

March 15, 2024

ADDENDUM #1

Solicitation#24-7069-02 John Marshall High School Wall Repairs

This Addendum supplements, modifies, deletes from, or adds to the original solicitation noted above and all of the requirements of the addendum are herein made a part of the solicitation and any resulting contract documents. Please sign and return this addendum to the Issuing Agency at Richmond Public Schools, Dept. of Procurement and Property Management, 2325 Maury Street, Richmond, VA 23224

This Addendum consists of eighteen (18) pages.

Please make the following changes/clarifications/additions:

SECTION 000001 - BID FORM

1. **REPLACE** Paragraph C – Delivery Schedule to read as follows:

If awarded a Contract, the Undersigned agrees to complete the work within the following consecutive calendar days from the date of receipt of written Notice to Proceed.

- 1. Lot 1 Completion of all Demolition and Abatement Work: August 16, 2024.
- 2. Lot 1 Substantial Completion: <u>September 19, 2024.</u>
- 3. Lot 1 Final Completion: <u>30</u> days following Substantial Completion.
- 1. Lot 2 Completion of all Demolition and Abatement Work: <u>August 16, 2024.</u>
- 2. Lot 2 Substantial Completion: <u>September 19, 2024.</u>
- 3. Lot 2 Final Completion: <u>30</u> days following Substantial Completion.
- 1. Lot 3 Substantial Completion: October 19, 2024.
- 2. Lot 3 Final Completion:
 30
 days following Substantial Completion.

SECTION 011000 – SUMMARY OF WORK

- 1. **REPLACE** Paragraph 1.6 Construction Phasing Schedule to read as follows:
 - A. The following represents the project phases and schedule:
 - 1. Notice to Proceed Issued on or before April 30, 2024. Pre-construction activities may begin at this time.
 - 2. Last day of school May 31, 2024. No on-site work may begin prior to this date.
 - 3. Lot #1 Schedule:
 - a. On-site work begins June 1, 2024
 - b. Completion of all demolition and hazardous material abatement August 16, 2024
 - c. Substantial completion September 19, 2024



- d. Final Completion within 30 days following substantial completion.
- 4. Lot #2 Schedule:
 - a. On-site work begins June 1, 2024
 - b. Completion of all demolition and hazardous material abatement August 16, 2024.
 - c. Substantial completion September 19, 2024
 - d. Final Completion within 30 days following substantial completion.
- 5. Lot #3 Schedule:
 - a. On-site work begins June 1, 2024
 - b. Substantial completion October 19, 2024
 - c. Final Completion within 30 days following substantial completion.

SPECIFICATIONS – VOLUME 2

SECTION 087100 – DOOR HARDWARE

1. **REPLACE** this sheet in its entirety and replace it with the attached section.

ARCHITECTURAL DRAWING

DRAWING A1.0 - OVERALL / INDEX PLAN

1. **REPLACE** this sheet in its entirety and replace it with the attached sheet.

DRAWING A6.1 - DOOR SCHEDULE AND DETAILS

1. **REPLACE** this sheet in its entirety and replace it with the attached sheet.

DRAWING A6.2 - ALUMINUM STOREFRONT ELEVATIONS AND DETAILS

1. **REPLACE** this sheet in its entirety and replace it with the attached sheet.

My signature below acknowledges receipt of this Addendum and certifies that my submission includes all information, modifications, additions or deletions pertaining to the Addendum and the solicitation.

COMPLETE LEGAL NAME OF BIDDER:

SIGNATURE: _____

DATE: _____

Prepared by: Mary Beth Reed Construction Procurement Manager RPS Procurement & Property Management

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section Includes: Finish Hardware for door openings, except as otherwise specified herein.
 - 1. Door hardware for steel (hollow metal) doors.
 - 2. Keyed cylinders as indicated.
- B. Related Sections:
 - 1. Division 6: Rough Carpentry.
 - 2. Division 8: Hollow Metal Doors and Frames.
- C. References: Comply with applicable requirements of the following standards. Where these standards conflict with other specific requirements, the most restrictive shall govern.
 - 1. Builders Hardware Manufacturing Association (BHMA)
 - 2. NFPA 101 Life Safety Code
 - 3. NFPA 80 Fire Doors and Windows
 - 4. ANSI-A156.xx- Various Performance Standards for Finish Hardware
 - 5. UL10C Positive Pressure Fire Test of Door Assemblies
 - 6. ANSI-A117.1 Accessible and Usable Buildings and Facilities 2009
 - 7. DHI /ANSI A115.IG Installation Guide for Doors and Hardware.
- D. Intent of Hardware Groups
 - 1. Should items of hardware not definitely specified be required for completion of the Work, furnish such items of type and quality comparable to adjacent hardware and appropriate for service required.
 - 2. Where items of hardware aren't definitely or correctly specified, are required for completion of the Work, a written statement of such omission, error, or other discrepancy to be submitted to Architect, prior to date specified for receipt of bids for clarification by addendum; or, furnish such items in the type and quality established by this specification, and appropriate to the service intended.
- 1.2 SUBSTITUTIONS:
 - A. Comply with Division 1.
- 1.3 SUBMITTALS:
 - A. Comply with Division 1.

- B. Special Submittal Requirements: Combine submittals of this Section with Sections listed below to ensure the "design intent" of the system/assembly is understood and can be reviewed together.
- C. Product Data: Manufacturer's specifications and technical data including the following:
 - 1. Detailed specification of construction and fabrication.
 - 2. Manufacturer's installation instructions.
 - 3. Wiring diagrams for each electric product specified. Coordinate voltage with electrical before submitting.
 - 4. Copies of catalog cuts with hardware schedule.
 - 5. Provide 9001-Quality Management and 14001-Environmental Management for products listed in Materials Section 2.2
- D. Shop Drawings Hardware Schedule: Submit 6 complete reproducible copy of detailed hardware schedule in a vertical format.
 - 1. List groups and suffixes in proper sequence.
 - 2. Completely describe door and list architectural door number.
 - 3. Manufacturer, product name, and catalog number.
 - 4. Function, type, and style.
 - 5. Size and finish of each item.
 - 6. Mounting heights.
 - 7. Explanation of abbreviations and symbols used within schedule.
- E. Templates: Submit templates and "reviewed Hardware Schedule" to door and frame supplier and others as applicable to enable proper and accurate sizing and locations of cutouts and reinforcing.
 - 1. Templates, wiring diagrams and "reviewed Hardware Schedule" of electrical terms to electrical for coordination and verification of voltages and locations.
- F. Samples: (If requested by the Architect)
 - 1. 1 sample of Lever and Rose/Escutcheon design, (pair).
 - 2. 3 samples of metal finishes
- G. Contract Closeout Submittals: Comply with Division 1 including specific requirements indicated.
 - 1. Operating and maintenance manuals: Submit 3 sets containing the following.
 - a. Complete information in care, maintenance, and adjustment, and data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Name, address, and phone number of local representatives for each manufacturer.
 - d. Parts list for each product.

- 2. Copy of final hardware schedule, edited to reflect, "As installed".
- 3. Copy of final keying schedule
- 4. One set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

1.4 QUALITY ASSURANCE

- A. Comply with Division 1.
 - 1. Statement of qualification for distributor and installers.
 - 2. Statement of compliance with regulatory requirements and single source responsibility.
 - 3. Distributor's Qualifications: Firm with 3 years experience in the distribution of commercial hardware.
 - a. Distributor to employ full time Architectural Hardware Consultants (AHC) for the purpose of scheduling and coordinating hardware and establishing keying schedule.
 - b. Hardware Schedule shall be prepared and signed by an AHC.
 - 4. Installer's Qualifications: Firm with 3 years experienced in installation of similar hardware to that required for this Project, including specific requirements indicated.
 - 5. Regulatory Label Requirements: Provide testing agency label or stamp on hardware for labeled openings.
 - a. Provide UL listed hardware for labeled and 20-minute openings in conformance with requirements for class of opening scheduled.
 - b. Underwriters Laboratories requirements have precedence over this specification where conflict exists.
 - 6. Single Source Responsibility: Except where specified in hardware schedule, furnish products of only one manufacturer for each type of hardware.
- B. Review Project for extent of finish hardware required to complete the Work. Where there is a conflict between these Specifications and the existing hardware, notify the Architect in writing and furnish hardware in compliance with the Specification unless otherwise directed in writing by the Architect.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Packing and Shipping: Comply with Division 1.
 - 1. Deliver products in original unopened packaging with legible manufacturer's identification.
 - 2. Package hardware to prevent damage during transit and storage.
 - 3. Mark hardware to correspond with "reviewed hardware schedule".
 - 4. Deliver hardware to door and frame manufacturer upon request.
- B. Storage and Protection: Comply with manufacturer's recommendations.

1.6 PROJECT CONDITIONS:

- A. Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for the proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents.
- B. Review Shop Drawings for doors and entrances to confirm that adequate provisions will be made for the proper installation of hardware.

1.7 WARRANTY:

- A. Refer to Conditions of the Contract
- B. Manufacturer's Warranty:
 - 1. Closers: Thirty years
 - 2. Exit Devices: Three Years
 - 3. Locksets: Ten years
 - 4. All other Hardware: Two years.
- 1.8 OWNER'S INSTRUCTION:
 - A. Instruct Owner's personnel in operation and maintenance of hardware units.
- 1.9 MAINTENANCE:
 - A. Extra Service Materials: Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1 Closeout Submittals Section.
 - 1. Special Tools: Provide special wrenches and tools applicable to each different or special hardware component.
 - 2. Maintenance Tools: Provide maintenance tools and accessories supplied by hardware component manufacturer.
 - 3. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage and protection of extra service materials.
 - B. Maintenance Service: Submit for Owner's consideration maintenance service agreement for electronic products installed.

PART 2 - PRODUCTS

- 2.1 MANUFACTURERS:
 - A. The following manufacturers are approved subject to compliance with requirements of the Contract Documents. Approval of manufacturers other than those listed shall be in accordance with Division 1.

<u>ltem</u> :	<u>Manufacturer</u> :	<u>Approved</u> :
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Hinges	Stanley	Bommer, Hager
Continuous Hinges	Stanley	Bommer, Select
Locksets	Best	Schlage, Sargent
Cylinders	Best Cormax	
Exit Devices	Precision	Von Duprin 98-32D, Sargent 19-GL-80
Closers	Stanley D-4550	Dorma 8900, Norton 7500
Push/Pull Plates	Trimco	Burns, Hager
Push/Pull Bars	Trimco	Burns, Hager
Protection Plates	Trimco	Burns, Hager
Overhead Stops	ABH	Dorma, Glynn Johnson
Door Stops	Trimco	Burns, Hager
Flush Bolts	Trimco	Hager, Burns
Coordinator & Brackets	Trimco	Hager, Burns
Threshold & Gasketing	National Guard	Reese, K.N. Crowder

2.2 MATERIALS:

- A. Hinges:
 - 1. Template screw hole locations
 - 2. Minimum of 2 permanently lubricated non-detachable bearings
 - 3. Equip with easily seated, non-rising pins
 - 4. Sufficient size to allow 180-degree swing of door
 - 5. Furnish hinges with five knuckles and flush [concealed] bearings
 - 6. Provide hinge type as listed in schedule.
 - 7. Furnish 3 hinges per leaf to 7-foot 6-inch height. Add one for each additional 30 inches in height or fraction thereof.
 - 8. Tested and approved by BHMA for all applicable ANSI Standards for type, size, function and finish
 - 9. UL10C listed for Fire rated doors.
- B. Geared Continuous Hinges:
 - 1. Tested and approved by BHMA for ANSI A156.26-1996 Grade 1
 - 2. Anti-spinning through fastener
 - 3. UL10C listed for 3-hour Fire rating
 - 4. Non-handed
 - 5. Lifetime warranty
 - 6. Provide Fire Pins for required fire ratings
 - 7. Sufficient size to permit door to swing 180 degrees
- C. Exit Devices shall:
 - 1. Tested and approved by BHMA for ANSI 156.3, Grade 1
 - 2. Provide 9001-Quality Management and 14001-Environmental Management.
 - 3. Furnish UL or recognized independent laboratory certified mechanical operational testing to 10 million cycles minimum.
 - 4. Provide a deadlocking latchbolt

- 5. Non-fire rated exit devices shall have cylinder dogging.
- 6. Touchpad shall be "T" style
- 7. Exposed components shall be of architectural metals and finishes.
- 8. Lever design shall match lockset lever design
- 9. Provide strikes as required by application.
- 10. Fire exit devices to be listed for UL10C
- 11. UL listed for Accident Hazard
- 12. Shall consist of a cross bar or push pad, the actuating portion of which extends across, shall not be less than one half the width of the door leaf.
- 13. Aluminum vertical rod assemblies are acceptable only when provide with the manufacturers optional top and bottom stainless steel rod guard protectors.
- D. Cylinders:
 - 1. Provide the necessary cylinder housings, collars, rings & springs as recommended by the manufacturer for proper installation.
 - 2. Provide the proper cylinder cams or tail piece as required to operate all locksets and other keyed hardware items listed in the hardware sets.
 - 3. Coordinate and provide as required for related sections.
- E. Door Closers shall:
 - 1. Tested and approved by BHMA for ANSI 156.4, Grade 1
 - 2. UL10C certified
 - 3. Provide 9001-Quality Management and 14001-Environmental Management.
 - 4. Closer shall have extra-duty arms and knuckles
 - 5. Conform to ANSI 117.1
 - 6. Maximum 2 7/16-inch case projection with non-ferrous cover
 - 7. Separate adjusting valves for closing and latching speed, and backcheck
 - 8. Provide adapter plates, shim spacers and blade stop spacers as required by frame and door conditions
 - 9. Full rack and pinion type closer with 1½ "minimum bore
 - 10. Mount closers on non-public side of door, unless otherwise noted in specification
 - 11. Closers shall be non-handed, non-sized and multi-sized.
- F. Door Stops: Provide a dome floor or wall stop for every opening as listed in the hardware sets.
 - 1. Wall stop and floor stop shall be wrought bronze, brass or stainless steel.
 - 2. Provide fastener suitable for wall construction.
 - 3. Coordinate reinforcement of walls where wall stop is specified.
 - 4. Provide dome stops where wall stops are not practical. Provide spacers or carpet riser for floor conditions encountered
- G. Over Head Stops: Provide a Surface mounted or concealed overhead when a floor or wall stop cannot be used or when listed in the hardware set.
 - 1. Concealed overhead stops shall be heavy duty bronze or stainless steel.
 - 2. Surface overhead stops shall be heavy duty bronze or stainless steel.

- H. Push Plates: Provide with four beveled edges ANSI J301, .050 thickness, size as indicated in hardware set. Furnish oval-head countersunk screws to match finish.
- I. Pulls with plates: Provide with four beveled edges ANSI J301, .050 thickness Plate s with ANSI J401 Pull as listed in hardware set. Provide proper fasteners for door construction.
- J. Kickplates: Provide with four beveled edges ANSI J102, 10 inches high by width less 2 inches on single doors and 1 inch on pairs of doors. Furnish oval-head countersunk screws to match finish.
- K. Door Bolts: Flush bolts for wood or metal doors.
 - 1. Provide a set of Automatic bolts, Certified ANSI/BHMA 156.3 Type 25 for hollow metal label doors.
 - 2. Provide a set of Automatic bolts, Certified ANSI/BHMA 156.3 Type 27 at wood label doors.
 - 3. Manual flush bolts, Certified ANSI/BHMA 156.16 at openings where allowed local authority.
 - 4. Provide Dust Proof Strike, Certified ANSI/BHMA 156.16 at doors with flush bolts without thresholds.
- L. Coordinator and Brackets: Provide a surface mounted coordinator when automatic bolts are used in the hardware set.
 - 1. Coordinator, Certified ANSI/BHMA A1156.3 Type 21A for full width of the opening.
 - 2. Provide mounting brackets for soffit applied hardware.
 - 3. Provide hardware preparation (cutouts) for latches as necessary.
- M. Seals: All seals shall be finished to match adjacent frame color. Seals shall be furnished as listed in schedule. Material shall be UL listed for labeled openings.
- N. Weatherstripping: Provide at head and jambs only those units where resilient or flexible seal strip is easily replaceable. Where bar-type weatherstrip is used with parallel arm mounted closers install weatherstrip first.
 - 1. Weatherstrip shall be resilient seal of (Neoprene, Polyurethane, Vinyl, Pile, Nylon Brush, Silicone)
 - 2. UL10C Positive Pressure rated seal set when required.
- O. Door Bottoms/Sweeps: Surface mounted or concealed door bottom where listed in the hardware sets.
 - 1. Door seal shall be resilient seal of (Neoprene, Polyurethane, Nylon Brush, Silicone)
 - 2. UL10C Positive Pressure rated seal set when required.
- P. Thresholds: Thresholds shall be aluminum beveled type with maximum height of 1/2" for conformance with ADA requirements. Furnish as specified and per details. Provide fasteners and screws suitable for floor conditions.

- Q. Provide one wall mounted Telkee, Lund or MMF series key cabinet complete with hooks, index and tags to accommodate 50% expansion. Coordinate mounting location with architect.
- R. Silencers: Furnish silencers on all interior frames, 3 for single doors, 2 for pairs. Omit where any type of seals occur.

2.3 FINISH:

- A. Designations used in Schedule of Finish Hardware 3.05, and elsewhere to indicate hardware finishes are those listed in ANSI/BHMA A156.18 including coordination with traditional U.S. finishes shown by certain manufacturers for their products
- B. Powder coat door closers to match other hardware, unless otherwise noted.
- C. Aluminum items shall be finished to match predominant adjacent material. Seals to coordinate with frame color.

2.4 KEYS AND KEYING:

- A. Provide keyed brass construction cores and keys during the construction period. Construction control and operating keys and core shall not be part of the Owner's permanent keying system or furnished in the same keyway (or key section) as the Owner's permanent keying system. Permanent cores and keys (prepared according to the accepted keying schedule) will be furnished to the Owner.
- B. Cylinders, removable and interchangeable core system: Best CORMAX[™] Patented 7-pin.
- C. Permanent keys and cores: Stamped with the applicable key mark for identification. These visual key control marks or codes will not include the actual key cuts. Permanent keys will also be stamped "Do Not Duplicate."
- D. Transmit Grand Masterkeys, Masterkeys and other Security keys to Owner by Registered Mail, return receipt requested.
- E. Furnish keys in the following quantities:
 - 1. 1 each Grand Masterkeys
 - 2. 4 each Masterkeys
 - 3. 2 each Change keys each keyed core
 - 4. 4 each Construction masterkeys
 - 5. 1 each Control keys
- F. The Owner, or the Owner's agent, will install permanent cores and return the construction cores to the Hardware Supplier. Construction cores and keys remain the property of the Hardware Supplier.
- G. Keying Schedule: Arrange for a keying meeting, and programming meeting with Architect Owner and hardware supplier, and other involved parties to ensure locksets and locking

hardware, are functionally correct and keying and programming complies with project requirements. Furnish 3 typed copies of keying and programming schedule to Architect.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of conditions: Examine doors, frames, related items and conditions under which Work is to be performed and identify conditions detrimental to proper and or timely completion.
 - 1. Do not proceed until unsatisfactory conditions have been corrected.

3.2 HARDWARE LOCATIONS:

- A. Mount hardware units at heights indicated in the following publications except as specifically indicated or required to comply with the governing regulations.
 - 1. Recommended Locations for Builder's Hardware for Standard Steel Doors and Frames, by the Door and Hardware Institute (DHI).
 - 2. Recommended locations for Architectural Hardware for flush wood doors (DHI).
 - 3. WDMA Industry Standard I.S.-1A-04, Industry Standard for Architectural wood flush doors.

3.3 INSTALLATION:

- A. Install each hardware item per manufacturer's instructions and recommendations. Do not install surface mounted items until finishes have been completed on the substrate. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- B. Conform to local governing agency security ordinance.
- C. Install Conforming to ICC/ANSI A117.1 Accessible and Usable Building and Facilities.
 - 1. Adjust door closer sweep periods so that from the open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the landing side of the door.
- D. Installed hardware using the manufacturers fasteners provided. Drill and tap all screw holes located in metallic materials. Do not use "Riv-Nuts" or similar products.

3.4 FIELD QUALITY CONTROL AND FINAL ADJUSTMENT

- A. Contractor/Installers, Field Services: After installation is complete, contractor shall inspect the completed door openings on site to verify installation of hardware is complete and properly adjusted, in accordance with both the Contract Documents and final shop drawings.
 - 1. Check and adjust closers to ensure proper operation.

- 2. Check latchset, lockset, and exit devices are properly installed and adjusted to ensure proper operation.
 - a. Verify levers are free from binding.
 - b. Ensure latchbolts and dead bolts are engaged into strike and hardware is functioning.
- 3. Report findings, in writing, to architect indicating that all hardware is installed and functioning properly. Include recommendations outlining corrective actions for improperly functioning hardware if required.
- 3.5 SCHEDULE OF FINISH HARDWARE:

Manufacturer List

<u>Code</u>	<u>Name</u>
AB	ABH Manufacturing Inc.
BE	Best Access Systems
BEAI	BEA Inc
BEST	BEST
DM	Dorma Door Controls
HID_	HID Global Corporation
JOHN	Johnson Hardware
NA	National Guard
PR	Precision
SD	Stanley Door Closers
ST	Stanley
TR	Trimco

Option List

<u>Code</u>	Description
N	Thru-Bolt w/ Flow-Thru
LD	Less Dogging
S3	ANSI Strike Package
SW	Standard Width Cover
3RO	Prefix option for 2000 Apex Series
CSK	COUNTER SINKING OF KICK and MOP PLATES
RQE	REQUEST TO EXIT
VIB	Double Visual Indictor Option
S988	STANDARD. STRIKE - NARROW STILE RIM
CA-03	Cylinder Attachment Kit (Rim/SVR Device)
NCA-03	Cylinder Attachment Kit (24/2500 Devices)
P45-180	Drop Plate
EPT Prep	EPT Prep (full mortise)

P45-180D	Drop Plate for Narrow Top Rail
P45HD-110	Spacer Block HD Arm on Rabbet
P45HD-112	Angle Brkt Shoe Support HD Arms
B4E-HEAVY-KP	BEVELED 4 EDGES - KICK PLATES
10-24 SSMS/LA	STAINLESS MACHINE SCREWS/LEAD ANCHOR
CORMAX PATENTED KEYING	Cormax Patented Keying

Finish List

<u>Code</u>	Description
AL	Aluminum
626	Satin Chromium Plated
630	Satin Stainless Steel
689	Aluminum Painted
GREY	Grey
BLACK	Black
US26D	Chromium Plated, Dull
US32D	Stainless Steel, Dull

Hardware Sets

SET #01

Doors: 101A, 101B, 101C, 101D

1 Continuous Hinge	661HD UL x LAR	AL	ST
1 Exit Device	3RO 2103 CA-03 S988	630	PR
1 Rim Cylinder	12E-72 PATD CORMAX PATENTED KEYING	626	BE
1 Door Pull	1191-4 N	630	TR
1 Door Closer	CLD-4551 CS P45-180D P45HD-110 P45HD-112	689	SD
1 Door Sweep	C699A x LAR		NA
1 Saddle Threshold	425 x LAR x 10-24 SSMS/LA	AL	NA

NOTE: Frame perimeter weatherstrip to be furnished by the Frame Manufacturer. Provide removable mullion at pair of opposing entry doors as indicated on frame types.

SET #02

Doors: 113, 114, 115A, 115B

2 Continuous Hinge	661HD UL x LAR	AL	ST
1 Exit Device	3RO 2603 NCA-03	630	PR

1 Exit Device	3RO 2601	630	PR
1 Rim Cylinder	12E-72 PATD CORMAX PATENTED KEYING	626	BE
1 Door Pull	1191-4 N	630	TR
	NOTE: Install on the primary leaf only.		
2 Door Closer	CLD-4551 CS P45-180D P45HD-110 P45HD-112	689	SD
2 Door Sweep	C699A x LAR		NA
1 Saddle Threshold	425 x LAR x 10-24 SSMS/LA	AL	NA

NOTE: Frame and door meeting stile weatherstrip to be furnished by the Door and Frame Manufacturer.

SET #03

Doors: 117E

1 Continuous Hinge	661HD UL EPT Cut to length as req.	AL	ST
1 Exit Device	3RO C MLR 2103 CA-03 S988 x door thickness as	630	PR
	req.		
1 Rim Cylinder	12E-72 PATD CORMAX PATENTED KEYING	626	BE
1 Anti-Vandal Pull	1097PHI-21S-CS4 x door thickness as req.	630	TR
1 Door Closer	CLD-4551 EDA AVB P45-180D P45HD-110	689	SD
	P45HD-112		
1 Overhead Stop	102X SL x size and door thickness as required	US32D	AB
1 Wire Harness	WH-XX x coordinate with door for LAR		ST
1 Power Transfer	EPT-12C		PR
1 Power Supply	RPSMLR2		PR
1 Wire Harness	WH-192P		ST
1 Door Position Switch	MC7		DM
1 Door Sweep	C699A x LAR		NA
1 Saddle Threshold	425 x LAR x 10-24 SSMS/LA	AL	NA

NOTE: Perimeter frame weatherstrip to be furnished by the frame manufacturer. Card reader, controller, head-end, software and infrastructure to be provided by the access control supplier. Presentation of a valid card retracts the exit device latch so the door can be pulled open. The door position switch monitors the door for door prop.

SET #04

Doors: 117A, 117B, 117C, 117D

1	Continuous Hinge	661HD UL Cut to length as required	AL	ST
1	Exit Device	Reuse existing exit device salvaged from demolit	ion.	
1	Door Closer	CLD-4551 EDA AVB P45-180D P45HD-110	689	SD
		P45HD-112		
1	Overhead Stop	102X SL x size and door thickness as required	US32D	AB
1	Security Contact Switch	Reuse existing door contact salvaged from demo	lition.	
1	Door Sweep	C699A x LAR		NA
1	Saddle Threshold	425 x LAR x 10-24 SSMS/LA	AL	NA

NOTE: Perimeter frame weatherstrip to be furnished by the frame manufacturer.

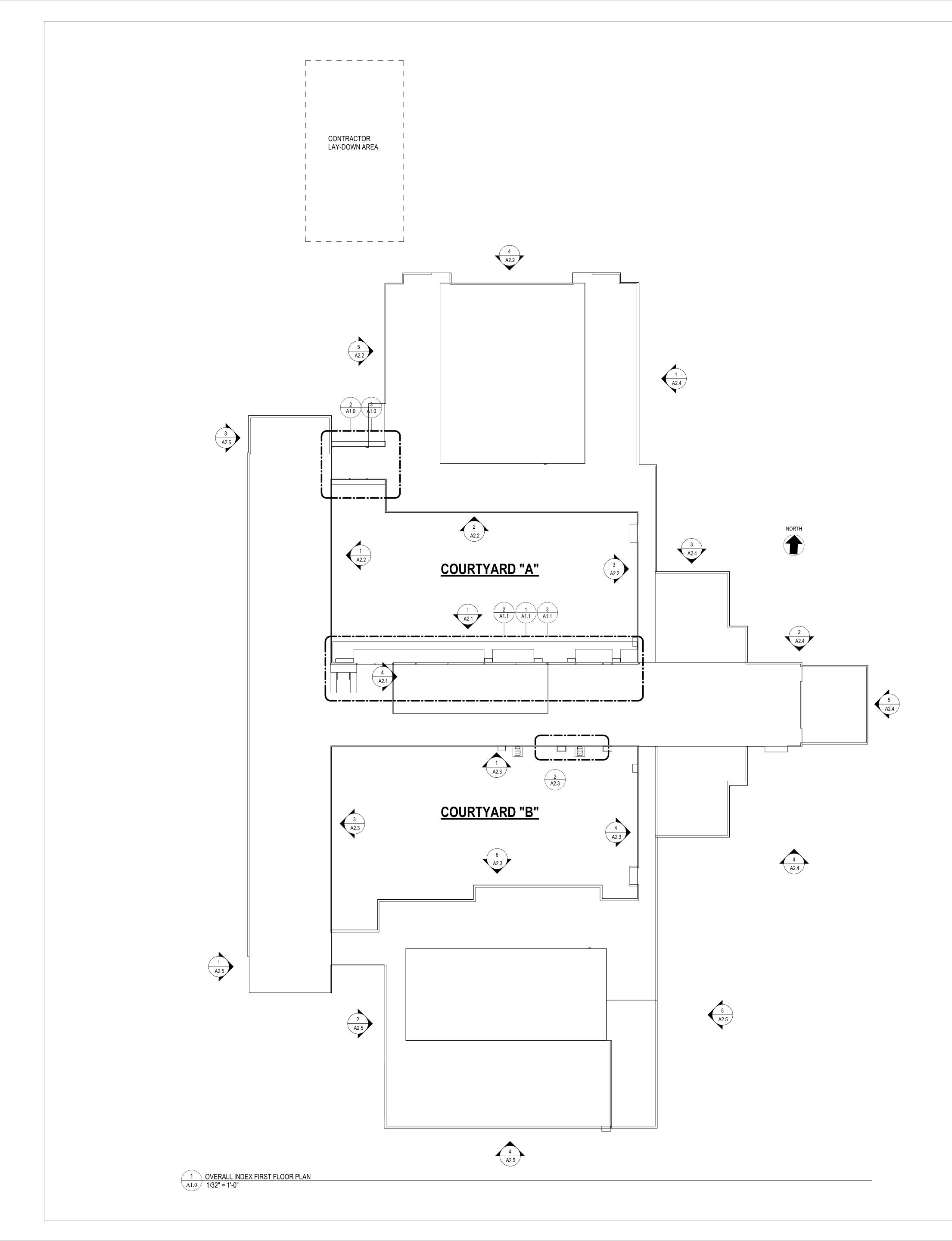
SET #05

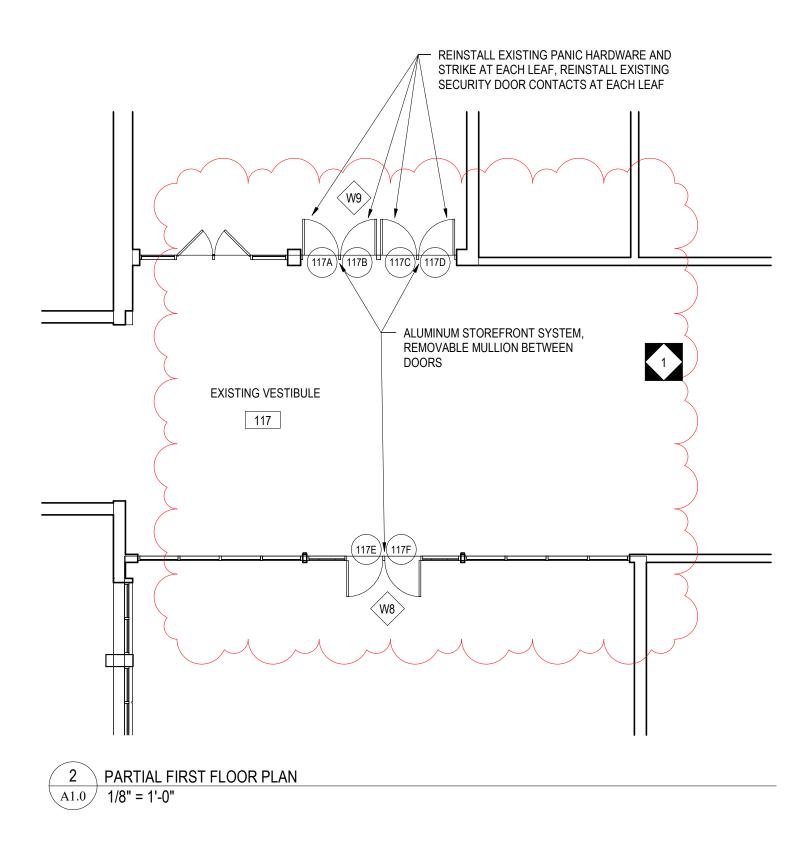
Doors: 117F

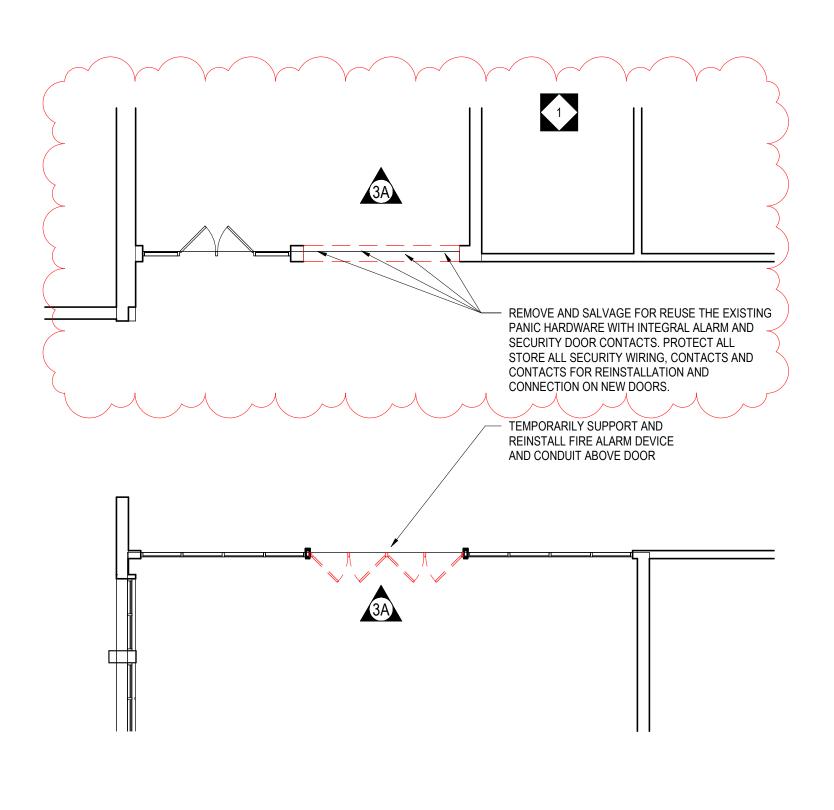
1 Continuous Hinge 1 Exit Device	661HD UL EPT Cut to length as req. 3RO 2101 CD S988 x door thickness as	AL 630	ST PR
	req.	626	
1 Rim Cylinder	12E-72 PATD CORMAX PATENTED KEYING	626	BE
1 Anti-Vandal Pull	1097PHI-21S-CS4 x door thickness as req.	630	TR
1 Door Closer	CLD-4551 EDA AVB P45-180D P45HD-110 P45HD-112	689	SD
1 Overhead Stop	102X SL x size and door thickness as required	US32D	AB
1 Wire Harness	WH-XX x coordinate with door for LAR		ST
1 Door Sweep	C699A x LAR		NA
1 Saddle Threshold	425 x LAR x 10-24 SSMS/LA	AL	NA

NOTE: Perimeter frame weatherstrip to be furnished by the frame manufacturer.

END OF SECTION 087100 DOOR HARDWARE

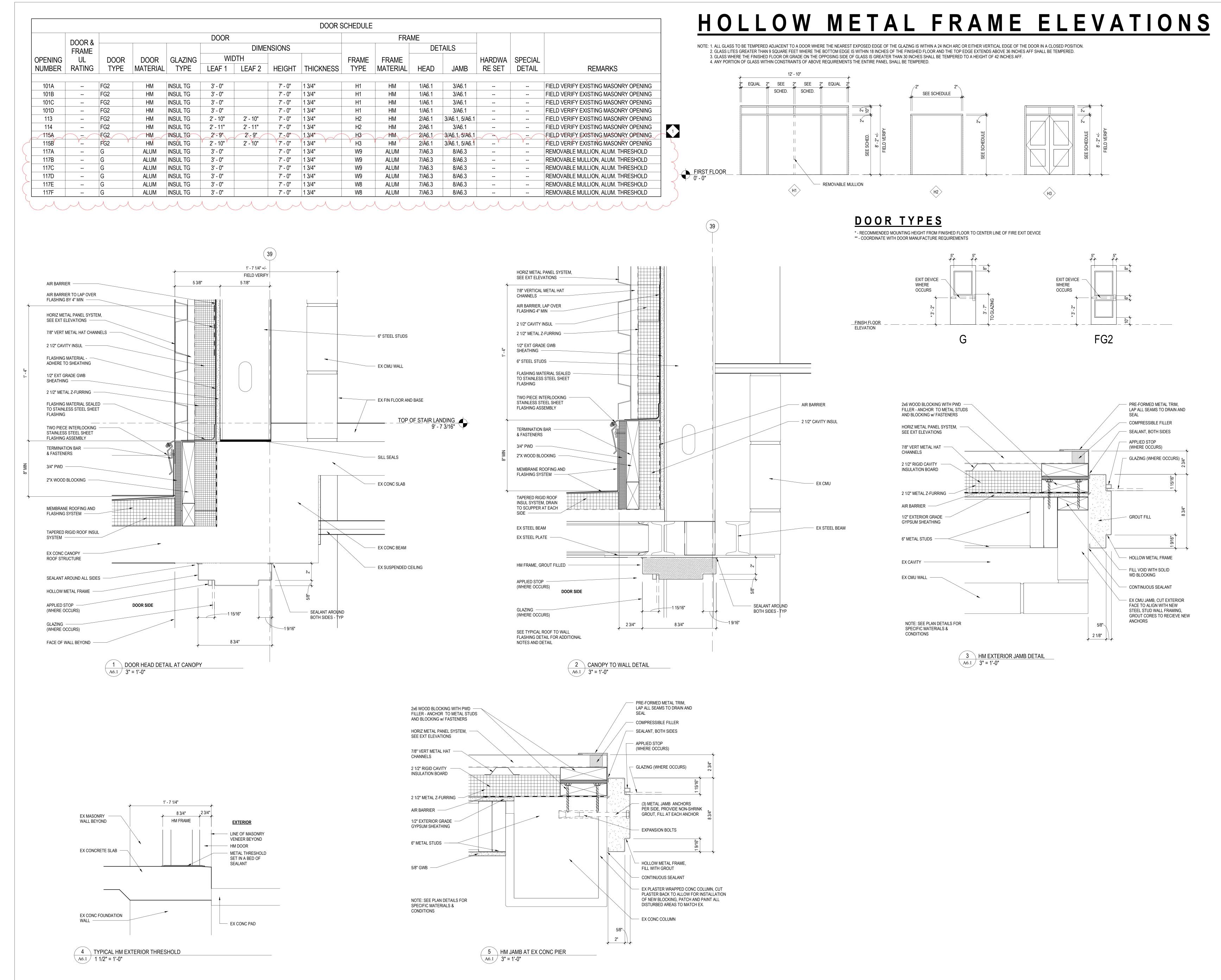




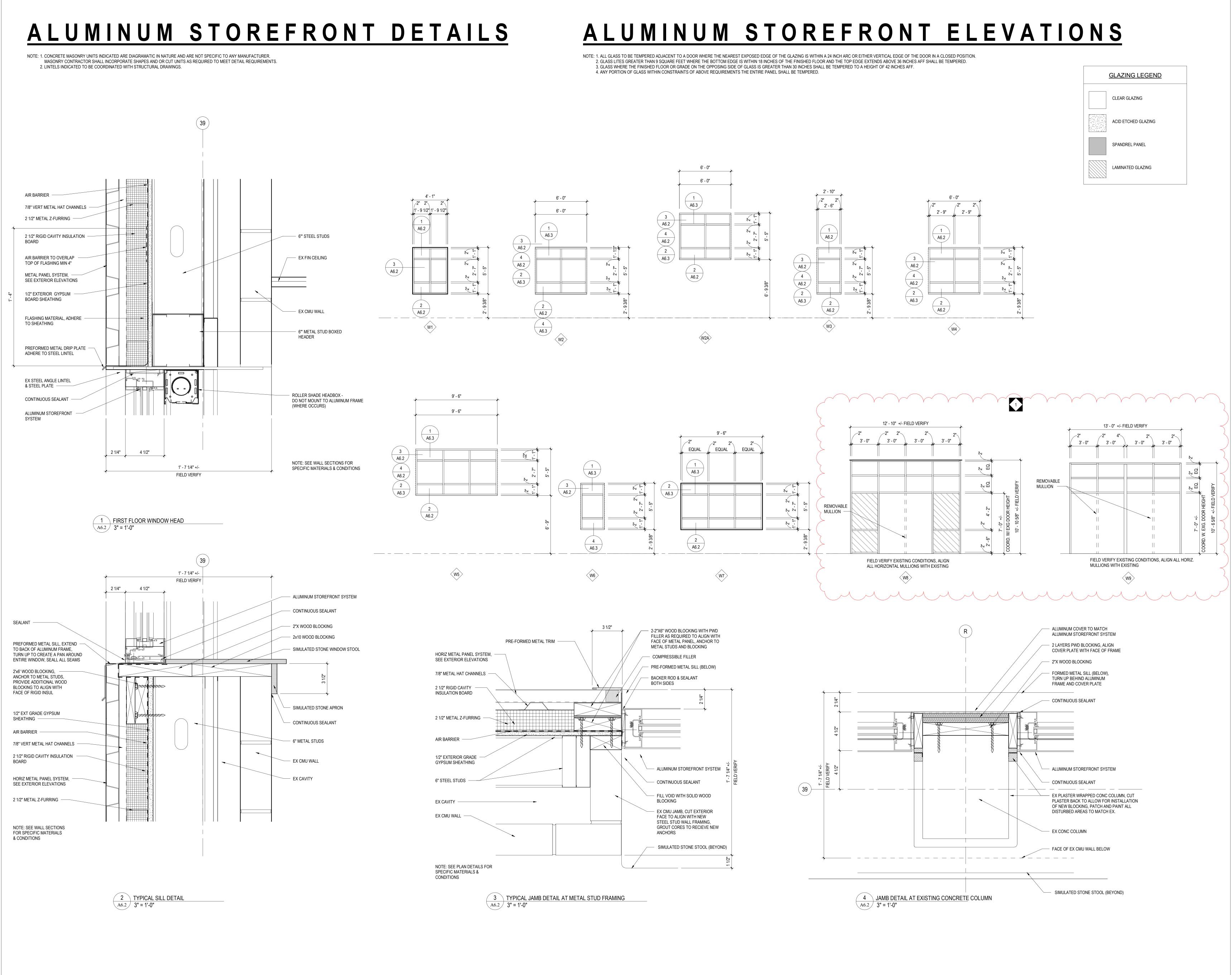


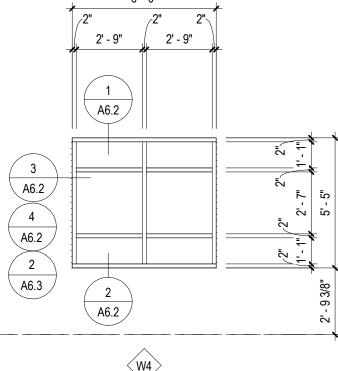


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CRABTREE ROHRBAUGH 250 WEST MAIN STREET, SUITE 200 M CHARLOTTESVILLE VA 22902 TO 434-975-7262 W	VDOE PROJECT #123- JOHN MARSHAL RICHMONI 4225 OLD BROOK
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PROJECT 3638