	11	20	26	36	34	22	16	13	RTU-1(R)	PRICE MODEL 'RMX60/XG'	1
SAU-3	RECTANGULAR EXTENDED CASING	46"x40"x60"	4,475	0.09	11	18	31	40	44	30	19	13	RTU-1(R)	PRICE MODEL 'RLX60/9G'	1
SAU-4	RECTANGULAR EXTENDED CASING	36"x66"x120"	9,450	0.18	17	29	38	47	43	27	20	18	RTU-2(S)	PRICE MODEL 'RLX120/ZF'	1
SAU-5	RECTANGULAR EXTENDED CASING	46"x40"x84"	8950	0.13	13	20	34	45	47	32	17	12	RTU-2(R)	PRICE MODEL 'RMX84/9F'	1
SAU-6	ELBOW SILENCER	90"x40"x120"	20,000	0.05	10	13	16	24	27	30	29	24	RTU-3(S)	PRICE MODEL 'ERM75/5B'	1
SAU-7	ELBOW SILENCER	40"x90"x120"	20,000	0.11	13	22	41	54	55	50	42	33	RTU-3(R)	PRICE MODEL 'ERM120/4D'	1
SAU-8	ELBOW SILENCER	40"x90"x120"	20,000	0.05	10	8	25	47	45	46	39	29	RTU-3(S)	PRICE MODEL 'RMX72/8G'	1
NOTES: 1. ATTENUATOR SHALL BE PROVIDED WITH 16 GAUGE CASING, 22 GAUGE PERFORATED LINER, GLASS FIBER ACOUSTIC MEDIA, FIBERGLASS CLOTH LINER AND SLIP INLET & OUTLET CONNECTIONS.															

REFERENCE DWG M-301
ADDENDUM #1



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REV: 2

ISSUE: 06/07/13

PROJECT NO: 1219

FILE NAME: 1219 WILM CAMPUS.rvt

DRAWN BY: DEG

CHECKED BY: SAJ

SHEET TITLE

MECHANICAL SCHEDULES

PROJECT

WILMINGTON CAMPUS RENOVATIONS

CONSULTANT

FURLOW ASSOCIATES, INC.
MECHANICAL/ELECTRICAL ENGINEERS

M-703