

**ADDENDUM 3**

Addendum #	3	Date Issued	September 21, 2026
Project Name Job #	MSU Hoffman Auditorium Remodel		20262120
Bid Date Time	September 24, 2026		2:00pm Local Time

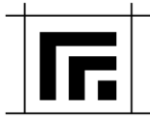
THIS ADDENDUM AMENDS AND BECOMES PART OF THE CONTRACT DOCUMENTS FOR EAPC PROJECT 20262120 DATED September 4th, 2026, RESPECTIVELY. EACH BIDDER SHALL ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY MARKING THE ADDENDUM NUMBER AND DATE ON THE BID FORM.

GENERAL NOTES

The Bid Opening location has changed to the **Jones Room on the 3rd Floor of the Administration Building**. The bid date and time will remain the same.

SPECIFICATIONS

- 00 0200 Under Section 1.5, A: **CHANGE** The Bid Opening Place will be the Jones Room on the 3rd Floor of the Administration Building.
- 00 3000.1 **DELETE** section in its entirety and **REPLACE** with attached 00 3000.1 Bid Form.
- 08 1113 **ADD** section in its entirety.
- 08 1213 **DELETE** section in its entirety.
- 08 7100.13 **DELETE** section in its entirety and **REPLACE** with attached 08 7100.13 Door Hardware Schedule. The door hardware for Door 104 (Group 3.1 - Alternate) has changed.
- 08 8000 **ADD** section in its entirety.

**ADDENDUM 3** *continued***DRAWINGS**

None

PRIOR APPROVALS

None

ATTACHMENTS*Specifications:*

00 3000.1	Bid Form
08 1113	Hollow Metal Doors and Frames
08 7100.13	Door Hardware Schedule
08 8000	Glazing

Drawings:

None

END ADDENDUM 3

BID FORM

PROJECT: MSU Hoffman Auditorium Remodel

BID OPENING DATE: Thursday, September 24, 2026

BID OPENING TIME: 2:00 PM (Local Time)

BID OPENING PLACE: MSU Jones Room on the 3rd floor of the Administration Building
500 University Ave W
Minot, ND 58707

TO THE OWNER: Minot State University
500 University Ave W
Minot, ND 58707

I have received the Drawings and Specifications for the _____ Contract for EAPC Project No. 20262120, MSU Hoffman Auditorium Remodel, to be erected at Minot, North Dakota.

I have also received Addenda Nos. _____ and have included their provisions in my Bid. I have examined both the documents and the site and submit the following Bid:

I will do the _____ Construction Work for the lump sum price of _____ dollars (\$ _____).

ALTERNATIVES.

I will include the following alternates as specified additions to or deductions from the above Base Bid, for changes in dollars and time listed:

Alternate No. 1, New ADA Ramp

ADD \$ _____

ADD _____ Calendar Days.

Alternate No. 2, A/V 4K LED Screen

ADD \$ _____

ADD _____ Calendar Days.

Alternate No. 3, A/V Enhanced Guest Computer Access

ADD \$ _____

ADD _____ Calendar Days.

In submitting this Bid, I agree:

1. To hold my bid open for thirty (30) calendar days after its' opening.
2. To accept the provisions of the Instructions to Bidders regarding disposition of Bid Security.
3. To enter into and execute a Contract, if awarded on the basis of this bid, and to furnish Guarantee Bonds in accord with the Instructions to Bidders.
4. To accomplish the work in accord with the Contract Documents.
5. To substantially complete the Work in the Base Bid according to the following schedule:
To substantially complete the Work in the Base Bid by _____ calendar days from date of Notice to Proceed.

I have attached the required Bid Security.

I have listed below the major Subcontractors whose bids I have used in submitting this Bid:

Plumbing
Heating, Ventilating, Air Conditioning
Electrical

Official Address:	_____	Firm Name
_____	_____	signed by
_____	_____	title

SECTION 08 1113 - HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Non-fire-rated hollow metal doors and frames.
- B. Hollow metal frames for wood doors.
- C. Thermally insulated hollow metal doors and frames.
- D. Accessories, including glazing.

1.2 RELATED REQUIREMENTS

- A. Section 08 1416 - Flush Wood Doors.
- B. Section 08 7100 - Door Hardware.
- C. Section 08 8000 - Glazing.
- D. Section 09 9000 - Painting and Coating.

1.3 ABBREVIATIONS AND ACRONYMS

- A. ANSI: American National Standards Institute.
- B. HMMA: Hollow Metal Manufacturers Association.
- C. NAAMM: National Association of Architectural Metal Manufacturers.
- D. NFPA: National Fire Protection Association.
- E. SDI: Steel Door Institute.
- F. UL: Underwriters Laboratories.

1.4 REFERENCE STANDARDS

- A. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
- B. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors; 2026.
- C. ANSI/SDI A250.6 - Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames; 2024.
- D. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2023.

- E. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 2025.
- F. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2025a.
- G. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable; 2026.
- H. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2025.
- I. ASTM C143/C143M - Standard Test Method for Slump of Concrete; 2026a.
- J. ASTM C476 - Standard Specification for Grout for Masonry; 2023.
- K. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2026a.
- L. BHMA A156.115 - Hardware Preparation in Steel Doors and Frames; 2016.
- M. ICC A117.1 - Accessible and Usable Buildings and Facilities; 2017.
- N. NAAMM HMMA 830 - Hardware Selection for Hollow Metal Doors and Frames; 2002.
- O. NAAMM HMMA 831 - Hardware Locations for Hollow Metal Doors and Frames; 2024.
- P. NAAMM HMMA 840 - Guide Specifications for Receipt, Storage and Installation of Hollow Metal Doors and Frames; 2024.
- Q. NAAMM HMMA 861 - Guide Specifications for Commercial Hollow Metal Doors and Frames; 2014.
- R. NFPA 105 - Standard for Smoke Door Assemblies and Other Opening Protectives; 2025.
- S. SDI 117 - Manufacturing Tolerances for Standard Steel Doors and Frames; 2026.
- T. UL 1784 - Standard for Air Leakage Tests of Door Assemblies and Other Opening Protectives; Current Edition, Including All Revisions.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced standards/guidelines.
- C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.
- D. Installation Instructions: Manufacturer's published instructions, including any special installation instructions relating to this project.

- E. Manufacturer's Certificate: Certification that products meet or exceed specified requirements.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Provide hollow metal doors and frames from SDI Certified manufacturer: <https://steeldoor.org/sdi-certified/#sle>.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.
- C. Maintain at project site copies of reference standards relating to installation of products specified.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
- B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Hollow Metal Doors and Frames: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - 1. Ceco Door, an Assa Abloy Group company: www.assaabloydss.com/#sle.
 - 2. Curries, an Assa Abloy Group company: www.assaabloydss.com/#sle.
 - 3. The MPI Group, LLC.: www.metalproductsinc.com
 - 4. Steelcraft, an Allegion brand; ____: www.allegion.com/#sle.
 - 5. Substitutions: See Section 01 6000 - Product Requirements.

2.2 PERFORMANCE REQUIREMENTS

- A. Requirements for Hollow Metal Doors and Frames:
 - 1. Steel Sheet: Comply with one or more of the following requirements; galvanized steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A1011/A1011M, commercial steel (CS) Type B, for each.
 - 2. Accessibility: Comply with ICC A117.1 and ADA Standards.
 - 3. Exterior Door Top Closures: Flush end closure channel, with top and door faces aligned.
 - 4. Door Edge Profile: Manufacturers standard for application indicated.
 - 5. Typical Door Face Sheets: Flush.
 - 6. Glazed Lights: Non-removable stops on non-secure side; sizes and configurations as indicated on drawings. Style: Manufacturer's standard.

7. Hardware Preparations, Selections and Locations: Comply with NAAMM HMMA 830 and NAAMM HMMA 831 or BHMA A156.115 and ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
 8. Zinc Coating for Typical Interior and/or Exterior Locations: Provide metal components zinc-coated (galvanized) and/or zinc-iron alloy-coated (galvannealed) by the hot-dip process in accordance with ASTM A653/A653M, with manufacturer's standard coating thickness, unless noted otherwise for specific hollow metal doors and frames.
 - a. Based on SDI Standards: Provide at least A40/ZF120 (galvannealed) when necessary, coating not required for typical interior door applications, and at least A60/ZF180 (galvannealed) for corrosive locations.
- B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

2.3 HOLLOW METAL DOORS

- A. Exterior Doors: Thermally insulated.
1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
 - a. Level 3 - Extra Heavy-duty.
 - b. Physical Performance Level A, 1,000,000 cycles; in accordance with ANSI/SDI A250.4.
 - c. Model 1 - Full Flush.
 - d. Door Face Metal Thickness: 16 gauge, 0.053 inch, minimum.
 - e. Zinc Coating: A60/ZF180 galvannealed coating; ASTM A653/A653M.
 2. Door Core Material: Polystyrene, 1 lbs/cu ft minimum density.
 - a. Foam Plastic Insulation: Manufacturer's standard board insulation with maximum flame spread index (FSI) of 75, and maximum smoke developed index (SDI) of 450 in accordance with ASTM E84, and completely enclosed within interior of door.
 3. Door Thermal Resistance: Maximum assembly U-value of 0.37.
 4. Door Thickness: 1-3/4 inches, nominal.
 5. Top Closures: Flush with top of faces and edges.
 6. Door Face Sheets: Flush.
 7. Weatherstripping: See Section 08 7100.
 8. Door Finish: Factory primed.
 - a. Maximum Air Leakage: 3.0 cfm/sq ft of door opening at 0.10 inch w.g. pressure, when tested in accordance with UL 1784 at both ambient and elevated temperatures.
 - b. Gasketing: Provide gasketing or edge sealing as necessary to achieve leakage limit.
 - c. Label: Include the "S" label on fire-rating label of door.

2.4 HOLLOW METAL FRAMES

- A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.
- B. Exterior Door Frames: Full profile/continuously welded type.

1. Galvanizing: Components hot-dipped zinc-iron alloy-coated (galvannealed) in accordance with ASTM A653/A653M, with A40/ZF120 coating.
 2. Frame Metal Thickness: 14 gauge, 0.067 inch, minimum.
 3. Frame Finish: Factory primed.
 4. Weatherstripping: See Section 08 7100.
- C. Interior Door Frames, Non-Fire Rated: Face welded type.
1. Frame Metal Thickness: 16 gauge, 0.053 inch, minimum.
 2. Frame Finish: Factory primed.
- D. Frames for Wood Doors: Comply with frame requirements in accordance with corresponding door.
- E. Provide mortar guard boxes for hardware cut-outs in frames to be installed in masonry or to be grouted.
- F. Frames Wider than 48 inches: Reinforce with steel channel fitted tightly into frame head, flush with top.

2.5 FINISHES

- A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.

2.6 ACCESSORIES

- A. Door Window Frames: Door window frames with glazing securely fastened within door opening.
1. Size: As indicated on drawings.
 2. Frame Material: 18 gauge, 0.0478 inch, galvanized steel.
 3. Metal Finish: Factory Primed polyester powder coating.
- B. Glazing: As specified in Section 08 8000, field installed.
- C. Frame Anchors: Anchors of minimum size and type required by applicable door and frame standard, and suitable for performance level indicated.
1. Minimum of three anchors per jamb, with one additional anchor for frames with no floor anchor. Provide one additional anchor for each 24 inches of frame height above 7 feet.
 2. Postinstalled Expansion Anchor: Minimum 3/8-inch-diameter bolts with expansion shields or inserts, with manufacturer's standard pipe spacer.
 3. Material: ASTM A879/A879M, Commercial Steel (CS), 04Z coating designation; mill phosphatized.
- D. Astragals and Edges for Double Doors: Pairs of door astragals, and door edge sealing and protection devices.
1. UL listed products in compliance with requirements of authorities having jurisdiction.
 2. Provide surface mounted astragal to cover or fill space for full door height between pair of doors or door and adjacent jamb.
 3. Edge Type: Beveled edge
 4. Provide non-corroding fasteners at exterior locations.

- E. Mechanical Fasteners for Concealed Metal-to-Metal Connections: Self-drilling, self-tapping, steel with electroplated zinc finish.
- F. Grout for Frames: Mortar grout complying with ASTM C476 with maximum slump of 4 inches as measured in accordance with ASTM C143/C143M for hand troweling in place; plaster grout and thinner pumpable grout are prohibited.
- G. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions. Omit silencers on frames with seals or weatherstripping.
- H. Temporary Frame Spreaders: Provide for factory- or shop-assembled frames.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Verify that finished walls are in plane to ensure proper door alignment.

3.2 INSTALLATION

- A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
 - 1. Hollow-Metal Frame Installation: Comply with ANSI/SDI A250.11.
 - 2. Non-Fire-Rated Steel Door Installation: Comply with ANSI/SDI A250.8.
 - 3. Fire-Rated Doors: Install doors with clearances according to NFPA 80.
- B. Coordinate frame anchor placement with wall construction.
 - 1. In-Place Metal or Wood-Stud Partitions: Secure slip-on drywall frames in place according to manufacturer's written instructions.
 - 2. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
- C. Solidly pack mineral-fiber insulation inside frames installed in metal stud or concrete construction.
- D. Fully insulate exterior hollow metal frames with spray foam or batt insulation prior to installation. Insulate per NFPA 80 and manufacturer's guidelines.
- E. Install door hardware as specified in Section 08 7100.
 - 1. Comply with recommended practice for hardware placement of doors and frames in accordance with ANSI/SDI A250.6 or NAAMM HMMA 861.
- F. Comply with glazing installation requirements of Section 08 8000.
- G. Coordinate installation of electrical connections to electrical hardware items.

- H. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with postinstalled expansion anchors.
 - 1. Floor anchors may be set with power-actuated fasteners instead of postinstalled expansion anchors if so indicated and approved on Shop Drawings.
- I. Touch up damaged factory primer finishes.

3.3 TOLERANCES

- A. Clearances Between Door and Frame: Comply with related requirements of specified frame standards or custom guidelines indicated in accordance with SDI 117 or NAAMM HMMA 861.
- B. Maximum Diagonal Distortion: 1/16 inch measured with straight edge, corner to corner.

3.4 ADJUSTING

- A. Adjust for smooth and balanced door movement.

3.5 SCHEDULE

- A. Refer to Door and Frame Schedule on the drawings.

END OF SECTION 08 1113

SECTION 08 7100.13 - DOOR HARDWARE SCHEDULE

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Preliminary schedule of door hardware sets for swinging doors as indicated on drawings.

1.2 RELATED REQUIREMENTS

- A. Section 08 7100 - Door Hardware: Requirements to comply with in coordination with this section.
- B. Section 08 7113 - Power Door Operators: Requirements for power door operators.

1.3 REFERENCE STANDARDS

- A. BHMA A156.18 - Standard for Materials and Finishes; 2020.

1.4 SUBMITTALS

- A. Comply with submittal requirements as indicated in Section 08 7100.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Only manufacturers listed in Door Hardware Schedule or Section 08 7100 are considered acceptable, unless noted otherwise.
- B. Obtain each type of door hardware as indicated from a single manufacturer and single supplier.
- C. Products are listed and certified compliant with specified standards by BHMA (CPD).
- D. Manufacturer's Abbreviations: Coordinate with manufacturers listed in Section 08 7100.
 - 1. COR - Corbin Russwin.
 - 2. FAL - Falcon.
 - 3. GLY - Glynn Johnson.
 - 4. HAG - Hager.
 - 5. IVE - Ives.
 - 6. LCN - LCN.
 - 7. NGP - National Guard Products.
 - 8. REE - Reese
 - 9. ROC - Rockwood.
 - 10. SCH - Schlage.
 - 11. VON - Von Duprin.

2.2 DESCRIPTION

- A. Door hardware sets provided represent the design intent, they are only a guideline and should not be considered a detailed or complete hardware schedule.
 - 1. Necessary items that are not included in a Hardware Set should be added and have the appropriate additional hardware as required for proper application and functionality.
 - 2. Door hardware supplier is responsible for providing proper size and hand of door for products required in accordance with Door Hardware Schedule and as indicated on drawings.
 - 3. Quantities listed are for each Pair (PR) of doors, or for each Single (SGL) door, as indicated in hardware sets.

2.3 LOCK FUNCTION CODES

- A. Function Codes for Cylindrical Locks: Complying with BHMA A156.5.
 - 1. Code F75; Passage: Latch retracted by knobs/levers at all times.
 - 2. Code F76; Privacy Lock: Outside knob/lever locked by pushbutton on inside knob/lever. Rotating inside knob/lever or closing door releases/unlocks button. Emergency release in outside knob/lever.
 - 3. Code F80; Communicating Lock: Deadlocking latch bolt by levers except when either lever is locked by key in its own cylinder.
 - 4. Code F84; Classroom Lock: Outside knob/lever locked/unlocked by key in outside knob/lever. Inside knob/lever always free. Deadlocking latchbolt.
 - 5. Code F86; Storeroom Lock: Outside knob/lever always locked/rigid. Latchbolt retracted by key in outside knob/lever or by rotating inside knob/lever. Inside knob/lever always free. Deadlocking latchbolt.
 - 6. Code F109; Entry/Office Lock: Turn/Push button locking. Pushing and turning button on inside locks outside knob/lever requiring use of a key until button is manually unlocked. Push button locking. Pushing button locks the outside knob/lever until unlocked by key or by turning the inside knob/lever. Inside knob/lever always free.
 - 7. Code F110; Classroom Security Lock: Key cylinder both sides. Outside lever locked/unlocked by key in either lever. Inside lever always free.
- B. Function Codes for Exit Devices: Complying with BHMA A156.3.
 - 1. Code 01; Exit Device: Exit only/no trim.
 - 2. Code 03; Exit Device: Entrance by trim when latchbolt is retracted by key (pullside). Unit is locked when the key is removed.
 - 3. Code 08; Exit Device: Entrance by knob/lever. Key (pullside) locks/unlocks knob/lever.

2.4 FINISHES

- A. Finishes: Complying with BHMA A156.18.
 - 1. Code 626: Satin chromium plated over nickel, with brass or bronze base material (former US equivalent US26D).
 - 2. Code 628: Clear anodized aluminum.
 - 3. Code 630: Satin stainless steel, with stainless steel 300 series base material (former US equivalent US32D).
 - 4. Code 652: Satin chromium plated over nickel, with steel base material (former US equivalent US26D).

PART 3 EXECUTION

3.1 DOOR HARDWARE SCHEDULE

- A. Organize listing of door hardware components within each hardware set in compliance with 10-Part scheduling sequence indicated in DHI (H&S), unless otherwise indicated.
- B. **HARDWARE SCHEDULE NOTES:**
1. Wall stop or overhead stop to be provided where scheduled as installation configuration warrants.
 2. ADD door seal set to all smoke- or fire-resistance rated doors - see Door Schedule. Gasketing to be ZRO 188S or approved equal, length as required.
 3. All doors specified without weatherstripping, gaskets or seals shall have frame silencers. Provide IVE SR64 or approved equal, minimum 3 per door (2 for double doors).
 4. Interface electric strike or latch retraction release operation with door security / lockdown system and power operator where indicated

3.2 **HARDWARE SET #01:**

- A. For use on Door Number(s): 101A, 101B.

		ITEM	DESCRIPTION		
HAG	6 EA.	HINGES	BB1168 - 4 1/2" X 4 1/2" - US26D		
LCN	2 EA.	CLOSER	4040XP - HSCUSH - ALUM		
VON	2 EA.	EXIT DEVICE	9927L #17 3' US26D LBR		
COR	2 EA.	RIM CYLINDER	3000-200-626		
ROC	2 EA.	KICK PLATES	K1050 - 10" x 35" - US32D		
NGP	2 EA.	ASTRAGAL	A605A - 84"		
NGP	1 ROLL	GASKETING	2525B - 20'		

3.3 **HARDWARE SET #02**

- A. For use on Door Number: 101C.

		ITEM	DESCRIPTION		
HAG	6 EA.	HINGES	BB1168 - 4 1/2" X 4 1/2" - US26D		
LCN	1 EA.	OVERHEAD STOP	451H - SP28		
LCN	1 EA.	CLOSER	4040XP - Hw/PA - ALUM		
VON	1 EA.	EXIT DEVICE	9975L #17 3' US26D		
COR	1 EA.	MORTISE CYLINDER	1000-114-626		
ROC	1 EA.	FLUSHBOLT	555 - US32D		
ROC	1 EA.	DP STRIKE	570 - US32D		
ROC	2 EA.	WALL STOP	409 - US32D		
ROC	1 EA.	KICK PLATES	K1050 - 10" X 19" - US32D		
ROC	1 EA.	KICK PLATES	K1050 - 10" X 34" - US32D		
NGP	1 EA.	ASTRAGAL	A605A - 84"		
NGP	1 ROLL	GASKETING	2525B - 27'		

3.4 **HARDWARE SET #2.1- ALTERNATE:**

A. For use on Door Number: 101C.

		ITEM	DESCRIPTION		
HAG	6 EA.	HINGES	BB1168 - 4 1/2" X 4 1/2" - US26D		
LCN	1 EA.	OVERHEAD STOP	451H - SP28		
LCN	1 EA.	AUTO OPERATOR	4642 - REG - ALUM		
LCN	2 EA.	ACTUATOR	8310-856T		
LCN	2 EA.	SURFACE BOX	8310-868S		
VON	1 EA.	EXIT DEVICE	QEL9975L #17 3' US26D		
COR	1 EA.	MORTISE CYLINDER	1000-114-626		
VON	1 EA.	POWER SUPPLY	PS902-2RS		
VON	1 EA.	POWER TRANSFER	EPT-10-SP28		
ROC	1 EA.	FLUSHBOLT	555 - US32D		
ROC	1 EA.	DP STRIKE	570 - US32D		
ROC	2 EA.	WALL STOP	409 - US32D		
ROC	1 EA.	KICK PLATES	K1050 - 10" X 19" - US32D		
ROC	1 EA.	KICK PLATES	K1050 - 10" X 34" - US32D		
NGP	1 EA.	ASTRAGAL	A605A - 84"		
NGP	1 ROLL	GASKETING	2525B - 27'		

3.5 **HARDWARE SET #3.1 - ALTERNATE:**

A. For use on Door Number: 104.

		ITEM	DESCRIPTION		
HAG	6 EA.	HINGES	BB1191 - 4 1/2" X 4-1/2" - US32D - NRP		
LCN	1 EA.	AUTO OPERATOR	4642 - REG - ALUM		
LCN	2 EA.	ACTUATOR	8310-856T		
LCN	2 EA.	SURFACE BOX	8310-868S		
LCN	1 EA.	WEATHER RING	8310-800		
GLY	1 EA.	OVERHEAD STOP	904S US32D @ ACTIVE DOOR		
GLY	1 EA.	OVERHEAD STOP	904H US32D @ INACTIVE DOOR		
VON	1 EA.	POWER TRANSFER	EPT-10 - SP28		
SCHE	2 EA.	DOOR POSITION SWITCH	679-05HM		
VON	1 EA.	EXIT DEVICE	LX-RX-QEL-997SNL 3' US26D		
COR	1 EA.	MORTISE CYLINDER	1000-114-626		
VON	1 EA.	POWER SUPPLY	PS902-2RS		
ROC	2 EA.	FLUSH BOLTS	555 US26D		
NGP	1 EA.	THRESHOLD	425E - 72"		
NGP	1 EA.	DRIP CAP	16A - 76"		
NGP	2 EA.	SWEEPS	D698A - 36"		
NGP	1 EA.	WEATHERSTRIP	600A 84" @ ACTIVE DOOR		

NGP	1 EA.	WEATHERSTRIP	700SA - 72"		
NGP	2 EA.	WEATHERSTRIP	160SA - 84"		
NGP	2 EA.	CORNER PAD	54CP		
NGP	1 ROLL	GASKETING	2525B - 7' @ Z-BAR ASTRAGAL		
ROC	2 EA.	SILENCERS	608		
		CARD READER	BY DIV. 28 1000 - CONTROLLED ACCESS SYSTEMS		
		INSTALL WEATHERSTRIP BEFORE CLOSER			

END OF SECTION 08 7100.13

SECTION 08 8000 - GLAZING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Insulating glass units.
- B. Accessories.

1.2 RELATED REQUIREMENTS

- A. Section 08 1113 - Hollow Metal Doors and Frames: Glazed lites in doors.

1.3 REFERENCE STANDARDS

- A. ASTM C864 - Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers; 2005 (Reapproved 2026).
- B. ASTM C1376 - Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Flat Glass; 2021a.
- C. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation; 2019.

1.4 PERFORMANCE REQUIREMENTS

- A. General: Installed glazing systems shall withstand normal thermal movement and wind and impact loads without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.
- B. Delegated Design: Design glass, including comprehensive engineering analysis according to ASTM E 1300 and ICC's IBC by qualified engineer, using the following design criteria:
 - 1. Design Wind Pressures: Determine design wind pressures applicable to Project according to ASCE/SEI 7, based on location, exposure category, basic wind speed, and heights above grade indicated on drawings.
 - 2. Vertical Glazing: For glass surfaces sloped 15 degrees or less from vertical, design glass to resist design wind pressure based on glass type factors for short-duration load.
 - 3. Maximum Lateral Deflection: For glass supported on all four edges, limit center of glass deflection at design wind pressure to not more than 1/50 times the short-side length of 1", whichever is less.
 - 4. Differential Shading: Design glass to resist thermal stresses induced by differential shading within individual glass lites.
- C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on glass framing members and glazing components.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data on All Specified Glazing Types: Provide structural, physical and environmental characteristics, size limitations, special handling and installation requirements.
- C. Product Data on Glazing Compounds and Accessories: Provide chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.
- D. Samples: Submit one samples 12 by 12 inch in size of glass units.
 1. Samples not required for glass Types .
 2. Provide samples of size sufficient to represent graphics or pattern to be supplied, no less than 8 inches square.
- E. Certificate: Certify that products of this section meet or exceed specified requirements.
- F. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years documented experience.

1.7 FIELD CONDITIONS

- A. Do not install glazing when ambient temperature is less than 40 degrees F.
- B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.8 WARRANTY

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Insulating Glass Units: Provide a five (5) year manufacturer warranty to include coverage for seal failure, interpane dusting or misting, including providing products to replace failed units.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Glass Fabricators:
 1. Trulite Glass & Aluminum Solutions, LLC: www.trulite.com/#sle.

2. Viracon, Inc: www.viracon.com/#sle.
3. Substitutions: See Section 01 6000 - Product Requirements.

B. Float Glass Manufacturers:

1. Cardinal Glass Industries: www.cardinalcorp.com/#sle.
2. Guardian Glass, LLC: www.guardianglass.com/#sle.
3. Pilkington North America Inc: www.pilkington.com/na/#sle.
4. Saint Gobain North America: www.saint-gobain.com/#sle.
5. Vitro Architectural Glass (formerly PPG Glass): www.vitroglazings.com/#sle.
6. Substitutions: See Section 01 6000 - Product Requirements.

2.2 GLASS MATERIALS

2.3 INSULATING GLASS UNITS

A. Manufacturers:

1. Glass: Any of the manufacturers specified for float glass.

B. Insulating Glass Units, General: Types as indicated and located on drawings.

1. Durability: Certified by an independent testing agency to comply with ASTM E2190.
2. Coated Glass: Comply with requirements of ASTM C1376 for pyrolytic (hard-coat) or magnetic sputter vapor deposition (soft-coat) type coatings on flat glass; coated vision glass, Kind CV; coated overhead glass, Kind CO; or coated spandrel glass, Kind CS.
3. Warm-Edge Spacers: Low-conductivity thermoplastic with desiccant warm-edge technology design.
 - a. Spacer Width: As required for specified insulating glass unit.
 - b. Spacer Height: Manufacturer's standard.
4. Spacer Color: Black.
5. Edge Seal:
 - a. Dual-Sealed System: Provide polyisobutylene sealant as primary seal applied between spacer and glass panes, and silicone, polysulfide, or polyurethane sealant as secondary seal applied around perimeter.
 - b. Color: Black.
6. Purge interpane space with dry air, hermetically sealed.

C. Type IG-20 - Insulating Glass Units: Clear safety glazing.

1. Applications, exterior glazing unless otherwise indicated:
 - a. Glazed lites in exterior doors.
 - b. Glazed sidelights and panels next to doors.
 - c. Other locations required by applicable federal, state, and local codes and regulations.
 - d. Other locations indicated on drawings.
2. Space between lites filled with argon.
3. Glass Type: Same as Type IG-10 except use fully tempered float glass for both outboard and inboard lites.
4. Total Thickness: 1 inch.
5. Warm-edge spacer.
6. Visible Light Transmittance (VLT): _____ percent, nominal.
7. Shading Coefficient: _____, nominal.
8. Solar Heat Gain Coefficient (SHGC): _____, nominal.

- D. Type IG-21 - Insulating Glass Units: Tinted safety glazing.
1. Applications:
 - a. Glazed lites in exterior doors.
 - b. Other locations required by applicable federal, state, and local codes and regulations.
 2. Space between lites filled with 90% argon, 10% air with energy spacer.
 3. Glass Type: fully tempered float glass for both outboard and inboard lites.
 4. Total Thickness: 1 inch.
 5. Minimum thickness for each glass lite: 6 mm.
 6. Exterior Lite: 6mm Vitro Solarban 70 Low-E #2.
 7. Interior Lite: 6 mm Pilkington Energy Advantage on Clear Low-E #4.
 8. Solar Heat Gain Coefficient: Fixed Windows: 0.4, Operable Windows: 0.36.

2.4 ACCESSORIES

- A. Setting Blocks: Silicone, with 80 to 90 Shore A durometer hardness; ASTM C864 Option II. Length of 0.1 inch for each square foot of glazing or minimum 4 inch by width of glazing rabbet space minus 1/16 inch by height to suit glazing method and pane weight and area.
- B. Spacer Shims: Neoprene, 50 to 60 Shore A durometer hardness; ASTM C864 Option II. Minimum 3 inch long by one half the height of the glazing stop by thickness to suit application, self adhesive on one face.
- C. Glazing Splines: Resilient silicone extruded shape to suit glazing channel retaining slot; ASTM C864 Option II; color black.

PART 3 EXECUTION

3.1 VERIFICATION OF CONDITIONS

- A. Verify that openings for glazing are correctly sized and within tolerances, including those for size, squareness, and offsets at corners.
- B. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and support framing is ready to receive glazing system.
- C. Proceed with glazing system installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean contact surfaces with appropriate solvent and wipe dry within maximum of 24 hours before glazing. Remove coatings that are not tightly bonded to substrates.
- B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- C. Prime surfaces scheduled to receive sealant where required for proper sealant adhesion.

3.3 INSTALLATION, GENERAL

- A. Install glazing of Types designated in locations indicated in drawings.
- B. Install glazing in compliance with written instructions of glass, gaskets, and other glazing material manufacturers, unless more stringent requirements are indicated, including those in glazing referenced standards.
- C. Do not exceed edge pressures around perimeter of glass lites as stipulated by glass manufacturer.
- D. Set glass lites of system with uniform pattern, draw, bow, and similar characteristics.
- E. Set glass lites in proper orientation so that coatings face exterior or interior as indicated.

3.4 INSTALLATION - DRY GLAZING METHOD (GASKET GLAZING)

- A. Application - Exterior and/or Interior Glazed: Set glazing infills from either the exterior or the interior of the building.
- B. Place setting blocks at 1/4 points with edge block no more than 6 inch from corners.
- C. Rest glazing on setting blocks and push against fixed stop with sufficient pressure on gasket to attain full contact.
- D. Install removable stops without displacing glazing gasket; exert pressure for full continuous contact.

3.5 INSTALLATION - DRY GLAZING METHOD (TAPE AND GASKET SPLINE GLAZING)

- A. Application - Exterior Glazed: Set glazing infills from the exterior of the building.
- B. Cut glazing tape to length; install on glazing pane. Seal corners by butting tape and sealing junctions with butyl sealant.
- C. Place setting blocks at 1/4 points with edge block no more than 6 inch from corners.
- D. Rest glazing on setting blocks and push against fixed stop with sufficient pressure to attain full contact.
- E. Install removable stops without displacing glazing spline. Exert pressure for full continuous contact.
- F. Carefully trim protruding tape with knife.

3.6 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements for additional requirements.
- B. Glass and Glazing product manufacturers to provide field surveillance of the installation of their products.
- C. Monitor and report installation procedures and unacceptable conditions.

3.7 CLEANING

- A. Remove excess glazing materials from finish surfaces immediately after application using solvents or cleaners recommended by manufacturers.
- B. Remove nonpermanent labels immediately after glazing installation is complete.
- C. Clean glass and adjacent surfaces after sealants are fully cured.
- D. Clean glass on both exposed surfaces not more than 4 days prior to Date of Substantial Completion in accordance with glass manufacturer's written recommendations.

3.8 PROTECTION

- A. After installation, mark pane with an 'X' by using removable plastic tape or paste; do not mark heat absorbing or reflective glass units.
- B. Remove and replace glass that is damaged during construction period prior to Date of Substantial Completion.

END OF SECTION 08 8000