

ADDENDUM #1
ISSUE DATE: MARCH 7, 2024

RE: UW-Superior NERR Building Addition
UWSA #M-22-001 | UW-Superior 6540-4565
HGA Commission Number 4200-023-00

BID OPENING: 2:00 P.M., THURSDAY, MARCH 21, 2024

FROM: Hammel, Green and Abrahamson, Inc.
333 East Erie Street
Milwaukee, WI 53202

TO: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Contract Documents dated January 9, 2024, as noted below. Acknowledge receipt of this Addendum by inserting the number and issue date of this addendum in the blank space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of sixteen (16) pages; this page, three (3) drawings, and two (2) specification sections attached.

CHANGES TO DRAWINGS

1. A101 – Demolition Plan – Level 01
 - a. Note Added
2. A202 – Overall Floor Plan – Roof
 - a. Note Added
3. A462 – Exterior Details
 - a. Detail 10 Added

CHANGES TO SPECIFICATIONS

1. Section 07 21 00 Thermal Insulation
 - a. See attached spec section for revisions.
2. Section 08 71 00 Door Hardware
 - a. See attached spec section for revisions.

END OF ADDENDUM #1

Hammel, Green and Abrahamson, Inc. Architects and Engineers
333 East Erie Street
Milwaukee, WI 53202

For the Board of Regents of the University of Wisconsin
On Behalf of the University of Wisconsin – Madison
1860 Van Hise Hall, 1220 Linden Drive
Madison, Wisconsin 53703

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GENERAL NOTES - DEMOLITION PLAN

- A. COORDINATE EXTENT OF DEMOLITION WITH REQUIREMENTS FOR NEW WORK.
- B. REMOVE EXISTING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, FLOOR FINISHES, WALLS, CEILINGS, WALL BASE, AND OTHER EXISTING CONSTRUCTION AS INDICATED OR REQUIRED FOR NEW WORK, UNLESS NOTED OTHERWISE.
- C. REMOVE WALLS INCLUDING WALL MATERIALS INCLUDING INTEGRAL BASES, DOORS, DOOR FRAMES AND ASSOCIATED HARDWARE AND THRESHOLDS, UNLESS OTHERWISE INDICATED.
- D. REMOVE PARTITIONS COMPLETELY TO UNDERSIDE OF STRUCTURAL COMPONENTS ABOVE AND TO TOP OF FLOOR STRUCTURAL COMPONENTS AT BASE. DO NOT LEAVE SECTIONS OR MATERIALS OF WALL ASSEMBLIES IN PLACE.
- E. AT SIDES OF WALLS, THAT ABUT WALLS TO REMAIN, CUT BACK AT LEAST 1 INCH (25 MM) BEYOND FACE OF FINISH OF WALL TO REMAIN TO FACILITATE SUBSEQUENT PATCHING AND NEW CONSTRUCTION.
- F. COMPLETELY REMOVE FINISHES, SUBBASE MATERIALS AND STRUCTURAL FRAMING MATERIALS TO LINES INDICATED OR REQUIRED FOR NEW WORK.
- G. EXISTING ITEMS TO BE SALVAGED FOR REUSE IN NEW WORK:
 - A. SALVAGE EXISTING FURNANCE AND A/C CONDENSER IN THE EXISTING CLOSET, WHICH IS SCHEDULED TO BE DEMOLISHED. TIMING OF THIS WORK TO BE SCHEDULED WITH OWNER AND ARCHITECT. HEAT MUST BE AVAILABLE IN THE EXISTING BUILDING AT ALL TIMES IF OUTSIDE TEMPERATURE IS BELOW 65 DEGREES.
- H. EXISTING UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS, ALONG THE EXISTING EXTERIOR WALL CONNECTING OLD AND NEW, TO BE RELOCATED. SEE MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
- I. RELOCATE EXISTING WORK SERVING OCCUPIED PORTIONS OF THE BUILDING AS REQUIRED TO MAINTAIN SERVICE TO OCCUPIED AREAS AND TO ACCOMMODATE NEW WORK.
- J. REMOVE AND CAP PORTIONS OF EXISTING UTILITIES INDICATED TO BE DEMOLISHED, AS REQUIRED, TO ACCOMMODATE NEW WORK, INCLUDING SURFACE-MOUNTED ELECTRICAL CONDUIT, DEVICES AND LIGHT FIXTURES, RADIATORS, RADIATOR COVERS, PLUMBING FIXTURES AND ASSOCIATED PIPING.
- K. REMOVE CEILINGS INDICATED TO BE DEMOLISHED INCLUDING INTEGRAL HANGERS, SUPPORTS, ANCHORS AND MATERIALS OR ASSEMBLIES ATTACHED TO CEILING CONSTRUCTION.
- L. REMOVE SUSPENDED CEILINGS TO UNDERSIDE OF STRUCTURE OR ORIGINAL PLASTER OR GYPSUM BOARD CEILING SURFACES.
- M. MAINTAIN EGRESS FROM EXISTING OCCUPIED SPACES AND SURROUNDING BUILDING AREAS AS INDICATED AND AS REQUIRED BY AUTHORITIES HAVING JURISDICTION. MAINTAIN EGRESS FROM EXISTING OCCUPIED SPACES AND SURROUNDING BUILDING AREAS AS INDICATED AND AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
- N. PROVIDE AND MAINTAIN FIRE EXTINGUISHERS IN AREA OF WORK, IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
- O. COORDINATE UTILITY INTERRUPTIONS WITH OWNER. PROVIDE AT LEAST 48 HOURS WRITTEN NOTICE TO OWNER BEFORE UTILITY INTERRUPTIONS. OBTAIN OWNER'S WRITTEN APPROVAL OF INTERRUPTIONS BEFORE PROCEEDING.
- P. COORDINATE OPERATIONS THAT MAY RESULT IN HIGH LEVELS OF NOISE AND VIBRATION, ODORS, OR OTHER DISRUPTIONS TO OCCUPANCY WITH OWNER. OBTAIN OWNER'S WRITTEN PERMISSION BEFORE PROCEEDING.
- Q. PROVIDE TEMPORARY BARRIERS AND ENCLOSURES AS REQUIRED TO PROTECT MATERIALS AND PEOPLE. PREVENT DUST, FUMES, AND ODORS FROM ENTERING OCCUPIED AREAS. MAINTAIN AND RELOCATE TEMPORARY BARRIERS AND ENCLOSURES AS REQUIRED BY THE PROGRESS OF THE WORK. REMOVE TEMPORARY BARRIERS AND ENCLOSURES AT COMPLETION OF WORK.
- R. PRIOR TO STARTING DEMOLITION, VERIFY EXISTING CONDITIONS AND DIMENSIONS. COORDINATE EXTENT OF DEMOLITION WORK AND EXISTING CONSTRUCTION TO REMAIN WITH NEW WORK. NOTIFY ARCHITECT OF CONFLICTS OR DISCREPANCIES.
- S. REFER TO DISCIPLINE-SPECIFIC DRAWINGS FOR RELATED FIRE SUPPRESSION, PLUMBING, HEATING VENTILATION AND AIR CONDITIONING, ELECTRICAL, COMMUNICATIONS, AND ELECTRONIC SAFETY AND SECURITY SYSTEM DEMOLITION WORK.



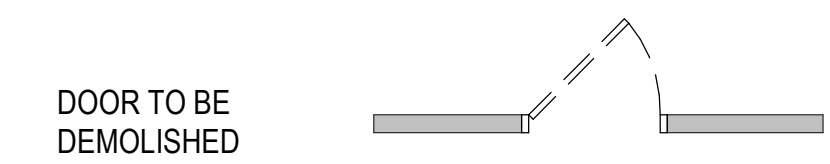
KEYNOTES

D1	DEMO WALL FROM THE EXTERIOR TO THE STUD
D2	DEMO EXISTING CLOSET, SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION/TIMING.
D3	DEMO EXISTING DOOR AND FRAME

DEMOLITION PLAN LEGEND

SEE A010 FOR ALL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

(E) CONSTRUCTION TO REMAIN	
0 ZERO HOUR	
1 (E) ONE HOUR RATED	
2 (E) TWO HOUR RATED	
3 THREE HOUR RATED	
4 FOUR HOUR RATED	
(E) CONSTRUCTION TO BE REMOVED	
TEMPORARY BARRIER	



HGA
 333 East Erie Street
 Milwaukee, Wisconsin 53202
 Telephone 414.278.8200

STRUCTURAL ENGINEER
 MECHANICAL/ELECTRICAL/
 PLUMBING ENGINEER
 CIVIL ENGINEER

UNIVERSITY OF WISCONSIN - SUPERIOR

LAKE SUPERIOR NERR ADMINISTRATIVE ADDITION

UWSA PROJECT NUMBER: M-22-001
 UW-SUPERIOR NUMBER: 6540-4565
 14 MARINA DRIVE
 SUPERIOR, WI 54880

NO	DESCRIPTION	DATE
1	ADD 1	3/7/2024

ISSUANCE HISTORY - THIS SHEET
 HGA NO: 4200-023-00

DEMOLITION PLAN - LEVEL 01

DATE: JANUARY 9, 2024

BID DOCUMENTS

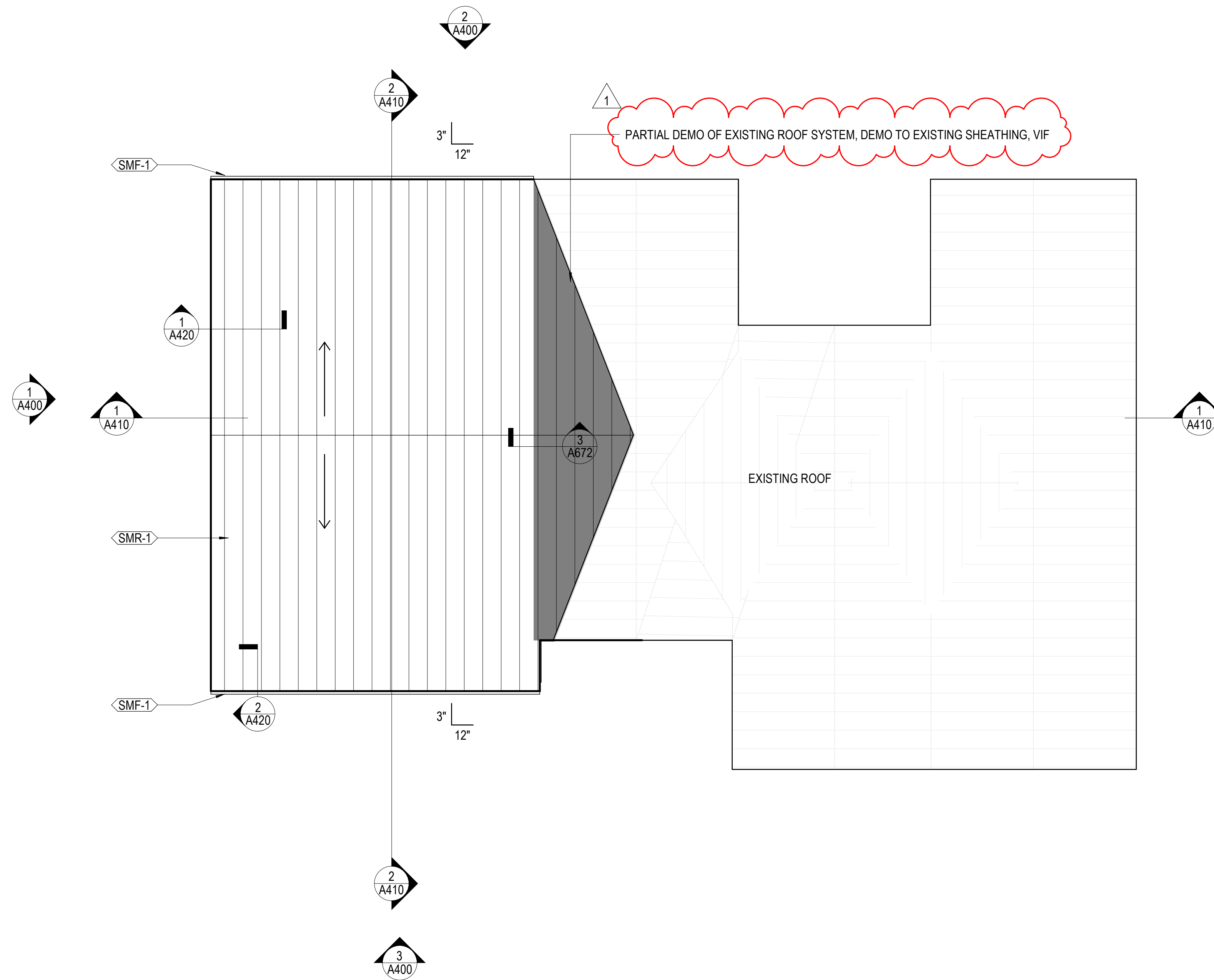
A101

UNIVERSITY OF WISCONSIN - SUPERIOR

LAKE SUPERIOR NERR ADMINSTRATIVE ADDITION

UWSA PROJECT NUMBER:
M-22-001
UW-SUPERIOR NUMBER:
6540-4565

14 MARINA DRIVE
SUPERIOR, WI 54880



1 OVERALL FLOOR PLAN - ROOF
1/8" = 1'-0"

NO	DESCRIPTION	DATE
1	ADD 1	3/7/2024

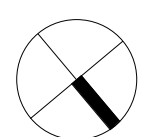
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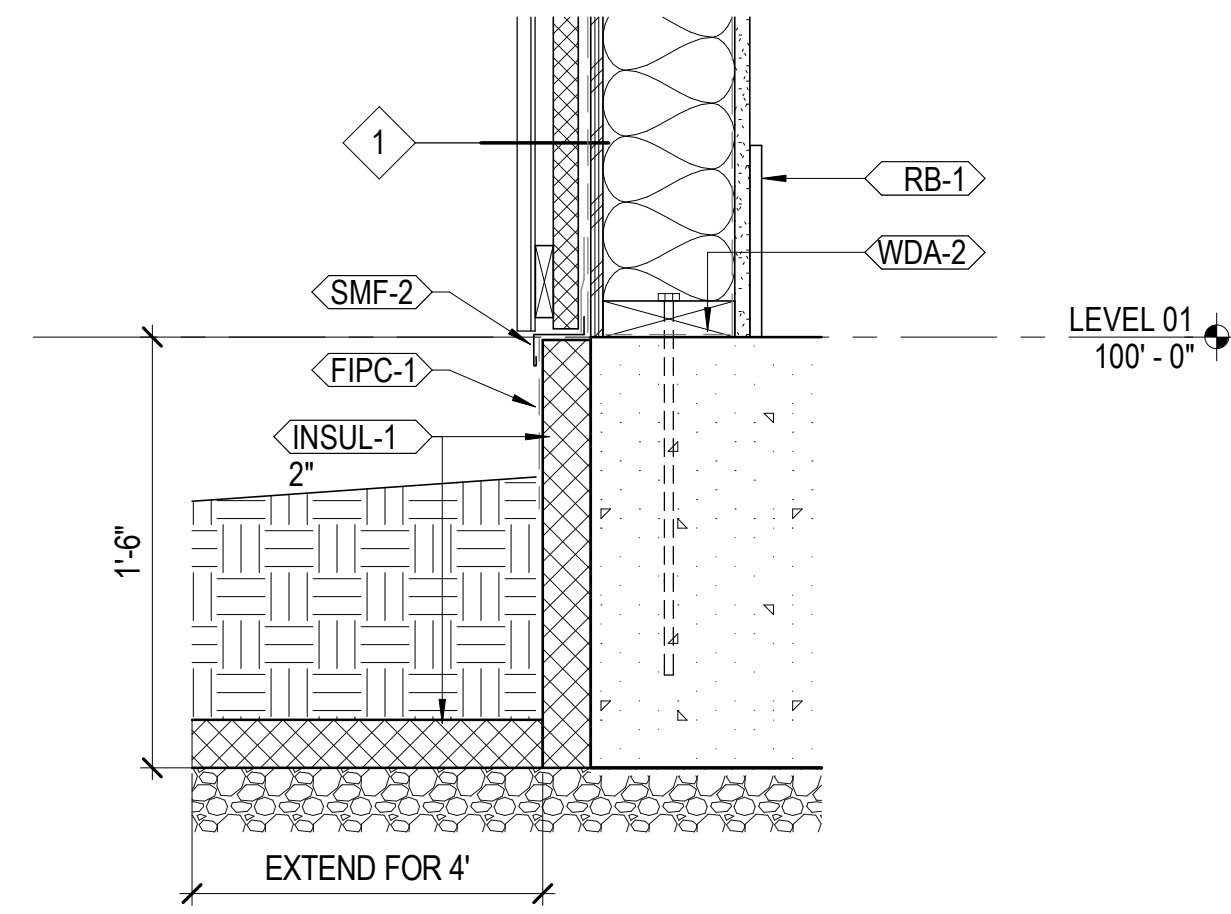
OVERALL FLOOR PLAN - ROOF

DATE: JANUARY 9, 2024

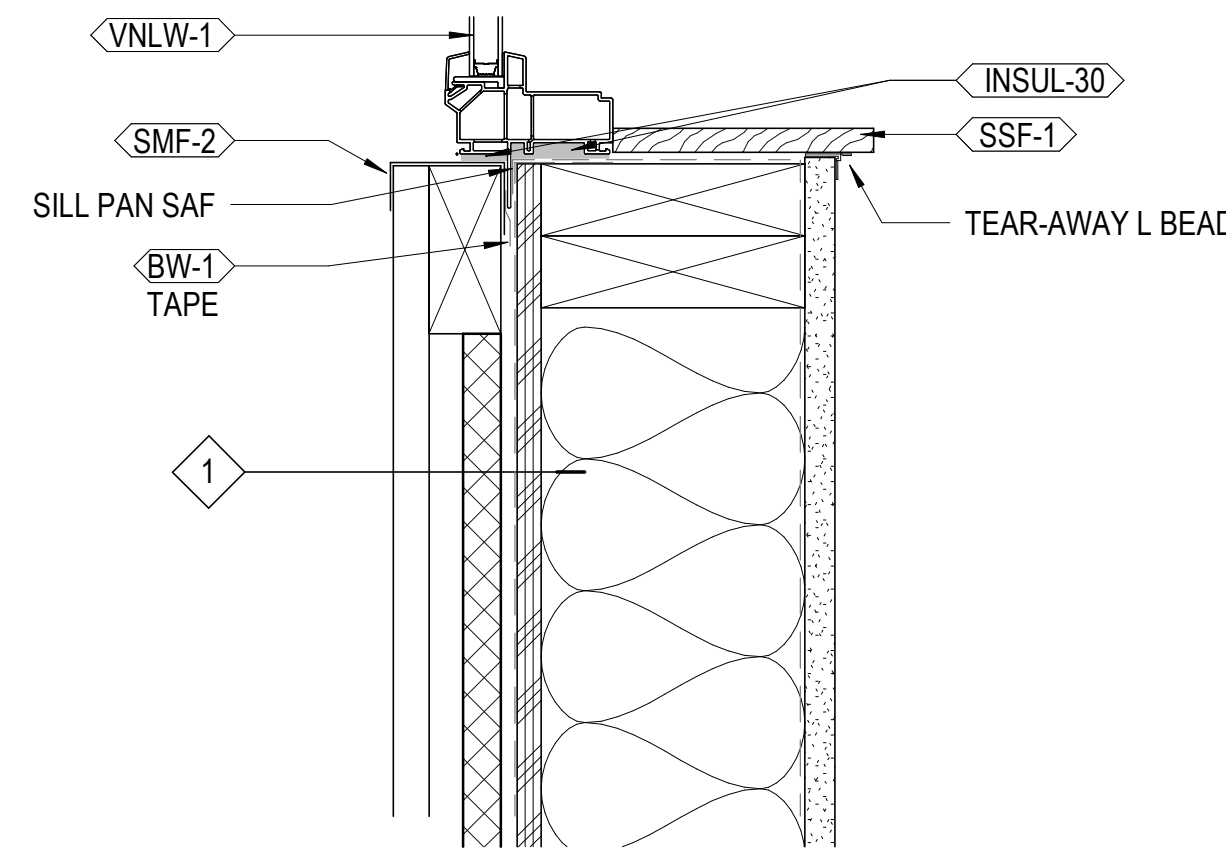
BID DOCUMENTS

A202

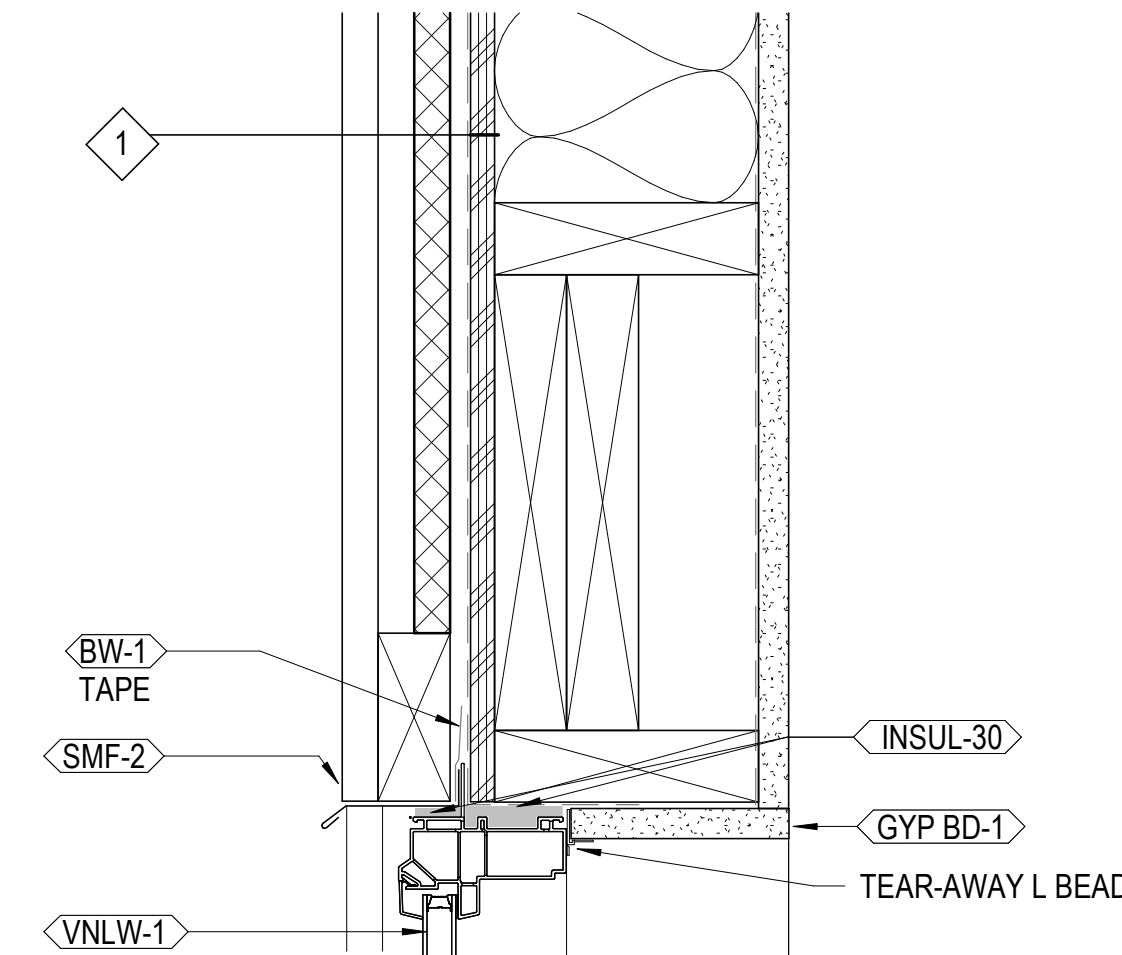




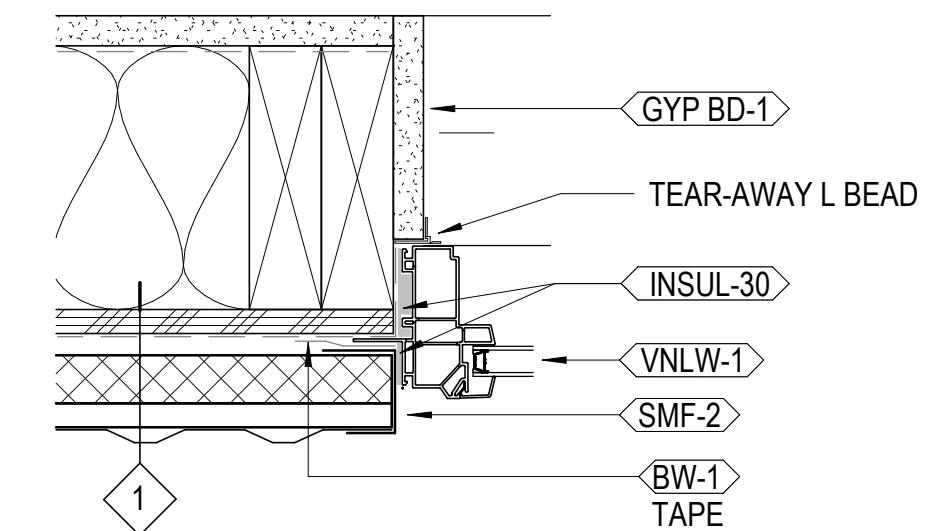
1 FOUNDATION DETAIL
1 1/2" = 1'-0"



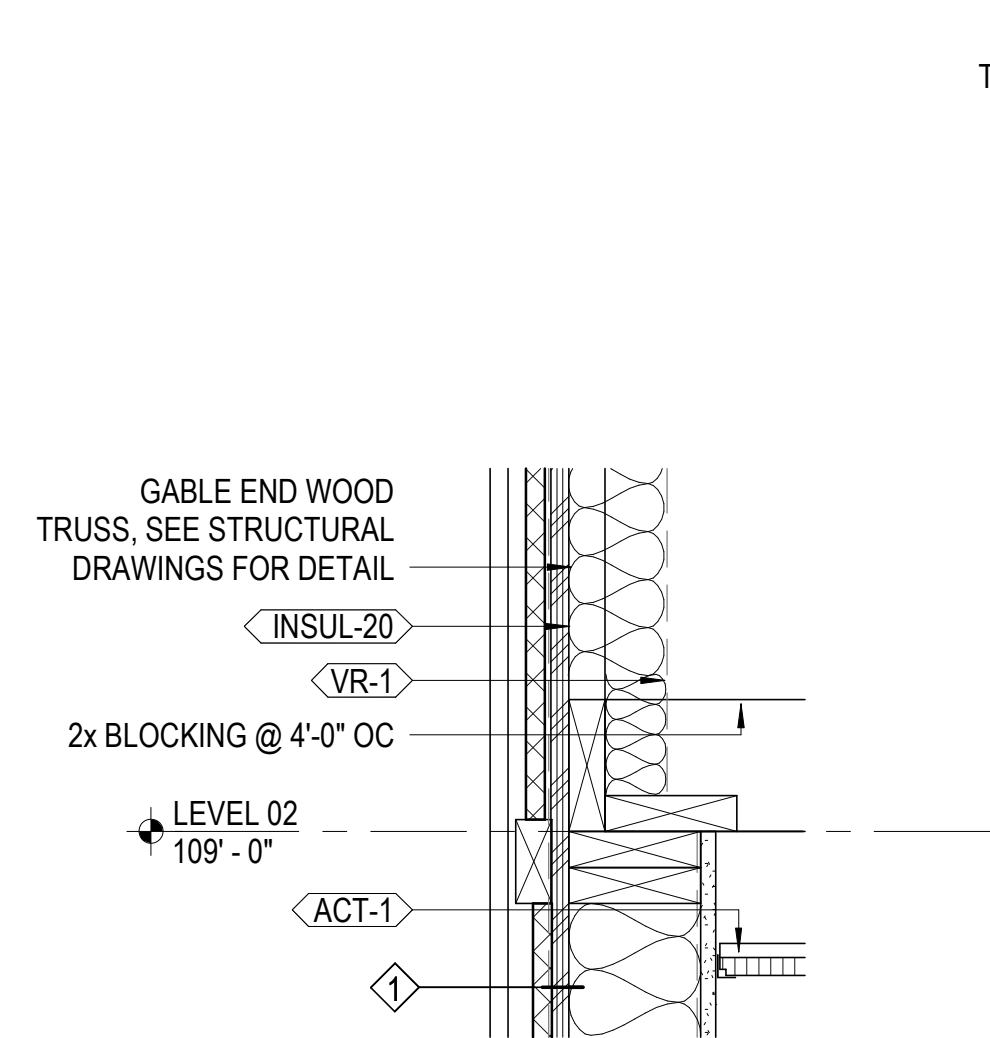
2 VINYL WINDOW - SILL DETAIL
3" = 1'-0"



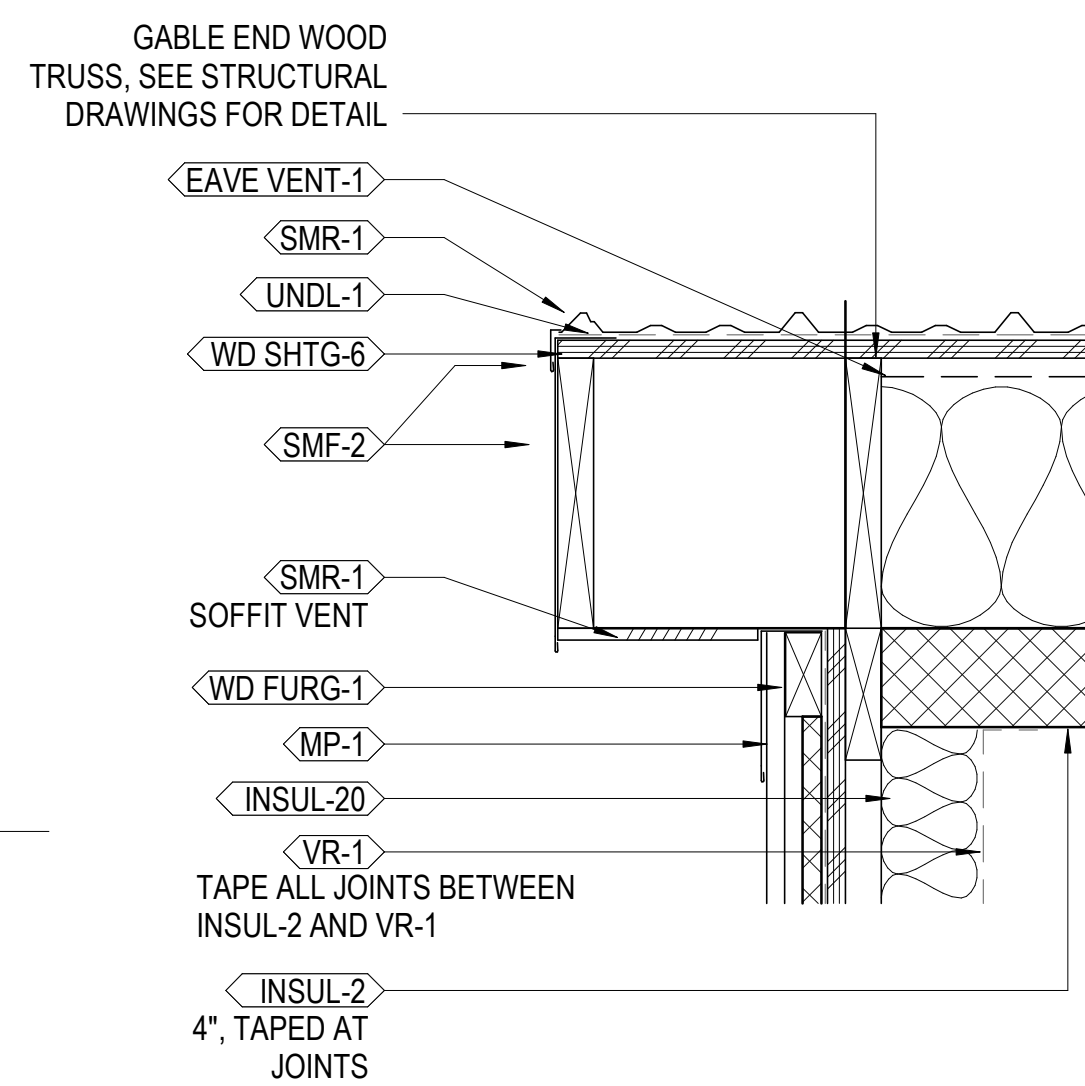
3 VINYL WINDOW - HEADER DETAIL
3" = 1'-0"



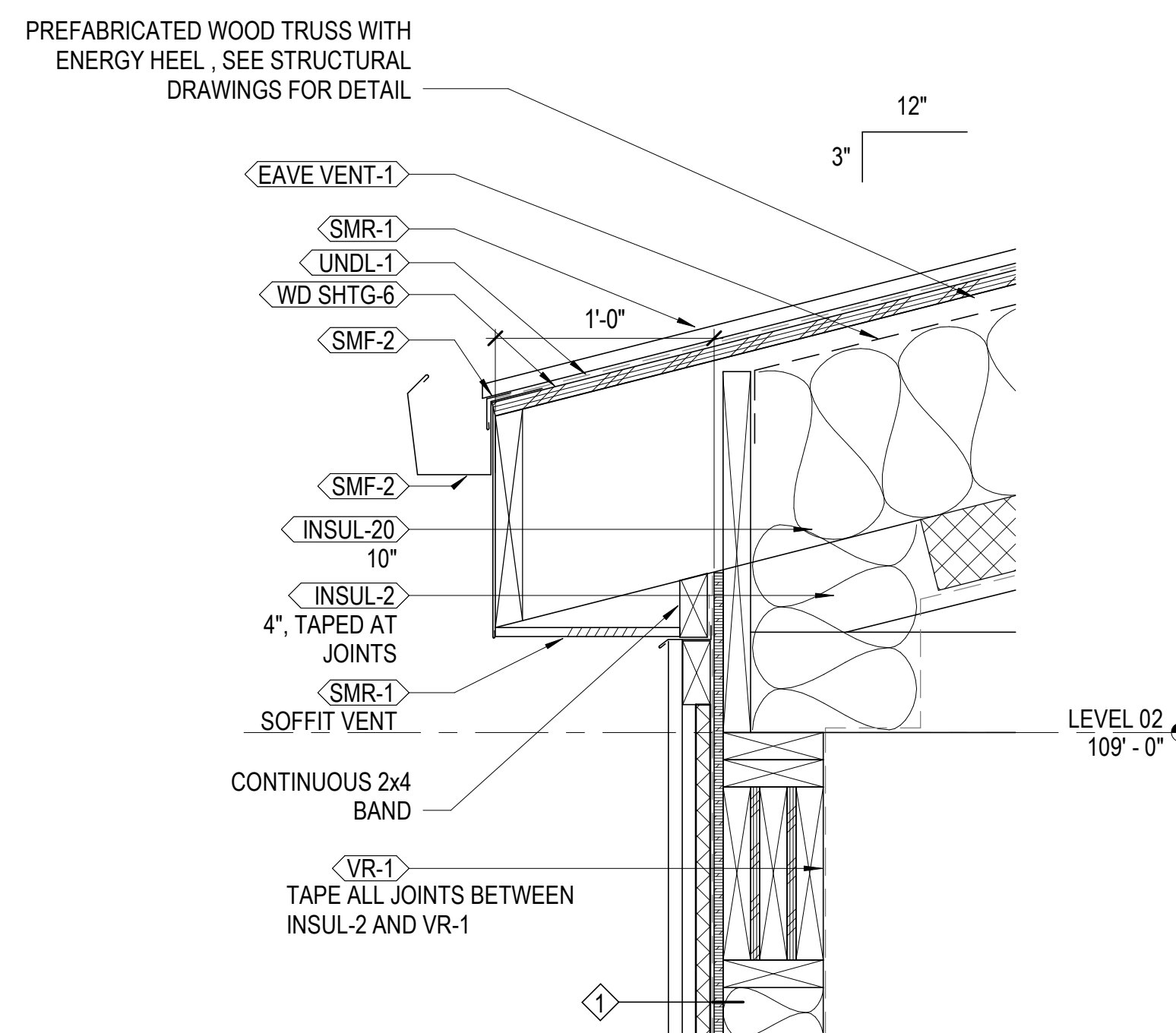
4 VINYL WINDOW - JAMB DETAIL
3" = 1'-0"



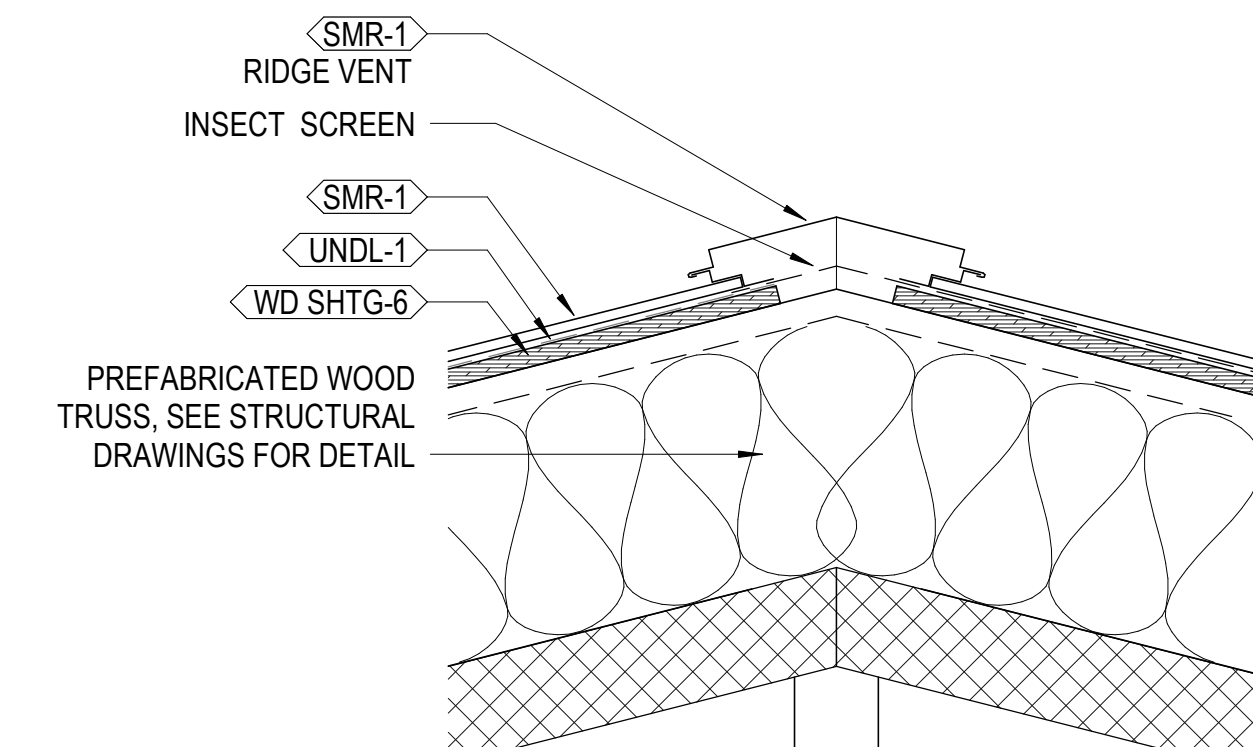
5 WALL DETAIL
1 1/2" = 1'-0"



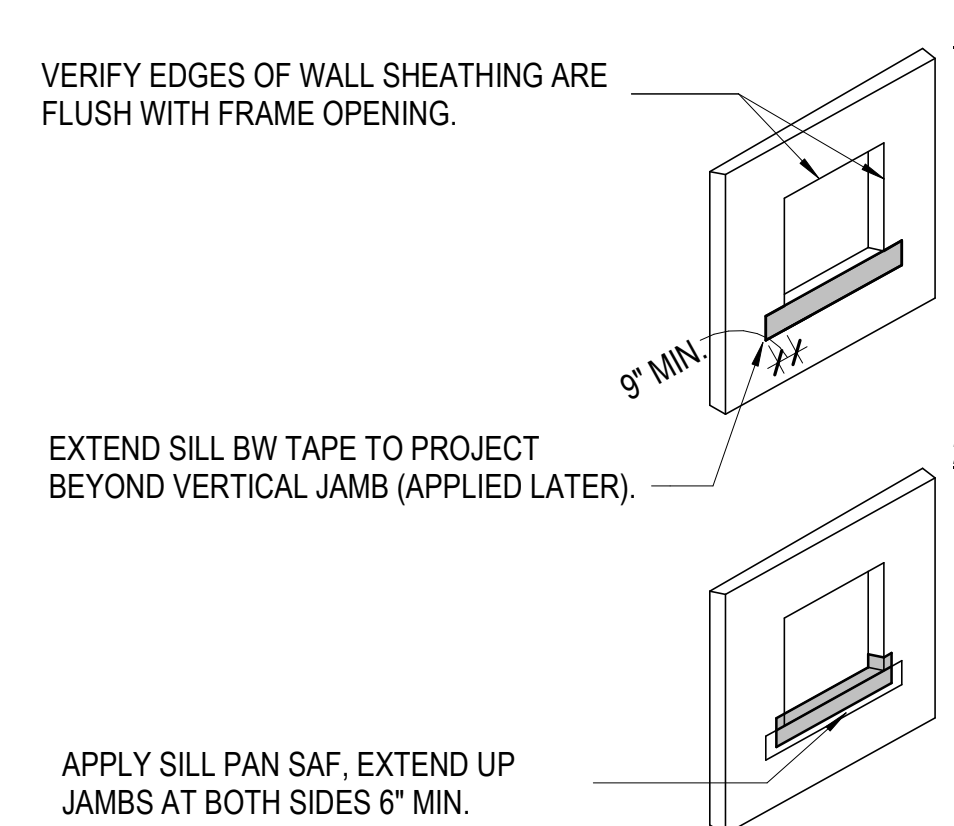
6 ROOF DETAIL 1
1 1/2" = 1'-0"



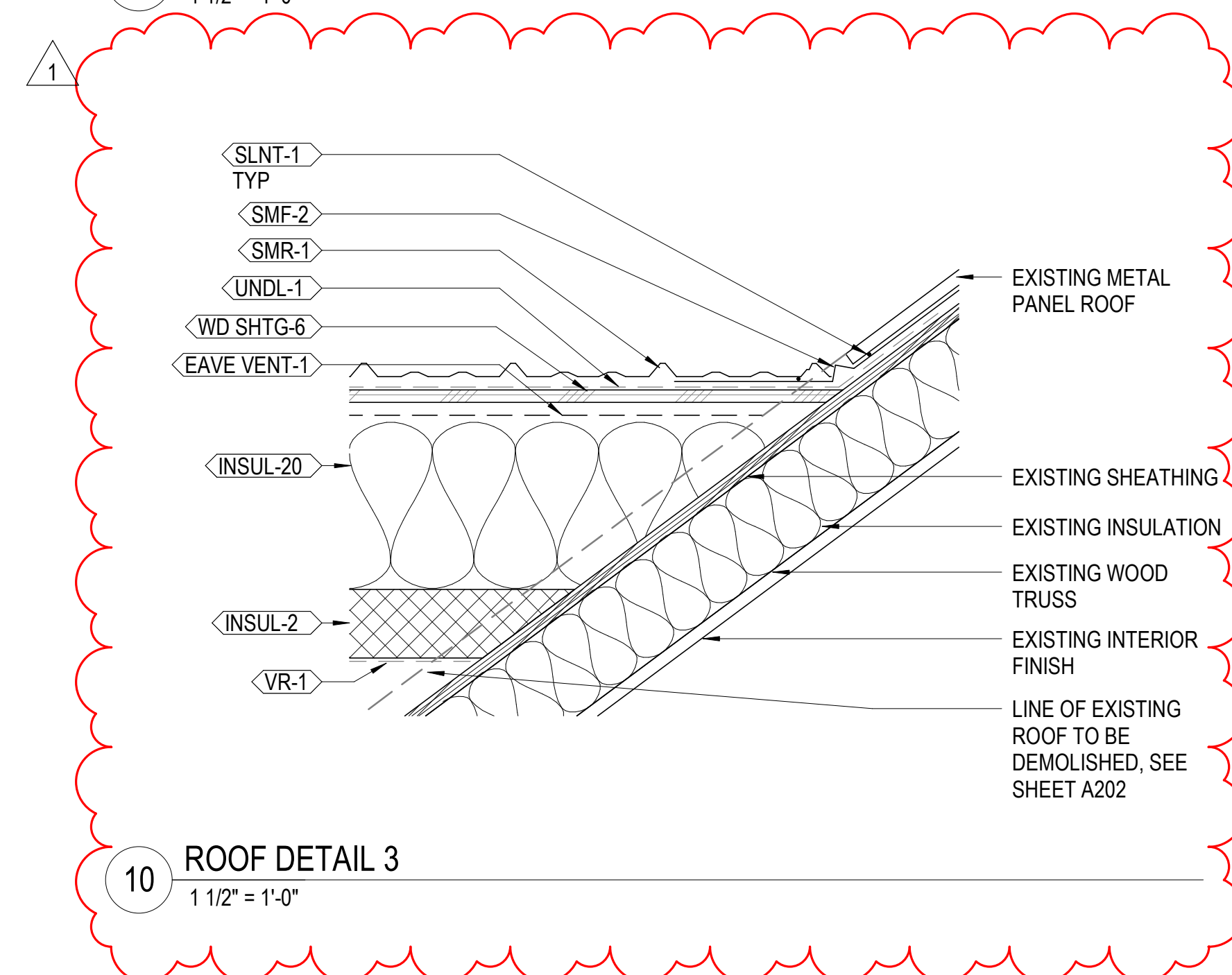
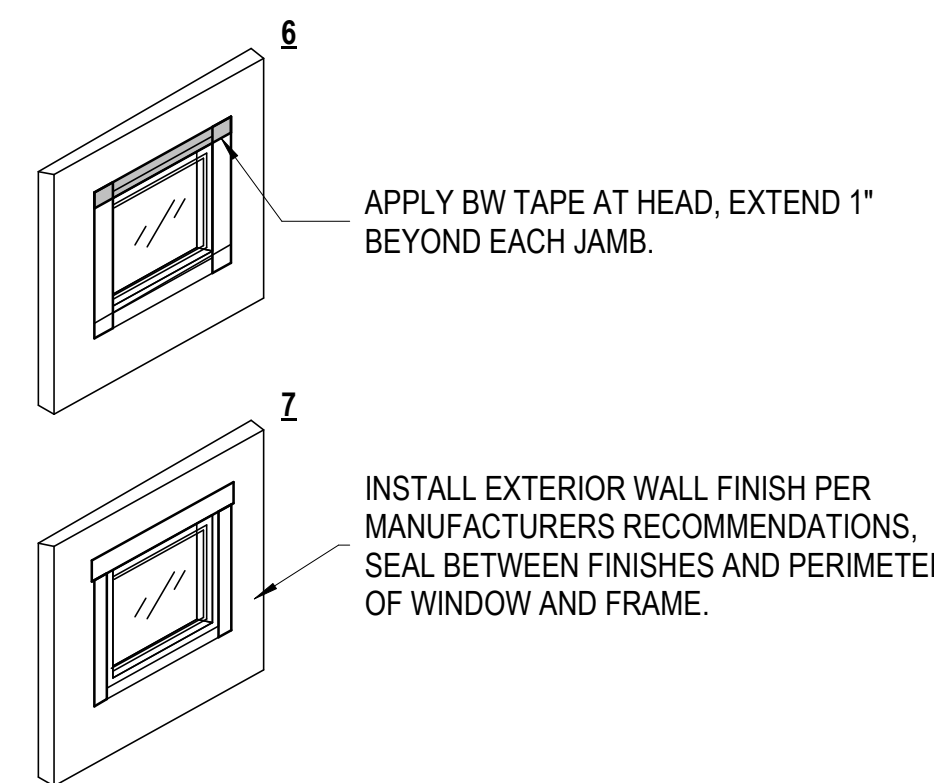
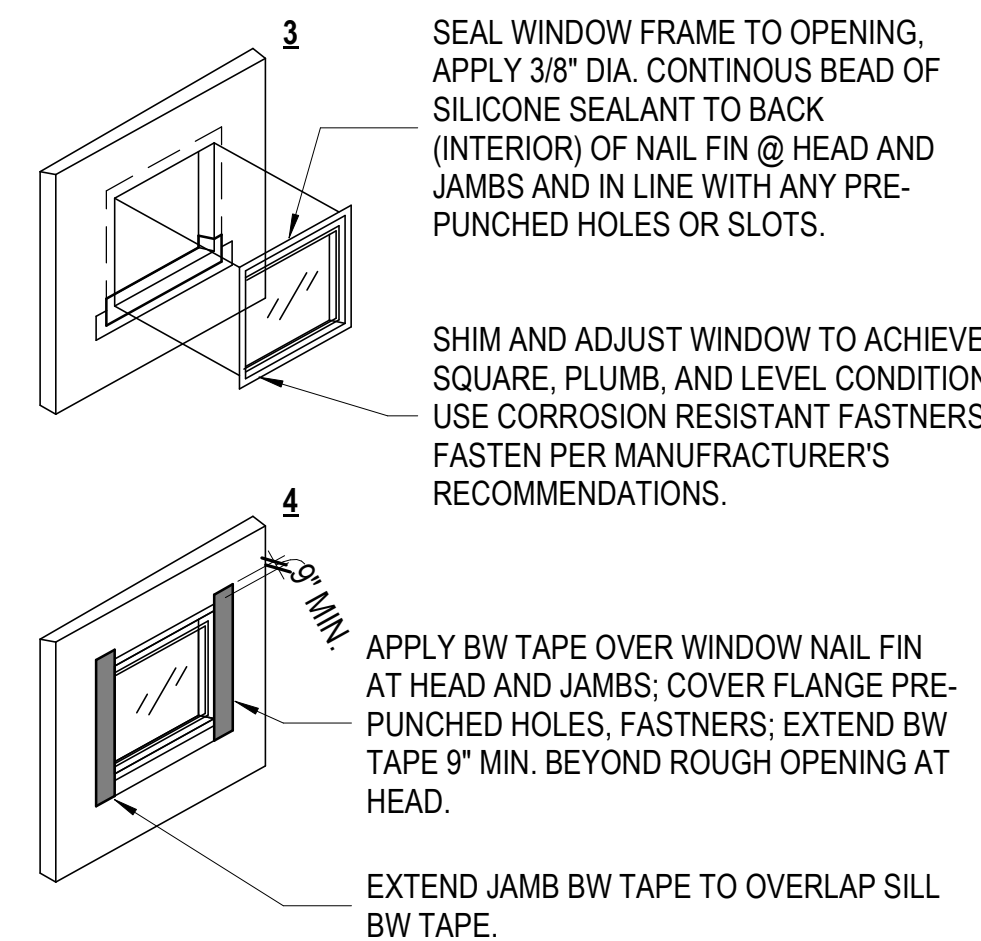
7 ROOF DETAIL 2
1 1/2" = 1'-0"



8 VENTED RIDGE DETAIL
1 1/2" = 1'-0"



9 WINDOW FLASHING DETAIL
1 1/2" = 1'-0"



10 ROOF DETAIL 3
1 1/2" = 1'-0"

NO	DESCRIPTION	DATE
1	ADD 1	3/7/2024

ISSUANCE HISTORY - THIS SHEET

HGA NO:	4200-023-00
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EXTERIOR DETAILS

DATE: JANUARY 9, 2024

BID DOCUMENTS

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1 **SECTION 07 21 00**
2 **THERMAL INSULATION**

3 PART 1 - GENERAL

4 1.1 SUMMARY

- 5 A. Section Includes:
6 1. Extruded polystyrene board insulation.
7 2. Fiberglass batt insulation.
8 3. Spray polyurethane foam insulation.

9 1.2 ACTION SUBMITTALS

- 10 A. Product Data: For each type of product.

11 1.3 DELIVERY, STORAGE, AND HANDLING

- 12 A. Protect insulation materials from physical damage and from deterioration by moisture, soiling, and other
13 sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling,
14 storing, and protecting during installation.
- 15 B. Protect plastic insulation as follows:
16 1. Do not expose to sunlight, except to extent necessary for period of installation and concealment.
17 2. Protect against ignition at all times. Do not deliver plastic insulating materials to Project site before
18 installation time.
19 3. Complete installation and concealment of plastic materials as rapidly as possible in each area of
20 construction.

21 PART 2 - PRODUCTS

22 2.1 EXTRUDED-POLYSTYRENE BOARD INSULATION

- 23 A. Surface-Burning Characteristics, per ASTM E 84:
24 1. Maximum Flame-Spread: 75
25 2. Maximum Smoke-Developed: 450
- 26 B. Thickness: As indicated on Drawings.
- 27 C. (INSUL-1) (INSUL-2) Rigid Insulation: ASTM C578; Type IV, 25 psi compressive strength, extruded
28 cellular polystyrene type; for above grade application:
29 1. Products and Manufacturers:
30 a. Cavitymate Ultra by Dupont.
31 b. Foamular 250 by Owens Corning.
32 c. Certifoam by DiversiFoam Products.

1 2.2 FIBERGLASS BATT INSULATION

2 A. Manufacturers:

- 3 1. CertainTeed Corporation.
- 4 2. Guardian Building Products, Inc.
- 5 3. Johns Manville.
- 6 4. Knauf Insulation.
- 7 5. Owens Corning.

8 B. (INSUL-20) Unfaced, Glass-Fiber Blanket Insulation: ASTM C 665, Type I; with maximum flame-spread
9 and smoke-developed indexes of 25 and 50, respectively, per ASTM E 84; passing ASTM E 136 for
10 combustion characteristics.

- 11 1. Nominal density of 1.0 lb/cu. ft., thermal resistivity of 3.7 deg F x h x sq. ft./Btu x in. at 75 deg F
- 12 2. Thickness: Same as stud depth or as indicated.
- 13 3. Width of Batts: Center to center dimension of metal studs and full face to face at other voids.

14 2.3 SPRAY POLYURETHANE FOAM INSULATION

15 A. Manufacturers:

- 16 1. BASF Corporation.
- 17 2. Dupont .
- 18 3. Henry Company.
- 19 4. SWD Urethane.
- 20 4-5. [Holcim Building Envelope.](#)

21 B. (INSUL-30) Closed-Cell Polyurethane Foam Insulation: ASTM C 1029, Type II.

- 22 1. Basis of Design:
 - 23 a. Quik-Shield 118 by SWD Urethanes.
 - 24 2. Minimum density of 1.5 lb/cu. ft.,
 - 25 3. thermal resistivity of 6.2 deg F x h x sq. ft./Btu x in. at 75 deg F.
 - 26 4. Fire Characteristics per ASTM E84:
 - 27 a. Maximum flame-spread of 75
 - 28 b. Maximum smoke-developed indices of 450.
 - 29 5. Doors and Windows: Where shown for filling the gap at the perimeter of doors and windows,
30 provide manufacturer's specially formulated product with low pressure-build.
 - 31 a. Basis of Design: "Great Stuff Pro Window & Door" by DuPont.

32 2.4 ACCESSORIES

33 A. (EAVE VENT-1) Eave Ventilation Troughs: Preformed, rigid fiberboard or plastic sheets designed and
34 sized to fit between roof framing members and to provide ventilation between insulated attic spaces and
35 vented eaves.

36 B. (FIPC-1) Foundation Wall Insulation Protective Covering: Fully-adhered, cold-applied, mold and mildew
37 resistant, UV resistant, impact and abrasion-resistant; paintable.

- 38 1. Application. Use as exterior above-grade waterproof, protective finishing membrane to cover
39 exposed to view rigid extruded polystyrene insulation at transition between below-grade and above-
40 grade exterior facade.
- 41 2. Thickness: 60-70 mils.
- 42 3. Primer and adhesive: As recommended by covering manufacturer.
- 43 4. Color: Gray.
- 44 5. Basis of Design: Equal to Groundbreaker by Nudo.

1 PART 3 - EXECUTION

2 3.1 INSTALLATION

- 3 A. Comply with insulation manufacturer's written instructions applicable to products and applications.
- 4 B. Clean substrates of substances that are harmful to insulation, including removing projections capable of
5 puncturing insulation or vapor retarders, or that interfere with insulation attachment.
- 6 C. Provide sizes to fit applications and selected from manufacturer's standard thicknesses, widths, and lengths.
7 Apply single layer of insulation units unless multiple layers are otherwise shown or required to make up
8 total thickness or to achieve R-value.
- 9 D. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or
10 snow at any time.
- 11 E. Cut and trim insulation neatly to fit spaces. Butt edges and ends tight. Fit insulation tight against
12 mechanical, electrical and other items which protrude through plane of insulation.
- 13 F. Extend insulation to envelop entire area to be insulated. Fit tightly around obstructions and fill voids with
14 insulation. Remove projections that interfere with placement.

15 3.2 INSTALLATION QUALITY

- 16 A. Install rigid insulation to maintain continuous and complete thermal protection for building spaces and
17 elements.
- 18 B. Ensure surfaces which are to receive rigid insulation are clean, free of deleterious matter and are sufficiently
19 level to allow proper installation of insulation.
- 20 C. Cut and trim insulation neatly to fit spaces. Butt edges and ends tight. Fit insulation tight against
21 mechanical, electrical and other items which protrude through plane of insulation.
- 22 D. Use insulation free of broken or chipped edges.

23 3.3 INSTALLATION OF FOUNDATION WALL INSULATION (INSUL-1)

- 24 A. Foundation Wall Insulation Installation: Secure insulation on perimeter foundation wall with adhesive
25 using spot or bead method in accordance with insulation manufacturer's recommendations. Place insulation
26 horizontally.
- 27 1. Coordinate installation with waterproofing systems where applicable.
- 28 2. Stagger vertical joints of insulation, except free ends over line of control joints.
- 29 3. Lay out insulation so that ends overlap minimum 4 inches and maximum 6 inches over line of
30 expansion contraction joints. Leave overlapping ends of insulation unbonded over line of these
31 joints, allowing insulation to move freely with foundation walls.

1 3.4 INSTALLATION OF BATT INSULATION FOR FRAMED CONSTRUCTION

2 A. Apply insulation units to substrates by method indicated, complying with manufacturer's written
3 instructions. If no specific method is indicated, bond units to substrate with adhesive or use mechanical
4 anchorage to provide permanent placement and support of units.

5 B. Glass-Fiber Blanket Insulation: Install in cavities formed by framing members according to the following
6 requirements:

- 7 1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than
8 one length is required to fill the cavities, provide lengths that will produce a snug fit between ends.
9 2. Place insulation in cavities formed by framing members to produce a friction fit between edges of
10 insulation and adjoining framing members.

11 C. For wood-framed construction, install blankets according to ASTM C 1320.

12 3.5 SPRAY-APPLIED INSULATION INSTALLATION (INSUL-30)

13 A. Spray-Applied Insulation (INSUL-30): Apply spray-applied insulation according to manufacturer's written
14 instructions. Do not apply insulation until installation of pipes, ducts, conduits, wiring, and electrical outlets
15 in walls is completed and windows, electrical boxes, and other items not indicated to receive insulation are
16 masked. After insulation is applied, make flush with face of studs by using method recommended by
17 insulation manufacturer.

18 3.6 INSTALLED WORK

19 A. Protection: Protect installed insulation and vapor retarders from damage due to harmful weather exposures,
20 physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to
21 abuse and cannot be concealed and protected by permanent construction immediately after installation.

22 **END OF SECTION**

1 **SECTION 087100**
2 **DOOR HARDWARE**

3 PART 1 - GENERAL

4 1.1 SUMMARY

- 5 A. Section includes:
6 1. Commercial door hardware for the following:
7 a. Swinging doors.
- 8 B. Related Sections:
9 1. Section 08 11 13 – Hollow Metal Doors and Frames.
10 2. Section 08 14 00 – Wood Doors.

11 1.2 GENERAL REQUIREMENTS

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

14 1.3 COORDINATION

- 15 A. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check
16 Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door
17 hardware to comply with indicated requirements.
- 18 B. Security: Coordinate installation of door hardware, keying, and access control with Owner's security
19 consultant.
- 20 C. Existing Conditions: Where hardware components are reused or where modifications to existing hardware
21 is required, field verify existing conditions and coordinate installation resulting in proper door operation
22 and ensure fire-rating recertification if required.
- 23 D. Coordination Meeting: When requested by Architect and/or Owner, the Contractor will schedule a meeting
24 prior to the installation of electrified hardware to review and coordinate functions and connections.
25 Participants to include representatives and-suppliers of all applicable electrified hardware components.
26 Advise Architect/Owner of scheduled date, time, place, and attendees.

27 1.4 PREINSTALLATION MEETINGS

- 28 A. Pre-Installation Conference: Prior to the installation of hardware, manufacturers' representatives must
29 arrange and conduct a jobsite meeting to instruct Installers on the proper installation. A letter of compliance
30 must be sent to the Architect and Owner.
- 31 B. Refer to Keying article for keying conference requirements.

1 1.5 ACTION SUBMITTALS

- 2 A. Hardware Schedule: Submit hardware schedule per Section 01 33 00 in vertical format as illustrated by the
3 Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute.
4 Schedules, which do not comply, will be returned for correction before review. Hardware schedule shall
5 clearly indicate architect's hardware group and manufacturer of each item proposed. The schedule shall be
6 reviewed prior to submission by a certified Architectural Hardware Consultant, who shall affix his or her
7 seal attesting to the completeness and correctness of the schedule.
8 1. Provide illustrations from manufacturers' catalogs and data in brochure form.
9 2. Check specified hardware for suitability and adaptability to details and surrounding conditions.
10 Indicate unsuitable or incompatible items and proposed substitutions in the hardware schedule
11 submittal.
12 3. When requested, provide listing of manufacturers' template numbers for each item of hardware in
13 the hardware schedule submittal.
14 4. Furnish associated Contractors and Subcontractors with copies of final approved hardware schedule.
15 Submit necessary templates and schedules as soon as possible to hollow metal, wood, aluminum,
16 and other door & frame fabricators in accordance with schedule they require for fabrication.
17 5. **Samples; if requested by Architect, provide for each exposed product in each finish specified,**
18 **in manufacturer's standard size**
19 a. Tag Samples with full product description to coordinate Samples with door hardware
20 schedule.
21 6. List of related door devices specified in other Sections for each door and frame.
- 22 B. Closer Mounting: Indicate mounting description for each closer included in the submittal's hardware
23 groups.
- 24 C. Existing Hardware Conditions: Refer to Part 1 - Coordination.
25 1. Advise Hardware Supplier and Architect of any existing conditions which would prevent utilization
26 of specified hardware.
- 27 D. Provide keying schedule, prepared by or under the supervision of Installer's Architectural Hardware
28 Consultant, detailing Owner's final keying instructions for locks. Include schematic keying diagram and
29 index each key set to unique door designations that are coordinated with the Contract Documents. Keying
30 schedule to be coordinated with and approved by Owner.
- 31 E. Installation Instructions: Provide manufacturer's written installation and adjustment instructions for finish
32 hardware. Send installation instructions to site with hardware.

33 1.6 INFORMATIONAL SUBMITTALS

- 34 A. Contract Closeout Submittals: Comply with Section 01 78 00 including specific requirements indicated.
35 1. Operating and maintenance manuals containing the following:
36 a. Complete information in care, maintenance, and adjustment, and data on repair and
37 replacement parts, and information on preservation of finishes.
38 b. Catalog pages for each product.
39 c. Name, address, and phone number of local representative for each manufacturer.
40 d. Parts list for each product.
41 2. Copy of final approved hardware schedule, edited to reflect As installed.
42 3. Copy of final keying schedule.
43 4. One complete set of special tools required for maintenance and adjustment of hardware, including
44 changing of cylinders.

1 1.7 QUALITY ASSURANCE

- 2 A. Manufacturer: Obtain each type of hardware, i.e. latch and locksets, hinges, closers from single
3 manufacturer, although several may be indicated as offering products complying with requirements.
- 4 B. Supplier: Recognized architectural finish hardware supplier, with warehousing facilities, who has been
5 providing hardware for period of not less than 3 years. The supplier shall be, or employ, a certified
6 Architectural Hardware Consultant AHC, who is registered in the continuing education program as
7 administered by the Door and Hardware Institute. The hardware schedule shall be prepared and signed by
8 a certified AHC.
- 9 C. Installer: Firm with three years experience in installation of similar hardware to that required for this
10 project, including specific requirements indicated.
- 11 D. Pre-Installation Conference: Prior to the installation of hardware, manufacturers' representatives for
12 locksets, closers, and exit devices shall arrange and conduct a jobsite meeting to instruct the installing
13 contractor's personnel on the proper installation of their respective products. A letter of compliance,
14 indicating when this meeting is held and who is in attendance, shall be sent to the Architect and Owner.
15 Refer to Keying article for keying conference requirements.

16 1.8 DELIVERY, STORAGE AND HANDLING

- 17 A. Deliver hardware to jobsite in manufacturer's original packaging, marked to correspond with the approved
18 hardware schedule. Do not deliver hardware until suitable locked storage space is available. Check
19 hardware against reviewed hardware schedule. Store hardware to protect against loss, theft, or damage.
- 20 B. Deliver hardware required to be installed during fabrication of hollow metal, aluminum, wood, or stainless-
21 steel doors prepaid to the respective manufacturer.

22 1.9 WARRANTY

- 23 A. Guarantee workmanship and material provided against defective manufacture. Repair or replace defective
24 workmanship and material appearing within period of one year after Substantial Completion.
- 25 B. Provide a minimum ten-year factory warranty on door closer body against defects in material and
26 workmanship from date of occupancy of Project.
- 27 C. Replace shortages and incorrect items with correct material at no additional cost to Owner.
- 28 D. At completion of project, qualified factory representative shall inspect closer installations. After this
29 inspection, letter shall be sent to Architect reporting on conditions, verifying that closers have been properly
30 installed and adjusted.

31 1.10 ATTIC STOCK

- 32 A. Coordinate with Owner for products and quantities desired for attic stock.

1 PART 2 - PRODUCTS

2 2.1 GENERAL

- 3 A. Confirm acceptable manufacturers and models of all hardware products with Owner. Specified products
4 are listed only to establish function and a level of quality.
- 5 B. Specified manufacturers and models are based on the best information available at the time of this printing
6 to establish function and level of quality but are subject to change as additional information becomes
7 available. Changes will be advised in future documentation.
- 8 C. Acceptable manufacturers and models of particular products will be determined by hardware
9 distributor/supplier who has been contracted and directed by the Owner. Specified products are listed only
10 to establish function and a level of quality.

11 2.2 BUTTS AND HINGES

- 12 A. Acceptable Manufacturers:
13 1. Bommer
14 2. Hager listed below for design intent only
15 3. Ives
16 4. McKinney
17 5. PBB
18 6. Stanley
- 19 B. Types per Application:
20 1. Interior doors with closers: BB1279/BB1168
21 2. Interior doors over 36 inches wide: BB1168
22 3. Interior doors 36 inches or less without closer: BB1279
23 4. Provide NRP, non-removable pins, at out-swinging doors that are lockable or locked and at other
24 doors when specifically indicated.
- 25 C. Size:
26 1. 1-3/4 inch Doors 4-1/2 inch by 4-1/2 inch
- 27 D. Quantity:
28 1. 2 – hinges per leaf for openings through 60 inches in height.
29 2. 1 – additional hinge per leaf for each additional 30 inches in height or fraction thereof.
30 3. 1 – additional hinge per leaf for openings 40 inches wide and wider.
31 a. For mineral core doors Refer to Part 2 - Continuous Stainless-Steel Hinges
- 32 E. Drill 5/32 inch hole and use No. 12, 1-1/4 inch steel threaded to the head wood screws for hinges on wood
33 doors.

34 2.3 LOCKSETS – HEAVY-DUTY CYLINDRICAL

- 35 A. Acceptable Manufacturer and Series:
36 1. Best: 9K-15D
37 2. Corbin Russwin: CL33 x NZD
38 3. SARGENT: 10-Line x LL
39 4. Schlage: ND-RHO

- 1 5. Yale: 5400LN x AU
- 2 B. Provide heavy-duty cylindrical locks unless indicated otherwise with functions specified in Hardware
3 Groups and with the following provisions:
- 4 1. Cylinders: Provide cylinders, as required, to accomplish specified lock function. Refer to Part 2 –
5 KEYING.
- 6 2. Backsets: 2-3/4 inches.
- 7 3. Strikes: Provide wrought boxes and strikes with proper lip length to protect trim but not to project
8 more than 1/8 inch beyond trim, frame or inactive leaf. Where required, provide open back strike
9 and protected to allow practical and secure operation.

10 2.4 KEYING

- 11 A. Integrate keying of new locks/cylinders with existing key system as directed by Owner. Confirm existing
12 key system manufacturer and keyway. Factory key all cylinders with manufacturer retaining permanent
13 keying records. If requested, provide Owner with copy of bitting list via Owner acceptable delivery
14 method.
- 15 B. Contractor shall provide construction masterkeying and keys for the construction period.
- 16 C. Authorized local distribution/service shall be available for purchase of additional keys & cylinders to allow
17 for system revisions, expansion, and service, as required.
- 18 D. Keying Conference: Conduct conference.
- 19 1. Conference participants shall include Installer's Architectural Hardware Supplier/Consultant,
20 Architect and Owner's security consultant.
- 21 2. Incorporate conference decisions into keying schedule after reviewing door hardware keying system
22 including, but not limited to, the following:
- 23 a. Flow of traffic and degree of security required.
- 24 b. Preliminary key system schematic diagram.
- 25 c. Requirements for key control system.
- 26 d. Requirements for access control.
- 27 e. Address for delivery of keys.
- 28 E. If requested, submit proposed keying schedule to Architect and meet with Owner and Architect to review
29 schedule.
- 30 F. Provide construction masterkeying. Permanent cylinders/cores shall be installed/activated upon completion
31 of the project.
- 32 G. Provide 6 masterkeys for each masterkey set. Provide 3 change keys for each lock. Stamp keys Do Not
33 Duplicate. When interchangeable core cylinders are specified, provide 2 control keys for core removal.
- 34 H. All keys shall be delivered to the designated Owner's representative via method determined and agreed
35 upon by the Owner at the keying meeting.

36 2.5 STOPS AND HOLDERS

- 37 A. Acceptable Manufacturers:
- 38 1. Burns
- 39 2. Hager
- 40 3. Ives listed below for design intent only

- 1 4. Trimco
- 2 B. Wall Bumper: WS406/407CVX; WS406/407CCV
- 3 C. Provide wall bumper for each door leaf except where wall mounted stops are specified in the Hardware
- 4 Groups, or where opening conditions require the use of an overhead stop. Refer to Part 2 – Overhead Stops
- 5 1. Provide an overhead stop for doors in which the door face or operating trim on the leading/latch
- 6 edge does not open against wall or opens against equipment or furniture.
- 7 D. Provide base mounted stops at toilet rooms, unless alternate stop is specified: WS11/WS11X.

8 2.6 FASTENERS

- 9 A. Including, but not limited to; wood or machine screws, special screws, bolts, special bolts, nuts, expansion
- 10 shields, anchors, and other accessory items of proper type, material, and finish required for complete
- 11 operational installation of hardware.
- 12 B. Use phillips head for exposed screws. Do not use aluminum screws to attach hardware.
- 13 C. Provide self-tapping, TEC, screws for attachment of sweeps and stop-applied weatherstripping.
- 14 D. Provide tamper resistant fasteners at exposed hardware, such as Torx screws at behavioral health and places
- 15 of detention

16 2.7 TYPICAL FINISHES AND MATERIALS

- 17 A. Finishes, unless otherwise specified: Satin Chrome Brushed Stainless Steel US26D
- 18 1. Butts, Interior Doors and In-swinging Exterior Doors: US26D/BHMA 652 on Steel.
- 19 2. Locks and Latches: US26D/BHMA 626 on Brass or Bronze.
- 20 3. Miscellaneous Hardware: US26D/BHMA 626 on Brass or Bronze.

21 PART 3 - EXECUTION

22 3.1 EXAMINATION

- 23 A. Examine doors, frames, and related items for conditions that would prevent the proper application of finish
- 24 hardware. Do not proceed until defects are corrected.

25 3.2 INSTALLATION

- 26 A. Install finish hardware in accordance with reviewed hardware schedule and manufacturer's printed
- 27 instructions. Prefit hardware before finish is applied, remove and reinstall after finish is completed. Install
- 28 hardware so that parts operate smoothly, close tightly and do not rattle.
- 29 B. Installation of hardware shall comply with NFPA 80 and NFPA 101 requirements.
- 30 C. Set units level, plumb and true to line and location. Adjust and reinforce attachment to substrate as
- 31 necessary for proper installation and operation.

1 D. Screws for hinges and lock fronts in wood doors shall have pilot holes pre-drilled to avoid splitting doors.
2 Do not over-drill pilot holes or over-torque installation of screws.

3 E. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and
4 anchors in accordance with industry standards.

5 3.3 FIELD QUALITY CONTROL

6 A. After installation has been completed, provide services of qualified hardware consultant to check Project
7 to determine proper application of finish hardware according to schedule. Also check operation and
8 adjustment of hardware items.

9 B. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

10 3.4 ADJUSTING AND CLEANING

11 A. At final completion, hardware shall be left clean and free from disfigurement. Make final adjustment to
12 door closers and other items of hardware. Where hardware is found defective repair or replace or otherwise
13 correct as directed.

14 B. Adjust door closers to meet opening force requirements of Uniform Federal Accessibility Standards.

- 15 1. Force Requirements:
16 a. Interior hinged doors and gates: 5 pounds maximum.

17 C. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or
18 occupancy of space or area, return to work during week prior to acceptance or occupancy, and make final
19 check and adjustment of hardware items in such space or area. Clean operating items as necessary to restore
20 proper function and finish of hardware and doors.

21 D. Instruct Owner's personnel in proper adjustment and maintenance of door hardware and hardware finishes.

22 E. Clean adjacent surfaces soiled by hardware installation.

23 3.5 PROTECTION

24 A. Provide for proper protection of hardware items until the Owner accepts Project as complete.

25 3.6 HARDWARE GROUPS

26 A. Provide all required door hardware for each specified opening to comply with requirements of this section
27 in its entirety. Included are desired/intended functions, acceptable manufacturers and models, systems
28 coordination, etc. for a complete installed opening.

29 B. Refer to the openings schedule for hardware group and modifiers assigned to each door opening. Ignore
30 hardware groups and modifiers not assigned on the openings schedule.

31 GROUP 10 – Single, passage, no closer

32 Hinges

33 1 each Latchset: Passage Function

- 1 Function: Latchbolt is retracted by lever on either side. Free egress at all times.
2 1 each Stop, as required by opening conditions
3
4 GROUP 12.01 – Office/Entrance, no closer
5 Hinges
6 1 each Lockset: Office/Entrance function - F82-cylindrical
7 Function: Latchbolt is retracted by lever on either side unless outside lever is locked by inside turn button (cyl) or
8 toggle on lock front (mort). Key outside retracts latchbolt. Deadlocking latchbolt.
9 1 each Stop, as required by opening conditions
10
11 GROUP 44 – Pair, Active/inactive storeroom lock with automatic flushbolts, coordinator and
12 closers
13 Hinges
14 1 set Flushbolts, automatic
15 1 each Lockset: Storeroom Function
16 Function: Latchbolt is retracted by lever inside only. Outside lever is always Locked. Key outside retracts latchbolt.
17 Deadlocking latchbolt. Free egress at all times.
18 1 each Coordinator
19 2 each Closers
20 2 each Kickplates
21 2 each Stops, as required by opening conditions
22 Surface Astragal, provided by Door Manufacturer/Supplier, matching wood at wood doors, primed flat steel at
23 hollow metal doors, if required for smoke resistance or by fire rating.
24 GROUP 14 – Single, door Storeroom lock, no closer
25 Hinges
26 1 each Lockset: Storeroom function
27 Function: Latchbolt is retracted by inside lever only. Outside lever is always locked. Key outside retracts latchbolt.
28 Deadlocking latchbolt. Free egress at all times.
29 1 each Stop, as required by opening conditions

30 **END OF SECTION**
31