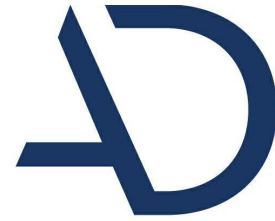


# ADDENDUM NUMBER 1

Date:

04/08/2026



**ARNOLD**  
DESIGN STUDIO

Project:

Project Location:

**Harrisonburg, Virginia**

Commission No:

**Lineweaver Annex Renovation**

**2119**

**Glen's Fair Price Building – Adaptive Reuse**

**2504**

**JR Polly – Renovation**

**2505**

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This Addendum, in its entirety shall become part of the record set of construction documents (project description, specifications, and/or drawings). All items are indicated by the corresponding portion of the construction documents. Please provide a copy of this addendum to all pertinent contractors to which the items apply. Any questions or clarifications regarding these items shall be directed to the Architect.

The following items shall be included within this Addendum.

## BIDDER QUESTIONS

1. Due to the lack of Civil plans at this time. Can the bid date be extended 1 week from its current date?  
**AE Response - Bid date is revised from April 17, 2026, to April 24, 2026, at 2:00pm at the offices of Harrisonburg Redevelopment and Housing Authority located at 286 Kelley Street.**
2. Please provide the building's current replacement value so we can obtain the cost for Builder's Risk Insurance as required by project specifications.  
**AE Response - The current replacement price of Lineweaver Annex Renovation is \$7,730,734.00.**  
**AE Response - The purchase price of Glen's Fair Price Building is \$1,100,000.00.**  
**AE Response - The current replacement price of JR Polly is \$8,046,275.00.**
3. Please provide the Retainage % if required by the contract documents  
**AE Response - Retainage Limit – In any construction contract which provides for progress payments in installments based upon an estimated percentage of completion, the contractor shall be paid at least 95 percent of the earned sum when payment is due, with no more than five percent being retained to assure faithful performance of the contract. All amounts withheld may be included in the final payment.**

4. Should we assume that the materials specified in the plans and specifications meet the BABA requirements and that if they do not a change order to make material changes would be issued by owner?

**AE Response - The Contractor is to price the materials and products specified in the Plans and Specifications.**

5. Please provide staging areas available to the General Contractor and its subs on the civil plans.

**AE Response - See attached site plan sketch for Contractor construction staging areas.**

6. At the Prebid meeting, it was stated that the tenants occupying the Lineweaver Apartments would need to be relocated into the completed Glenn Fair Price apartments. This will delay the start of the Lineweaver renovation for approximately 8 months, also delaying the subcontractors and vendors from ordering materials. Is it acceptable for subcontractors and vendors to order materials once an approved submittal has been completed. The sub / vendor will then store these materials in their warehouse with an insurance policy to cover theft and damage and bill it as stored materials to ensure market conditions do not affect their upfront pricing.

**AE Response - It is acceptable for the Contractor and Subcontractors to order/purchase materials once an approved submittal has been completed. Materials will need to be stored in a bonded and insured warehouse.**

7. Is it the owner's responsibility to work with the JR Poly tenants to move their furniture to allow enough access to the units for the scope of work required at JR Poly including providing space elsewhere for tenants to occupy during working hours?

**AE Response - It is the General Contractors responsibility to move tenant belongings to facilitate the renovation work.**

8. Is the wood blocking @ the coping shown on details 1, 2, & 3 on A502 existing or new construction?

**AE Response – The coping Details shown for the Lineweaver Project include new 2x pressure treated, fire retardant blocking.**

9. 58 Foundations is noted on the plans as the company responsible for the delegated design for waterproofing and sump pump at Glenn's Fair Price. Can you provide the 58 Foundations point of contact so we can reach out to them for design and pricing?

**AE Response - 58 Foundations Representative: Fred Mcghee, [fmcghee@58foundations.com](mailto:fmcghee@58foundations.com), C 804-641-3908, O 888-698-1958.**

10. The Basis of Design for the Lineweaver Annex Renovation 074246 High Density Cementitious Wall Panels is Cladding Corp. Swisspearl Fiber Cement Panel which is manufactured in Switzerland and the raw materials originate from Switzerland. This does not meet BABA requirements. Please advise if this product should be used for this project or provide an alternative to it.

**AE Response - The Contractor is to price the materials and products specified in the Plans and Specifications.**

11. The Basis of Design for the Lineweaver Annex Renovation 072726 Fluid Applied Membrane Air Barrier is Henry Company - Air bloc All Weather STPE Fluid Applied

Vapor Permeable Air Barrier which is manufactured in Canada and does not meet BABA. Henry Company does manufacture another product similar in capabilities called Air-Bloc 17MR Liquid-Applied Vapor Permeable AVB. Attached is product data for both. Is the Air-Bloc 17mr an acceptable substitution? Apparently the 17MR is cheaper.

**AE Response – the proposed Air-Bloc 17mr is not an acceptable alternative as it does not meet the UV requirements.**

12. We have not found many specified products that meet BABA compliance requirements. With this being a hard bid project that bids in 2 weeks there is not enough time to bid a project that the specs clearly have not been reviewed for BABA compliance. Is it acceptable to bid the plans and specs even if BABA compliance for most materials is not met? In some instances, exceptions would be accepted by the governing authority so it may not even be required to change such specification. This should be handled by the awarded contractor after the bid results have been certified.

**AE Response - The Contractor is to price the materials and products specified in the Plans and Specifications.**

13. There is an alternate listed on the Pre-Bid meeting minutes "One alternate – remove and replace all existing tub for step-in shower units for Lineweaver Annex" Will an updated bid form be provided?

**AE Response – Lineweaver Project – See Specification Section 004323, Section 1.4 Schedule of Alternates for form to complete for step-in shower unit replacement.**

14. Davis Bacon Wage sheet seems incomplete with certain trades. Can the following trades be added? Demo, Concrete, Steel erector, Welder, Roofer, Drywall, Paint, Flooring, HVAC mechanical, & Electrician. If these trades cannot be determined which rates should we include them under?

**AE Response – See attached revise wage determination va 164.**

## **SPECIFICATIONS - LINEWEAVER ANNEX RENOVATION**

1. Add revised Door Hardware Schedule to Specification Section 087100 Door Hardware.

## **SPECIFICATIONS – GLEN'S FAIR PRICE BUILDING**

1. Add revised Door Hardware Schedule to Specification Section 087100 Door Hardware.
2. Add the following Specification Section, 004322 UNIT PRICES FORM to include adding unit price for removal of asbestos containing floor tile and mastic material.

## **SPECIFICATIONS – JR POLLY RENOVATIONS**

1. Add revised Door Hardware Schedule to Specification Section 087100 Door

Hardware.

## **CIVIL DRAWINGS**

1. No items.

## **ARCHITECTURAL DRAWINGS**

1. No items

## **PLUMBING DRAWINGS**

1. No items.

## **MECHANICAL DRAWINGS**

1. No items.

## **ELECTRICAL DRAWINGS**

1. No items.

## **END OF ADDENDUM**



## **PART 1 – GENERAL**

### **1.01 SUMMARY**

- A. Section includes hardware for doors specified in “Hardware Sets”.
- B. Related Divisions:
  - 1. Division 03 Concrete
  - 2. Division 06 Rough & Finish Carpentry
  - 3. Division 07 Joint Sealants
  - 4. Division 08 Openings
  - 5. Division 09 Finishes
  - 6. Division 10 Specialties
  - 7. Division 13 Special Construction

### **1.02 REFERENCES**

- A. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI):
  - 1. ANSI/BHMA A156.1 Butts & Hinges (2016)
  - 2. ANSI/BHMA A156.2 Bored & Preassembled Locks & Latches (2017)
  - 3. ANSI/BHMA A156.3 Exit Devices (2020)
  - 4. ANSI/BHMA A156.4 Door Controls – Closers (2019)
  - 5. ANSI/BHMA A156.5 Cylinders and Input Devices for Locks (2020)
  - 6. ANSI/BHMA A156.6 Architectural Door Trim (2015)
  - 7. ANSI/BHMA A156.8 Door Controls – Overhead Stops and Holders (2015)
  - 8. ANSI/BHMA A156.12 Interconnected Locks & Latches (2018)
  - 9. ANSI/BHMA A156.13 Mortise Locks & Latches (2017)
  - 10. ANSI/BHMA A156.14 Sliding & Folding Door Hardware (2019)
  - 11. ANSI/BHMA A156.15 Closer Holder Release Devices (2015)
  - 12. ANSI/BHMA A156.16 Auxiliary Hardware (2018)
  - 13. ANSI/BHMA A156.17 Self-Closing Hinges & Pivots (2019)
  - 14. ANSI/BHMA A156.18 Materials & Finishes (2020)
  - 15. ANSI/BHMA A156.21 Thresholds (2019)
  - 16. ANSI/BHMA A156.22 Door Gasketing Systems (2017)
  - 17. ANSI/BHMA A156.26 Continuous Hinges (2017)
  - 18. ANSI/BHMA A156.28 Keying Systems (2018)
  - 19. ANSI/BHMA A156.36 Auxiliary Locks (2020)
  - 20. ANSI/BHMA A156.39 Residential Locksets and Latches (2020)
- B. International Code Council/American National Standards Institute (ICC/ANSI)/ADA:
  - 1. ICC/ANSI A117.1 Standards for Accessible and Usable Buildings and Facilities.
- C. Door and Hardware Institute (DHI):
  - 1. DHI Publication – Abbreviations and Symbols (2019).
  - 2. DHI Publication – Installation Guide for Doors and Hardware (2020).
  - 3. DHI Publication – Sequence and Format of Hardware Schedule (2019).
- D. National Fire Protection Agency (NFPA):
  - 1. NFPA 70 National Electrical Code.
  - 2. NFPA 80 Standard for Fire Doors and Other Opening Protectives.
  - 3. NFPA 105 Standard for the Installation of Smoke Door Assemblies.

### **1.03 SUBMITTALS**

- A. Submit in accordance with Conditions of the Contract and Division 01 Administrative Requirements and Submittal Procedures Section.
- B. Shop Drawings:
  - 1. Schedule hardware in vertical format using the DHI publication Sequence and Formatting for the Hardware Schedule.
  - 2. Include abbreviations and symbols page to include manufacturers’ abbreviations, finish code descriptions, and fastener abbreviations including descriptions according to the DHI publication Abbreviations and Symbols.

3. Detail headings referencing the Architect's heading, opening number, locations, fire rating, handing, degree of opening, and description of the opening elements. Include Voltage, amperage, and operational descriptions for openings that have electrified hardware.
  4. Coordinate final door hardware schedule with doors, frames, and related work listing proper sizing of hardware, addressing door thickness, handing, function, mounting accessories, and finish of hardware.
  5. List related door devices specified in other Sections for each opening.
  6. Architectural Hardware Consultant (AHC), as certified by DHI, who will affix seal attesting to completeness and correctness, including the review of the hardware schedule prior to submittal.
- C. Product Data:
1. Furnish manufacturers' catalog sheets on design, grade, and function of items listed in hardware schedule. Submit only relevant information and circle or highlight the technical information including: model numbers, sizing information, voltage and amperage requirements, options and accessories required, means of fastening, listings of fire-rated applications, and finishes.
- E. Templates:
1. Within fourteen days of receiving approved door hardware submittals submit complete list of templates for each hardware item to the opening manufacturers and the installers. Include detailed lists of the hardware location requirements for mortised and surface applied hardware.
- F. Closeout Submittals: Include the following information as well as highlight and flag fire rated openings for annual inspections:
1. Cover page with required information:
    - a. Project name
    - b. Hardware supplier's name and contact information.
    - c. Date of substantial completion.
  2. Final record hardware schedule.
  3. Product Data.
  4. Keying Schedule.
  5. Operating and Maintenance Manual.
  6. Warranty Information.

#### **1.04 QUALITY ASSURANCE**

- A. Hardware supplier shall employ an Architectural Hardware Consultant (AHC) as certified by DHI and a member of the seal program who will be available at reasonable times during course of work for Project hardware consultation.
- B. Where openings are required to be accessible door hardware shall conform to ICC/ANSI A117.1.
- C. Fire Rated Door Assemblies: Where fire-rated door assemblies are indicated, provide door hardware complying with NFPA 80 that are listed and/or labeled by a qualified testing agency for fire-protection ratings indicated.
- D. Smoke and Draft Control Door Assemblies: Where smoke and draft control doors are required, provide door hardware that meets requirements of assemblies in compliance with NFPA 105.
- E. Door hardware certified to ANSI/BHMA standards as noted, manufacturer must participate and be listed in BHMA Certified Products Directory.
- F. Substitution requests shall be submitted in compliance with Division 01: create a comparison chart that includes the testing information as well as the warranty for both the specified product and the proposed substitution. Include the reason for requesting the substitution, clear catalog copy highlighting the proposed product and options, compliance statement, technical data, product warranty and lead time, to show how the proposed can meet or exceed established level of design, function, and quality.
- G. Meetings: Comply with requirements in Division 01 Section "Project Meetings."
  1. Keying Meeting
    - a. Within fourteen days of receiving approved door hardware submittals, contact Owner to establish a keying conference. Include keying meeting decisions into final keying schedule submittal after reviewing the following, but not limited to:
      - i. Function of the building, flow of traffic, individual area's purpose, and degree of security.
      - ii. Lock functions and operation.
      - iii. Preliminary key system schematic diagram.

- iv. Verify existing keyway(s), and/or proposed keyway(s)
- v. Visual key and cylinder identification
- vi. Quantity of keys required including master level keys, change keys, and keys per lock.
- vii. Review the key control system.
- viii. Determine the recipient and contact information for the delivery of keys and accessories.

H. Installer Qualifications: Specialized in performing installation of this Section and have five years minimum documented experience.

## **1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Pack each item complete with necessary parts and fasteners in manufacturer's original packaging.
- B. Mark hardware that is not bulk packed with architect's opening number, hardware set number, and item number for each type of hardware. Include keyset symbols and corresponding hardware component for keyed products. Mark hardware that is bulk packed with manufacturers' part number and reference all hardware sets associated.
- C. Deliver hardware to the job site according to the phasing agreed upon in the pre-installation meeting. Inventory the delivery with the supplier's assistance. Immediately note shortages and damages on the shipping receipts and bill of lading. Coordinate replacement or repair with the supplier.
- D. Deliver permanent keys, cores, and related accessories directly to Owner via registered mail or overnight package service. Establish the instructions for delivery to Owner at "Keying Conference."
- E. Provide a clean, dry, and secure room for hardware delivered. Shelf hardware off the floor and with larger items of hardware stored on pallets. Arrange locksets and keyed cylinders by opening number. Organize the balance of hardware by brand, model of hardware, and hardware set number. Leave the door markings of the hardware visible for installers.
- F. Waste Management and Disposal: Separate waste materials for use or recycling in accordance with Division 01.

## **1.06 WARRANTY**

- A. General Warranty: Comply Division 01 for Warranty requirements.
- B. Special Warranty: Warranties specified in this article will not deprive Owner of other rights.
  1. Ten years for manual door closers.
  2. One year for locks.
  3. Five years for exit devices.

## **1.07 MAINTENANCE**

- A. Maintenance Tool and Instructions: Furnish a complete set of specialized tools and maintenance instructions for Owner's continued adjustment, maintenance, removal, and replacement of door hardware.

## **PART 2 – PRODUCTS**

### **2.01 MATERIALS**

- A. General:
  1. Produce hardware units of basic metal and forming method using manufacturer's standard metal alloy, composition, temper, and hardness, but in no case of lesser (commercially recognized) quality than specified within this specification section for applicable hardware units for finish designations indicated.
- B. Fasteners:
  1. Furnish screws for installation with each hardware item. Use only fasteners that are furnished by the hardware manufacturer to meet the manufacturer's templating requirements, warranty and NFPA 80 requirements.
  2. Provide Phillips flat-head screws except as otherwise indicated.
  3. Finish exposed screws to match hardware finish or, if exposed in surfaces of other work, to match finish of this other work as closely as possible including "prepared for paint" surfaces to receive painted finish.
  4. Use machine screws with lead expansion shields at hardware mounting to masonry walls and floors.
  5. Wood screw with plastic anchors at drywall applications without reinforcement and wood screws at applications with reinforcements.

6. Provide concealed fasteners for hardware units that are exposed when door is closed except to the extent no standard units of type specified are available with concealed fasteners.
  - a. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless their use is the only means of reinforcing the work adequately to fasten the hardware securely.
  - b. Where thru-bolts are used as a means of reinforcing the work, provide sleeves for each thru-bolt or use sex nut fasteners.
7. At exterior openings furnish stainless-steel fasteners for exposed fasteners, for example thresholds and screw-applied weatherstripping.

## 2.02 CONVENTIONAL HINGES

- A. Hinges, electric hinges, and self-closing hinges of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Products to be certified and listed by the following:
  1. Butts and Hinges: ANSI/BHMA A156.1.
  2. Template Hinge Dimensions: ANSI/BHMA A156.7.
  3. Self-Closing Hinges: ANSI/BHMA A156.17.
- C. Butt Hinges:
  1. Hinge weight and size unless otherwise indicated in hardware sets:
    - a. Doors up to 36" wide and up to 1-3/4" thick provide hinges with a minimum thickness of .134" and a minimum of 4-1/2" in height.
    - b. Doors over 36" wide up to 48" wide and up to 1-3/4" thick provide hinges with a minimum thickness of .145" and a minimum of 5" in height.
    - c. Doors greater than 1-3/4" thick provide hinges with a minimum thickness of .190" and a minimum of 5" in height.
    - d. Width of hinge is to be minimum required to clear surrounding trim.
    - e. Doors considered to be low to medium frequency use would require standard weight hinges and medium to high frequency use would require heavy weight hinges.
  2. Base material unless otherwise indicated in hardware sets:
    - a. Exterior Doors: 304 Stainless Steel, Brass or Bronze material.
    - b. Interior Doors: Steel material.
    - c. Fire Rated Doors: Steel or 304 Stainless Steel materials.
    - d. Stainless Steel ball bearing hinges to have stainless steel ball bearings. Steel ball bearings are unacceptable.
  3. Quantity of hinges per door unless otherwise stated in hardware sets:
    - a. Doors up to 60" in height provide 2 hinges.
    - b. Doors 60" up to 90" in height provide 3 hinges.
    - c. Doors 90" up to 120" in height provide 4 hinges.
    - d. Doors over 120" in height add 1 additional hinge per each additional 30" in height or fraction thereof.
    - e. Dutch doors provide 4 hinges up to 120" in height and 1 additional per each additional 30" in height or fraction thereof.
  4. Hinge design and options unless otherwise indicated in hardware sets:
    - a. Hinges are to be of a square corner five-knuckle design, flat button tips and have ball bearings unless otherwise indicated in hardware sets.
    - b. Out-swinging lockable and access-controlled doors are required to have Non-Removable Pins (NRP) to prevent removal of pin while door is in closed position.
    - c. When full width of opening is required, use hinges that are designed to swing door completely from opening when door is opened to 95 degrees.
- D. Acceptable Manufacturers:
  1. Hager
  2. Stanley
  3. McKinney

## 2.03 ALUMINUM GEARED CONTINUOUS HINGES

- A. Continuous hinges of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Products to be certified and listed by ANSI/BHMA A156.26 Grade 1.
- C. Determine final model numbers and accessories required using the following criteria:

1. Door inset in relation to the frame face.
2. Door thickness and weight.
3. At fire rated openings provide hinges that carry a UL certification, up to and including 90-minute applications for wood doors and up to 3-hour applications for metal doors and provide studs as required by the manufacturer's listings.
4. Provide heavy-duty hinges for high frequency and exterior applications.
5. When full width of opening is required, use hinges that are designed to swing door completely from opening when door is opened to 95 degrees.
6. Size length of hinge to equal the actual door height unless otherwise stated in hardware sets.

D. Material and Design:

1. Base material: Anodized aluminum manufactured from 6063-T6 material; unexposed working metal surfaces be coated with TFE dry lubricant.
2. Bearings:
  - a. Continuous hinges are to have a minimum spacing between bearings of 2-9/16". Typical door from 80" to 84" in height to have a minimum of 32 bearings.

E. Acceptable Manufacturers:

1. Hager
2. Stanley
3. Select

**2.04 FLUSH BOLTS AND COORDINATORS**

- A. Flush bolts of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer to be listed by the following: Auxiliary Hardware: ANSI/BHMI A156.16.
- C. Labeled openings: Provide automatic or constant latching flush bolts per hardware schedule for inactive leaf of pairs of doors. Provide dust proof strikes for bottom bolt.
- D. Non-Labeled openings: Provide two flush bolts for inactive leaf of pairs of doors per hardware schedule. Provide extension rods so that the center line of the top flush bolt is not more than 78" above the finish floor. Provide dust proof strike from bottom bolt.
- E. Acceptable Manufacturers:

	Manual Flush Bolt	Auto Flush Bolt	Dust Proof Strike
Hager	283D	292D/295W/296W	280X
Rockwood	557	1942	570
Trimco	3917	3815	3911

**2.05 STANDARD DUTY CYLINDRICAL LOCKS AND LATCHES (GRADE 2 CYLINDRICAL)**

- A. Locks and latches of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Product to be certified and listed by following:
  1. ANSI/BHMA A156.2 Series 4000 Certified to Grade 2.
  2. UL/c UL Labeled and listed for functions up to 3 hours for single doors up to 48" in width and up to 96" in height.
  3. UL10C/UBC 7-2 Positive Pressure Rated.
- C. Lock and latch function numbers and descriptions of manufacturer's series as listed in hardware sets.
- D. Material and Design:
  1. Lock and latch chassis to be zinc dichromate for corrosion resistance.

2. Keyed functions to be of a freewheeling design to help resist against vandalism.
3. Non-handed, field reversible.
4. Thru bolt mounting with no exposed screws.
5. Levers, zinc cast and plated to match finish designation in hardware sets.
6. Roses made of wrought brass or stainless-steel material.

E. Latch and Strike:

1. Stainless steel latch bolt with minimum of 1/2” throw and deadlocking for keyed and exterior functions. Provide 3/4” latch bolt for pairs of fire-rated doors where required by door manufacturer. Standard backset to be 2-3/4” and adjustable faceplate to accommodate a square edge door or a standard 1/8” beveled edge door.
2. Strike is to fit a standard ANSI A115 prep measuring 1-1/4” x 4-7/8” with proper lip length to protect surrounding trim.

F. Options:

1. Doors requiring lead line protection – provide locks with 1/16” lead applied to lock and 1/16” lead wrapped around latch bolt.
2. Provide knurled levers on entry side of doors that are potentially dangerous to visually impaired persons.

G. Acceptable Manufacturers:

Hager	2500 Series
Schlage	AL Series
Best	7K Series

**2.06 LIGHT DUTY TUBULAR LOCKS AND LATCHES (GRADE 3 TUBULAR)**

A. Locks and latches of one manufacturer as listed for continuity of design and consideration of warranty.

B. Standards: Product to be certified and listed by following:

1. ANSI/BHMA A156.2 Series 4000 Certified to Grade 3.
2. ICC/ANSI A117.1.

C. Lock and latch function numbers and descriptions of manufacturer’s series as listed in hardware sets.

D. Material and Design:

1. Non-handed, field reversible.
2. Roses are to be of solid brass or stainless-steel material and have a minimum diameter of 2-9/16”.

E. Latch and Strike:

1. Latch bolt with minimum of 1/2” throw. Standard backset to be adjustable from 2-3/8” to 2-3/4” and adjustable faceplate to accommodate a square edge door or a standard 1/8” beveled edge door.
2. Strike options include a full lip strike (square or round corners) and a 1-1/8” x 2-3/4” tee strike.

F. Acceptable Manufacturers:

Hager	3300
Schlage	F Series
Approved equal	

**2.07 DEADBOLTS (GRADE 2)**

A. Deadbolts of one manufacturer as listed for continuity of design and consideration of warranty.

B. Standards: Manufacturer to be certified by the following:

1. Auxiliary Locks: ANSI/BHMA A156.5 Grade 1.
2. UL/eUL listed for functions up to 3 hours for “A” label.
3. UL10C/UBC 7-2 Positive Pressure Rated.

C. Deadbolt function numbers and descriptions of manufacturer’s series as listed in hardware sets.

D. Material and Design:

1. Latch bolt 1” throw, brass material with concealed hardened steel roller to prevent sawing or cutting.
2. Non-handed, field reversible.

E. Acceptable Manufacturers:

Hager	3200 Series
Best	8T Series
Sargent	470 Series

**2.08 EXIT DEVICES (GRADE 1)**

A. Exit Devices of one manufacturer as listed for continuity of design and consideration of warranty. Touchpad type finish to match balance of door hardware.

B. Standards: Manufacturer to be certified and/or listed by the following:

1. BHMA Certified ANSI A156.3 Grade 1.
2. UL/cUL Listed for up to 3 hours for “A” labeled doors.
3. UL10C/UBC 7-2 Positive Pressure Rated.
4. UL10B Neutral Pressure Rated.
5. UL 305 Listed for Panic Hardware.

C. Material and Design:

1. Provide exit devices with actuators that extend a minimum of one-half of door width.
2. Where trim is indicated in hardware sets provide the lever design to match design of lock levers.
3. Exit device to mount flush with door.
4. Latch bolts:
  - a. Rim device – 3/4” throw, Pullman type with automatic dead-latching, stainless steel
  - b. Surface vertical rod device – Top 1/2” throw, Pullman type with automatic dead-latching, stainless steel. Bottom 1/2” throw, Pullman type, held retracted during door swing, stainless steel.
5. Fasteners: Wood screws, machine screws, and thru bolts.

D. Lock and Latch Functions: Function numbers and descriptions of manufacturer’s series and lever styles indicated in door hardware sets.

E. Acceptable Manufactures:

Hager	4700 Series	4600 Series
Von Duprin	22 Series	33 Series
Dormakaba	QED100 Series	QED200 Series

**2.09 CYLINDERS AND KEYING**

A. Cylinders of one manufacturer as listed for continuity of design and consideration of warranty.

B. Products to be certified and listed by the following:

1. Auxiliary Locks: ANSI/BHMA A156.5

C. Cylinders:

1. Provide cylinders matched to the types required for hardware that has a locking function and for keyed electronic functions. Furnish with appropriate collars, cams, and tailpieces to fit and operate associated hardware. Stacking collars is not acceptable, a single collar of proper size is required.
2. Manufacturer’s standard tumbler type, seven-pin IC core and seven-pin conventional core supported by the Hager H series keyway.
3. Manufacturer’s standard tumbler type six-pin conventional cylinder.

D. Keying:

1. Provide a new factory registered key system.
2. Provide a bitting list to Owner of combinations as established and expand to twenty-five percent for future use or as directed by Owner.

3. Keys to be shipped directly to the Owner's Representative as established during the keying conference.
  - a. Package the keys in individual envelopes, grouped by keyset symbol, and label envelopes with project name, factory registry number, and keyset symbol.

E. Acceptable Manufacturers:

Hager
Schlage
Sargent

## 2.10 PUSH/PULL PLATES AND BARS

- A. Push/Pull plates and bars of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer to be certified by the following:
  1. Architectural Door Trim: ANSI/BHMA A156.6.
  2. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- C. Push plates: .050" thick, square corner and beveled edges with countersunk screw holes. Width and height as stated in hardware sets.

D. Acceptable Manufacturers:

Hager	30S
Rockwood	70C
Trimco	1001-3

- E. Pull Plates: .050" thick, square corner and beveled edges. Width and height as stated in hardware sets, 3/4" diameter pull, with clearance of 2-1/2" from face of door.

F. Acceptable Manufacturers:

Hager	33J
Rockwood	111-70C
Trimco	1017-3

## 2.11 CLOSERS (CAST IRON BODY GRADE 1)

- A. Closers of one manufacturer as listed for continuity of design and consideration of warranty, unless otherwise indicated on hardware schedule, comply with manufacturer's recommendations for size of closer, depending on width of door, frequency of use, atmospheric pressure, ADAAG requirement, and fire rating.
- B. Standards: Manufacturer to be certified and or listed by the following:
  1. BHMA Certified ANSI A156.4 Grade 1.
  2. ADA Complaint ANSI A117.1.
  3. UL/c UL Listed up to 3 hours.
  4. UL10C Positive Pressure Rated.
  5. UL10B Neutral Pressure Rated.
- C. Material and Design:
  1. Provide cast iron non-handed bodies with full plastic covers.
  2. Closers will have separated staked adjustable valve screws for latch speed, sweep speed, and backcheck.
  3. Provide Tri-Pack arms and brackets for regular arm, top jamb, and parallel arm mounting.
  4. One-piece seamless steel spring tube sealed in hydraulic fluid.
  5. Double heat-treated steel tempered springs.
  6. Precision-machined heat-treated steel piston.
  7. Triple heat-treated steel spindle.
  8. Full rack and pinion operation.

- D. Mounting:
  1. Out-swing doors use surface parallel arm mount closers except where noted on hardware schedule.
  2. In-swing doors use surface regular arm mount closers except where noted on hardware schedule.
  3. Provide brackets and shoe supports for aluminum doors and frames to mount fifth screw.
  4. Furnish drop plates where top rail conditions on door do not allow for mounting of closer and where backside of closer is exposed through glass.
- E. Size closers in compliance with requirements for accessibility (ADAAG). Comply with following maximum opening force requirements.
  1. Interior hinged openings: 5.0 lbs.
  2. Fire-rated and exterior openings use minimum opening force allowable by authority having jurisdiction.
- F. Fasteners: Provide self-reaming, self-tapping wood and machine screws, and sex nuts and bolts for each closer.
- G. Acceptable manufacturers:

Hager	5100 Series
LCN	4040XP Series
Sargent	281 Series

**2.12 CLOSERS (ALUMINUM BODY GRADE 1)**

- A. Closers of one manufacturer as listed for continuity of design and consideration of warranty. Unless otherwise indicated on hardware schedule, comply with manufacturer’s recommendations for size of closer, depending on width of door, frequency of use, atmospheric pressure, ADAAG requirements, and fire rating.
- B. Standards: Manufacturer to be certified by the following:
  1. BHMA Certified ANSI A156.4 Grade 1.
  2. ADA Complaint ANSI A117.1.
  3. UL/c UL Listed up to 3 hours.
  4. UL10C Positive Pressure Rated.
  5. UL10B Neutral Pressure Rated.
- C. Material and Design:
  1. Provide aluminum non-handed bodies with full plastic covers.
  2. Closers will have separate staked adjustable valve screws for latch speed, sweep speed, and backcheck.
  3. Provide Tri-Pack arms and brackets for regular arm, top jamb, and parallel arm mounting.
  4. Double heat-treated steel, tempered springs.
  5. Precision machined heat-treated steel piston.
  6. Triple heat-treated steel spindle.
  7. Full rack and pinion operation.
- D. Mounting:
  1. Out-swing doors surface parallel arm mount closers except where noted on hardware schedule.
  2. In-swing doors surface regular arm mount closers except where noted on hardware schedule.
  3. Provide brackets and shoe supports for aluminum doors and frames to mount fifth screw.
  4. Furnish drop plates where top rail conditions on door do not allow for mounting of closer and where backside of closer is exposed through glass.
- E. Size closers in compliance with requirements for accessibility (ADAAG). Comply with following maximum opening force requirements.
  1. Interior hinged openings: 5.0 lbs.
  2. Fire-rated and exterior openings are to be adjusted to have minimum opening force allowable by authority having jurisdiction.
- F. Fasteners: Provide self-reaming, self-tapping wood and machine screws, and sex nuts and bolts for each closer.
- G. Acceptable manufacturers:

Hager	5200 Series	5300 Series
Norton	8000 Series	1600 Series
Sargent	1330 Series	1130 Series

### 2.13 STOPS AND HOLDERS

- A. Stops and holders of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Wall Stops: Provide door stops wherever necessary to prevent door or hardware from striking an adjacent partition or obstruction. Provide wall stops when possible. Door stops and holders mounted in concrete floor or masonry walls have stainless steel machine screws and lead expansion shields.
- C. Products to be certified and listed by the following:
  - 1. Auxiliary Hardware: ANSI/BHMA A156.16.

D. Acceptable Manufacturers:

	Convex	Concave
Hager	232W	236W
Rockwood	406	409
Trimco	1270WV	1270CV

### 2.14 THRESHOLDS

- A. Thresholds of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Set thresholds for exterior and acoustical openings in full bed of sealant with lead expansion shields and stainless-steel machine screws complying with requirements specified in Division 07 Section "Joint Sealants: Notched in field to fit frame by hardware installer. Refer to Drawings for special details.
- C. Standards: Manufacturer to be certified by the following:
  - 1. Thresholds: ANSI/BHMA A156.21.
  - 2. American with Disabilities Act Accessibility Guidelines (ADAAG).

D. Acceptable Manufacturers:

Hager	413S/520S
NGP	513/896N
Pemko	271A/2005AV

### 2.15 DOOR GASKETING AND WEATHERSTRIP

- A. Door gasketing and weather strip of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Provide continuous weather strip gasketing on exterior doors and provide smoke, light, or sound gasketing where indicated on hardware schedule. Provide noncorrosive fasteners for exterior applications.
  - 1. Perimeter gasketing: Apply to head and jamb, forming seal between door and frame.
  - 2. Meeting stile gasketing: Fasten to meeting stiles, forming seal when doors are in closed position.
  - 3. Door bottoms: Apply to bottom of door, forming seal with threshold or floor when door is in closed position.
  - 4. Sound Gasketing: Cutting or notching for stop mounted hardware not permitted.
  - 5. Drip Guard: Apply to exterior face of frame header. Lip length to extend 4" beyond width of door.
- C. Products to be certified and listed by the following:
  - 1. Door Gasketing and Edge Seal Systems: ANSI/BHMA A156.22.
  - 2. BHMA certified for door sweeps, automatic door bottoms, and adhesive applied gasketing.
- D. Smoke-Labeled Gasketing: Comply with NFPA 105 listed, labeled, and acceptable to Authorities Having Jurisdiction, for smoke control indicated.
  - 1. Provide smoke-labeled gasketing on 20-minute rated doors and on smoke rated doors.
- E. Fire-Rated Gasketing: Comply with NFPA 80 listed, labeled, and acceptable to Authorities Having Jurisdiction, for fire ratings indicated.
- F. Refer to Section 08 1416 Wood Doors for Category A or Category B. Comply with UBC 7-2 and UL10C positive pressure where frame applied intumescent seals are required.

G. Acceptable Manufacturers:

1. Perimeter Gasketing:

	Stop Applied	Adhesive Applied
Hager	891S	726
NGP	135N	5050
Pemko	891S	S88BL

2. Door Bottom Sweeps:

Hager	802S
NGP	B606A
Pemko	18061CNB

**2.16 DOOR VIEWER**

A. Door viewer of one manufacturer as listed for continuity of design and consideration of warranty.

B. Products to be certified and listed by the following:

1. Auxiliary Hardware: ANSI/BHMA A156.16 for L033221.

C. Design:

1. Adjustable for use on doors 1-3/8” to 2-1/8” thick doors, 9/16” hole required.
2. One way 200-degree view.
3. Tamper resistant with a privacy flap.
4. 90 min. fire rating.

D. Acceptable Manufacturers:

Hager	334V
Rockwood	611 Series
Trimco	621 Series

**2.17 PRIVACY DOOR LATCH**

A. Privacy door latch of one manufacturer as listed for continuity of design and consideration of warranty.

B. Products to be certified and listed by the following:

1. UL Classification as Fire Door Accessory.
2. NFPA 80.
3. ICC/ANSI A117.1

C. Design:

1. Allows visitor identification, cannot be used to keep door ajar.
2. Does not allow door to be held open.

D. Acceptable Manufacturers:

Hager	277D
Pemko	PDL
Trimco	4017

**2.18 SILENCERS**

A. Where smoke, light, or weather seal are not required, provide three silencers per single door frame, two per double door frame and four per Dutch door frame.

B. Products to be certified and listed by the following:

1. Auxiliary Hardware: ANSI/BHMA A156.16

C. Acceptable Manufacturers:

	Hollow Metal Frame	Wood Frame
Hager	307D	308D
Rockwood	608	609
Trimco	1229A	1229B

**2.19 KEY CABINET**

- A. Provide key cabinet; surface mounted to wall.
- B. Key control system:
  1. Include two sets of key tags, hooks, labels, and envelopes.
  2. Contain system in metal cabinet with baked enamel finish.
  3. Capacity will be able to hold actual quantities of keys, plus 50 percent.
  4. Provide tools, instruction sheets, and accessories required to complete installation.

C. Acceptable Manufacturers:

Lund Equipment
Telkee
HPC

**2.20 FINISHES**

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

**PART 3 – EXECUTION**

**3.01 EXAMINATION**

- A. Examine doors and frames, with installers present, for compliance with requirements for installation tolerances, labeled fire-rated construction, wall and floor construction, and other conditions affecting performance.
- B. Where hardware will be installed directly on walls inspect applications for blocking material of sufficient type and size for hardware.
- C. Where existing products will be reused, examine existing door and frame sizes, preps, swings, ratings, and compare to the specified hardware for compatibility and functionality. The hardware set specified should act as guide for design and function. Provide filler plates as needed to fill and repair existing materials. Test any existing to remain hardware for functionality and visually inspect for damage. Note any defective or damaged products as well as noting any code deficiencies and submit issues and estimated costs for direction of how to proceed with repair or replacement.
- D. Notify Architect via a prepared written report and endorsed by installer of any discrepancies between the door schedule, door types, drawings, and scheduled hardware. List conditions detrimental to application, to the proper and timely completion of the work and performance of the hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

**3.02 INSTALLATION**

- A. Install hardware using manufacturers’ recommended fasteners and installation instructions, at height locations and clearance tolerances that comply with:
  1. NFPA 80
  2. NFPA 105
  3. ICC/ANSI A117.1
  4. DHI Publication – Installation Guide for Doors and Hardware
  5. Approved shop drawings
  6. Approved hardware schedule

- B. Install soffit mounted gaskets prior to other soffit mounted hardware ensuring a continuous seal around the perimeter of the opening without cutting or notching.
- C. Locate surface mounted door closers on stairwell side of stair doors, interior side of exterior openings, or on the room side of openings, unless it is a sterile room.
- D. Locate wall mounted bumper to contact the operating trim. Verify that pushbuttons of locksets do not contact the stop and inadvertently lock the door.
- E. Mount armor, mop, and kick plates flush with the bottom of the door and centered horizontally on the door.
- F. Notch thresholds with no larger than a 1/32-inch gap matching the frame profile. Set in a full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants" forming a tight seal between threshold and mounting surface. Caulk and seal the entire perimeter to prevent water leakage. Remove excess sealants immediately and clean the area thoroughly.
- G. Do not install surface mounted items until finishes have been completed on substrates involved. Set unit level, plumb and true to line location.

### **3.03 FIELD QUALITY CONTROL**

- A. Schedule a final walk through to inspect hardware installation ten (10) business days before final acceptance of the Owner. Visually inspect for proper fasteners and verify that doors open, close, latch properly, and that openings are installed to meet NFPA 80 and ANSI A117.1 requirements. Correct deficiencies, including missing hardware immediately. Provide a written report detailing discrepancies of each opening within five (5) business days of the walk through.
- B. Prior to receiving certificate of occupancy have doors inspected by a Certified Fire and Egress Door Assembly Inspector (CFDAI), as certified by Intertek (ITS), submit a written report to the Owner and Contractor. Doors failing inspection must be adjusted, modified, or replaced to be within appropriate code requirements without delay.

### **3.04 ADJUSTMENT, CLEANING, AND DEMONSTRATING**

- A. Prior to final adjustments, the HVAC system must be completed and balanced. Test that all openings meet ANSI A117.1 for closer opening pressure, closing speed, latching, and hardware operating forces. Replace items that cannot be adjusted to operate freely and smoothly or as intended for application.
- B. Prior to final walk-through inspection, clean adjacent surfaces soiled by hardware installation. Clean finish hardware per manufacturer's instructions after final adjustments have been made. Remove all protection and replace items that cannot be cleaned to manufacturer's level of finish quality.
- C. Demonstration and training will be conducted as per the following sessions. All sessions will be recorded and turned over to the Owner for future use.
  1. Hardware Maintenance: Conduct a training class for building maintenance personnel demonstrating the adjustment, operation, and maintenance of ALL hardware. Special tools for finish hardware to be turned over and demonstrated usage at the meeting.
  2. Key control system: Train the Owner's designated representative on the key control system demonstrating the permanent file keys, duplicate loaner keys, key receipts, key envelopes, key change identification sheets, biting lists, tags, and labels. When key management software is provided training will be provided for the setup and usage of the software.

### **3.05 PROTECTION**

- A. Leave manufacturer's protective film intact and, protect exit devices, locks, and surface mounted hardware with kraft paper or bubble wrap. Cover fire labels at painted products that bear a label with magnetic or masking tape. Keep protection in place until time of final cleaning and adjustment.

### **3.06 HARDWARE SET SCHEDULE**

- A. Door hardware items have been placed in sets which are intended to be a guide of design, grade, quality, function, operation, and performance.
  1. Review products that may require mounting accessories to meet door, frame, and swing conditions as these final details vary from manufacturer to manufacturer and provide as required.
  2. Where additional items of hardware are required for completion of the Work, a written statement of such omission, error, or other discrepancy is required to be submitted to the Architect, prior to bid date for clarification via an

addendum.

3. Abbreviations listed below do not appear in the manufacturer's literature, for any other abbreviations refer to manufacturer's literature.:
  - a. LDW = Less than Door Width
  - b. LAR = Length as Required
  - c. QTY = Quantity
  - d. CTC = Centerline to Centerline
  - e. BTB = Back-to-Back mounting

### **3.07 HARDWARE SCHEDULE**

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

## Heading #: 01

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
001E				RHR		
		1	Existi 3' 0"x6' 8" 1 3/4" ng	RHR		
		1	Existi 0" 3' 0"x6' 8" ng			
003				RHR		
		1	HMD 3' 0"x6' 8" 1 3/4"	RHR		
		1	HMF 0" 3' 0"x6' 8" Elev:D			
006				RHR		
		1	HMD 3' 0"x6' 8" 1 3/4"	RHR		
		1	HMF 0" 3' 0"x6' 8" Elev:D			

### Hardware for Heading#: 01

9 EA	Hinge, Full Mortise	ECBB1101NRP NRP 4-1/2" x 4-1/2"	US32D	(HI-1) Hager
3 EA	Rim Exit Device	4701RIM-0-36" 1-3/4"	US32D	(ED-5) Hager
3 EA	Exit Device Trim	47NL-ARC 1-3/4"	US32D	(ET-4) Hager
3 EA	Cylinder	3902	US26D	(CY-2) Hager
3 EA	Surface Closer	5100 HDCS	ALM	(CL-1) Hager
3 EA	Kick Plate	190S 10" x 34"	US32D	(KP-1) Hager
3 EA	Threshold	413S x 36"	MIL	(TH-1) Hager
3 EA	Rain Drip	810S x 40"	MIL	(GA-2) Hager
3 EA	Gasketing	891S-N x 36" x 80"	MIL	(GA-7) Hager
3 EA	Sweep	750S-N x 36"	MIL	(SW-1) Hager

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

## Heading #: 02

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
002E				LHR		
		1	Existing 3' 0"x6' 8" 1 3/4"	LHR		
		1	Existing 0" 3' 0"x6' 8"			

### Hardware for Heading#: 02

3 EA	Hinge, Full Mortise	ECBB1101NRP	NRP 4-1/2" x 4-1/2"	US32D	(HI-1) Hager	
1 EA	Cylindrical Lock Storeroom Lock	2580	ARC	US26D	(LO-1) Hager	
1 EA	Surface Closer	5100	HDCS	ALM	(CL-1) Hager	
1 EA	Kick Plate	190S	10" x 34"	US32D	(KP-1) Hager	
1 EA	Threshold	413S	x 36"	MIL	(TH-1) Hager	
1 EA	Gasketing	891S-N	x 36" x 80"	MIL	(GA-7) Hager	
1 EA	Sweep	750S-N	x 36"	MIL	(SW-1) Hager	

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

## Heading #: 03

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
004E				LHR		
		1	Existing 3' 0"x6' 8" 1 3/4"	LHR		
		1	Existing 0" 3' 0"x6' 8"			
<hr/>						
101E				LHR		
		1	Existing 3' 0"x6' 8" 1 3/4"	LHR		
		1	Existing 0" 3' 0"x6' 8"			
<hr/>						
301E				LHR		
		1	Existing 3' 0"x6' 8" 1 3/4"	LHR		
		1	Existing 0" 3' 0"x6' 8"			
<hr/>						
403E				LHR		
		1	Existing 3' 0"x6' 8" 1 3/4"	LHR		
		1	Existing 0" 3' 0"x6' 8"			

### Hardware for Heading#: 03

12 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-2) Hager
4 EA	Rim Exit Device	4701RIM-0-36" 1-3/4"	US32D	(ED-5) Hager
4 EA	Exit Device Trim	47BE-ARC 1-3/4"	US32D	(ET-5) Hager
4 EA	Surface Closer	5100 HDCS	ALM	(CL-1) Hager
4 EA	Kick Plate	190S 10" x 34"	US32D	(KP-1) Hager
4 EA	Wall Stop	236W	US32D	(ST-3) Hager
12 EA	Silencer	307D		(SI-1) Hager

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

## Heading #: 04

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
005E				RHR/RHR		
		1	Existi 3' 0"x6' 8" 1 3/4" ng	RHR		
		1	Existi 3' 0"x6' 8" 1 3/4" ng	RHR		
		1	Existi 0" 6' 0"x6' 8" ng			
<hr/>						
103E				RHR/RHR		
		1	Existi 3' 0"x6' 8" 1 3/4" ng	RHR		
		1	Existi 3' 0"x6' 8" 1 3/4" ng	RHR		
		1	Existi 0" 6' 0"x6' 8" ng			
<hr/>						
201E				RHR/RHR		
		1	Existi 3' 0"x6' 8" 1 3/4" ng	RHR		
		1	Existi 3' 0"x6' 8" 1 3/4" ng	RHR		
		1	Existi 0" 6' 0"x6' 8" ng			
<hr/>						
203E				LHR		
		1	Existi 3' 0"x6' 8" 1 3/4" ng	LHR		
		1	Existi 0" 3' 0"x6' 8" ng			
<hr/>						
303E				RHR/RHR		
		1	Existi 1' 6"x6' 8" 1 3/4" ng	RHR		
		1	Existi 1' 6"x6' 8" 1 3/4" ng	RHR		
		1	Existi 0" 3' 0"x6' 8" ng			
<hr/>						
401E				RHR/RHR		
		1	Existi 3' 0"x6' 8" 1 3/4" ng	RHR		
		1	Existi 3' 0"x6' 8" 1 3/4" ng	RHR		
		1	Existi 0" 6' 0"x6' 8" ng			

### Hardware for Heading#: 04

36 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-2) Hager
12 EA	Fire Rated Rim Exit	4501RIM-F-36"	US26D	(ED-2) Hager
12 EA	Exit Device Trim	45BE-ARC	US26D	(ET-2) Hager
12 EA	Surface Closer	5100	ALM	(CL-3) Hager
12 EA	Kick Plate	190S 10" x 34"	US32D	(KP-1) Hager
12 EA	Wall Stop	236W	US32D	(ST-1) Hager
6 EA	Gasketing	726 17'	S	(GA-3) Hager

Double egress with mullion

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

## Heading #: 05

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
102E				LH		
		1	Existing 3' 0"x6' 8" 1 3/4"	LH		
		1	Existing 0" 3' 0"x6' 8"			
202E				LH		
		1	Existing 3' 0"x6' 8" 1 3/4"	LH		
		1	Existing 0" 3' 0"x6' 8"			
302E				LH		
		1	Existing 3' 0"x6' 8" 1 3/4"	LH		
		1	Existing 0" 3' 0"x6' 8"			
402E				LH		
		1	Existing 3' 0"x6' 8" 1 3/4"	LH		
		1	Existing 0" 3' 0"x6' 8"			

### Hardware for Heading#: 05

12 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-2) Hager
4 EA	Cylindrical Lock Passage Latch	2510 ARC	US26D	(LO-2) Hager
4 EA	Surface Closer	5300 MLT	ALM	(CL-4) Hager
4 EA	Kick Plate	190S 10" x 34"	US32D	(KP-1) Hager
8 EA	Wall Stop	236W	US32D	(ST-1) Hager
12 EA	Silencer	307D		(SI-1) Hager

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

## Heading #: 06

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
AA-02				LHR		
		3	WDD 2' 6"x6' 8" 1 3/8"	LHR		
		3	WDF 0" 2' 6"x6' 8" Elev:A			
A01				RHR		
		17	WDD 2' 6"x6' 8" 1 3/8"	RHR		
		17	WDF 0" 2' 6"x6' 8" Elev:A			
B01				RHR		
		40	WDD 2' 6"x6' 8" 1 3/8"	RHR		
		40	WDF 0" 2' 6"x6' 8" Elev:A			

## Hardware for Heading#: 06

60 EA	Tubular Lock Passage Latch	3310 ARC		US26D	(LO-7) Hager	
60 EA	Door Stop	301D		US26D	(ST-4) Hager	
Balance of hardware by pre-hung door supplier						

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

## Heading #: 07

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
AA-04		3	WDD 2' 0"x6' 8" 1 3/8"	RHR/LHR		
		3	WDD 2' 0"x6' 8" 1 3/8"	RHR		
		3	WDF 0" 4' 0"x6' 8" Elev:B	LHR		
<hr/>						
A02				RHR/LHR		
		1	WDD 2' 0"x6' 8" 1 3/8"	RHR		
		1	WDD 2' 0"x6' 8" 1 3/8"	LHR		
		1	WDF 0" 4' 0"x6' 8" Elev:B			
<hr/>						
B02				RHR/LHR		
		40	WDD 2' 0"x6' 8" 1 3/8"	RHR		
		40	WDD 2' 0"x6' 8" 1 3/8"	LHR		
		40	WDF 0" 4' 0"x6' 8" Elev:B			

## Hardware for Heading#: 07

120 EA	Tubular Lock Single Dummy Trim	3317 ARC		US26D	(LO-9) Hager
60 EA	Magnetic Catch	900		ALM	(LO-10) Rockwood
120 EA	Door Stop	301D		US26D	(ST-4) Hager

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

## Heading #: 08

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
B03				LHR		
		40	HMD 2' 8"x6' 8" 1 3/4"	LHR		
		40	HMF 0" 2' 8"x6' 8" Elev:C			

### Hardware for Heading#: 08

120 EA	Hinge, Full Mortise	ECBB1101NRP	NRP 4-1/2" x 4-1/2"	US32D	(HI-1) Hager	
40 EA	Cylindrical Lock Office Lock	2550	ARC	US26D	(LO-4) Hager	
40 EA	Threshold	413S	x 36"	MIL	(TH-1) Hager	
40 EA	Gasketing	891S-N	x 36" x 80"	MIL	(GA-7) Hager	
40 EA	Sweep	750S-N	x 36"	MIL	(SW-1) Hager	

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

## Heading #: 09

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
AA-05E				LH		
		3	Existing 2' 10"x6' 8" 1 3/4"	LH		
		3	Existing 0" 2' 10"x6' 8"			
<hr/>						
A04E				LH		
		17	Existing 2' 10"x6' 8" 1 3/4"	LH		
		17	Existing 0" 2' 10"x6' 8"			
<hr/>						
B04E				LH		
		40	Existing 2' 10"x6' 8" 1 3/4"	LH		
		40	Existing 0" 2' 10"x6' 8"			

### Hardware for Heading#: 09

60 EA	Cylindrical Lock Office Lock	2550 ARC		US26D	(LO-4) Hager
60 EA	Surface Closer	5300 MLT		ALM	(CL-4) Hager
60 EA	Wall Stop	236W		US32D	(ST-1) Hager
60 EA	Gasketing	726 17'		S	(GA-3) Hager
120 EA	Knocker/Viewer	334V		US26D	(OT-1) Hager
60 EA	Privacy Latch	277D		US26D	(OT-2) Hager

Re-use existing hinges (confirm fire rating-may require new hinges)

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

## Heading #: 10

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
AA-01				LHR		
		3	WDD 3' 0"x6' 8" 1 3/8"	LHR		
		3	WDF 0" 3' 0"x6' 8" Elev:A			
<hr/>						
A05E				RH		
		17	Existi 2' 6"x6' 8" 1 3/8" ng	RH		
		17	Existi 0" 2' 6"x6' 8" ng			
<hr/>						
B05E				RH		
		40	Existi 2' 6"x6' 8" 1 3/8" ng	RH		
		40	Existi 0" 2' 6"x6' 8" ng			

### Hardware for Heading#: 10

60 EA	Tubular Lock Privacy Lock	3340 ARC		US26D	(LO-8) Hager
60 EA	Wall Stop	236W		US32D	(ST-3) Hager
Balance of hardware is existing					

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

## Heading #: 11

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
A06E				RH		
		17	Existing 2' 6"x6' 8" 1 3/8"	RH		
		17	Existing 0" 2' 6"x6' 8"			

B06E				RH		
		40	Existing 2' 6"x6' 8" 1 3/8"	RH		
		40	Existing 0" 2' 6"x6' 8"			

### Hardware for Heading#: 11

57 EA	Tubular Lock Privacy Lock	3340 ARC		US26D	(LO-8) Hager	
57 EA	Wall Stop	236W		US32D	(ST-3) Hager	
Balance of hardware is existing						

# Hardware Schedule

Project ID: Q26-04.14.26-01 Lineweaver Annex

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## Heading #: 12

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
AA-03				LH		
		3	WDD 3' 0"x6' 8" 1 3/8"	LH		
		3	WDF 0" 3' 0"x6' 8" Elev:A			

### Hardware for Heading#: 12

3 EA	Tubular Lock Privacy Lock	3340 ARC		US26D	(LO-8) Hager	
3 EA	Door Stop	301D		US26D	(ST-4) Hager	
Balance of hardware by pre-hung door supplier						

## **PART 1 – GENERAL**

### **1.01 SUMMARY**

- A. Section includes hardware for doors specified in “Hardware Sets”.
- B. Related Divisions:
  - 1. Division 03 Concrete
  - 2. Division 06 Rough & Finish Carpentry
  - 3. Division 07 Joint Sealants
  - 4. Division 08 Openings
  - 5. Division 09 Finishes
  - 6. Division 10 Specialties
  - 7. Division 13 Special Construction

### **1.02 REFERENCES**

- A. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI):
  - 1. ANSI/BHMA A156.1 Butts & Hinges (2016)
  - 2. ANSI/BHMA A156.2 Bored & Preamsembled Locks & Latches (2017)
  - 3. ANSI/BHMA A156.3 Exit Devices (2020)
  - 4. ANSI/BHMA A156.4 Door Controls – Closers (2019)
  - 5. ANSI/BHMA A156.5 Cylinders and Input Devices for Locks (2020)
  - 6. ANSI/BHMA A156.6 Architectural Door Trim (2015)
  - 7. ANSI/BHMA A156.8 Door Controls – Overhead Stops and Holders (2015)
  - 8. ANSI/BHMA A156.12 Interconnected Locks & Latches (2018)
  - 9. ANSI/BHMA A156.13 Mortise Locks & Latches (2017)
  - 10. ANSI/BHMA A156.14 Sliding & Folding Door Hardware (2019)
  - 11. ANSI/BHMA A156.15 Closer Holder Release Devices (2015)
  - 12. ANSI/BHMA A156.16 Auxiliary Hardware (2018)
  - 13. ANSI/BHMA A156.17 Self-Closing Hinges & Pivots (2019)
  - 14. ANSI/BHMA A156.18 Materials & Finishes (2020)
  - 15. ANSI/BHMA A156.21 Thresholds (2019)
  - 16. ANSI/BHMA A156.22 Door Gasketing Systems (2017)
  - 17. ANSI/BHMA A156.26 Continuous Hinges (2017)
  - 18. ANSI/BHMA A156.28 Keying Systems (2018)
  - 19. ANSI/BHMA A156.36 Auxiliary Locks (2020)
  - 20. ANSI/BHMA A156.39 Residential Locksets and Latches (2020)
- B. International Code Council/American National Standards Institute (ICC/ANSI)/ADA:
  - 1. ICC/ANSI A117.1 Standards for Accessible and Usable Buildings and Facilities.
- C. Door and Hardware Institute (DHI):
  - 1. DHI Publication – Abbreviations and Symbols (2019).
  - 2. DHI Publication – Installation Guide for Doors and Hardware (2020).
  - 3. DHI Publication – Sequence and Format of Hardware Schedule (2019).
- D. National Fire Protection Agency (NFPA):
  - 1. NFPA 70 National Electrical Code.
  - 2. NFPA 80 Standard for Fire Doors and Other Opening Protectives.
  - 3. NFPA 105 Standard for the Installation of Smoke Door Assemblies.

### **1.03 SUBMITTALS**

- A. Submit in accordance with Conditions of the Contract and Division 01 Administrative Requirements and Submittal Procedures Section.
- B. Shop Drawings:
  - 1. Schedule hardware in vertical format using the DHI publication Sequence and Formatting for the Hardware Schedule.
  - 2. Include abbreviations and symbols page to include manufacturers’ abbreviations, finish code descriptions, and fastener abbreviations including descriptions according to the DHI publication Abbreviations and Symbols.

3. Detail headings referencing the Architect's heading, opening number, locations, fire rating, handing, degree of opening, and description of the opening elements. Include Voltage, amperage, and operational descriptions for openings that have electrified hardware.
  4. Coordinate final door hardware schedule with doors, frames, and related work listing proper sizing of hardware, addressing door thickness, handing, function, mounting accessories, and finish of hardware.
  5. List related door devices specified in other Sections for each opening.
  6. Architectural Hardware Consultant (AHC), as certified by DHI, who will affix seal attesting to completeness and correctness, including the review of the hardware schedule prior to submittal.
- C. Product Data:
1. Furnish manufacturers' catalog sheets on design, grade, and function of items listed in hardware schedule. Submit only relevant information and circle or highlight the technical information including: model numbers, sizing information, voltage and amperage requirements, options and accessories required, means of fastening, listings of fire-rated applications, and finishes.
- E. Templates:
1. Within fourteen days of receiving approved door hardware submittals submit complete list of templates for each hardware item to the opening manufacturers and the installers. Include detailed lists of the hardware location requirements for mortised and surface applied hardware.
- F. Closeout Submittals: Include the following information as well as highlight and flag fire rated openings for annual inspections:
1. Cover page with required information:
    - a. Project name
    - b. Hardware supplier's name and contact information.
    - c. Date of substantial completion.
  2. Final record hardware schedule.
  3. Product Data.
  4. Keying Schedule.
  5. Operating and Maintenance Manual.
  6. Warranty Information.

#### **1.04 QUALITY ASSURANCE**

- A. Hardware supplier shall employ an Architectural Hardware Consultant (AHC) as certified by DHI and a member of the seal program who will be available at reasonable times during course of work for Project hardware consultation.
- B. Where openings are required to be accessible door hardware shall conform to ICC/ANSI A117.1.
- C. Fire Rated Door Assemblies: Where fire-rated door assemblies are indicated, provide door hardware complying with NFPA 80 that are listed and/or labeled by a qualified testing agency for fire-protection ratings indicated.
- D. Smoke and Draft Control Door Assemblies: Where smoke and draft control doors are required, provide door hardware that meets requirements of assemblies in compliance with NFPA 105.
- E. Door hardware certified to ANSI/BHMA standards as noted, manufacturer must participate and be listed in BHMA Certified Products Directory.
- F. Substitution requests shall be submitted in compliance with Division 01: create a comparison chart that includes the testing information as well as the warranty for both the specified product and the proposed substitution. Include the reason for requesting the substitution, clear catalog copy highlighting the proposed product and options, compliance statement, technical data, product warranty and lead time, to show how the proposed can meet or exceed established level of design, function, and quality.
- G. Meetings: Comply with requirements in Division 01 Section "Project Meetings."
  1. Keying Meeting
    - a. Within fourteen days of receiving approved door hardware submittals, contact Owner to establish a keying conference. Include keying meeting decisions into final keying schedule submittal after reviewing the following, but not limited to:
      - i. Function of the building, flow of traffic, individual area's purpose, and degree of security.
      - ii. Lock functions and operation.
      - iii. Preliminary key system schematic diagram.

- iv. Verify existing keyway(s), and/or proposed keyway(s)
- v. Visual key and cylinder identification
- vi. Quantity of keys required including master level keys, change keys, and keys per lock.
- vii. Review the key control system.
- viii. Determine the recipient and contact information for the delivery of keys and accessories.

H. Installer Qualifications: Specialized in performing installation of this Section and have five years minimum documented experience.

## **1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Pack each item complete with necessary parts and fasteners in manufacturer's original packaging.
- B. Mark hardware that is not bulk packed with architect's opening number, hardware set number, and item number for each type of hardware. Include keyset symbols and corresponding hardware component for keyed products. Mark hardware that is bulk packed with manufacturers' part number and reference all hardware sets associated.
- C. Deliver hardware to the job site according to the phasing agreed upon in the pre-installation meeting. Inventory the delivery with the supplier's assistance. Immediately note shortages and damages on the shipping receipts and bill of ladings. Coordinate replacement or repair with the supplier.
- D. Deliver permanent keys, cores, and related accessories directly to Owner via registered mail or overnight package service. Establish the instructions for delivery to Owner at "Keying Conference."
- E. Provide a clean, dry, and secure room for hardware delivered. Shelve hardware off the floor and with larger items of hardware stored on pallets. Arrange locksets and keyed cylinders by opening number. Organize the balance of hardware by brand, model of hardware, and hardware set number. Leave the door markings of the hardware visible for installers.
- F. Waste Management and Disposal: Separate waste materials for use or recycling in accordance with Division 01.

## **1.06 WARRANTY**

- A. General Warranty: Comply Division 01 for Warranty requirements.
- B. Special Warranty: Warranties specified in this article will not deprive Owner of other rights.
  - 1. Ten years for manual door closers.
  - 2. One year for locks.
  - 3. Five years for exit devices.

## **1.07 MAINTENANCE**

- A. Maintenance Tool and Instructions: Furnish a complete set of specialized tools and maintenance instructions for Owner's continued adjustment, maintenance, removal, and replacement of door hardware.

## **PART 2 – PRODUCTS**

### **2.01 MATERIALS**

- A. General:
  - 1. Produce hardware units of basic metal and forming method using manufacturer's standard metal alloy, composition, temper, and hardness, but in no case of lesser (commercially recognized) quality than specified within this specification section for applicable hardware units for finish designations indicated.
- B. Fasteners:
  - 1. Furnish screws for installation with each hardware item. Use only fasteners that are furnished by the hardware manufacturer to meet the manufacturer's templating requirements, warranty and NFPA 80 requirements.
  - 2. Provide Phillips flat-head screws except as otherwise indicated.
  - 3. Finish exposed screws to match hardware finish or, if exposed in surfaces of other work, to match finish of this other work as closely as possible including "prepared for paint" surfaces to receive painted finish.
  - 4. Use machine screws with lead expansion shields at hardware mounting to masonry walls and floors.
  - 5. Wood screw with plastic anchors at drywall applications without reinforcement and wood screws at applications with reinforcements.

6. Provide concealed fasteners for hardware units that are exposed when door is closed except to the extent no standard units of type specified are available with concealed fasteners.
  - a. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless their use is the only means of reinforcing the work adequately to fasten the hardware securely.
  - b. Where thru-bolts are used as a means of reinforcing the work, provide sleeves for each thru-bolt or use sex nut fasteners.
7. At exterior openings furnish stainless-steel fasteners for exposed fasteners, for example thresholds and screw-applied weatherstripping.

## 2.02 CONVENTIONAL HINGES

- A. Hinges, electric hinges, and self-closing hinges of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Products to be certified and listed by the following:
  1. Butts and Hinges: ANSI/BHMA A156.1.
  2. Template Hinge Dimensions: ANSI/BHMA A156.7.
  3. Self-Closing Hinges: ANSI/BHMA A156.17.
- C. Butt Hinges:
  1. Hinge weight and size unless otherwise indicated in hardware sets:
    - a. Doors up to 36" wide and up to 1-3/4" thick provide hinges with a minimum thickness of .134" and a minimum of 4-1/2" in height.
    - b. Doors over 36" wide up to 48" wide and up to 1-3/4" thick provide hinges with a minimum thickness of .145" and a minimum of 5" in height.
    - c. Doors greater than 1-3/4" thick provide hinges with a minimum thickness of .190" and a minimum of 5" in height.
    - d. Width of hinge is to be minimum required to clear surrounding trim.
    - e. Doors considered to be low to medium frequency use would require standard weight hinges and medium to high frequency use would require heavy weight hinges.
  2. Base material unless otherwise indicated in hardware sets:
    - a. Exterior Doors: 304 Stainless Steel, Brass or Bronze material.
    - b. Interior Doors: Steel material.
    - c. Fire Rated Doors: Steel or 304 Stainless Steel materials.
    - d. Stainless Steel ball bearing hinges to have stainless steel ball bearings. Steel ball bearings are unacceptable.
  3. Quantity of hinges per door unless otherwise stated in hardware sets:
    - a. Doors up to 60" in height provide 2 hinges.
    - b. Doors 60" up to 90" in height provide 3 hinges.
    - c. Doors 90" up to 120" in height provide 4 hinges.
    - d. Doors over 120" in height add 1 additional hinge per each additional 30" in height or fraction thereof.
    - e. Dutch doors provide 4 hinges up to 120" in height and 1 additional per each additional 30" in height or fraction thereof.
  4. Hinge design and options unless otherwise indicated in hardware sets:
    - a. Hinges are to be of a square corner five-knuckle design, flat button tips and have ball bearings unless otherwise indicated in hardware sets.
    - b. Out-swinging lockable and access-controlled doors are required to have Non-Removable Pins (NRP) to prevent removal of pin while door is in closed position.
    - c. When full width of opening is required, use hinges that are designed to swing door completely from opening when door is opened to 95 degrees.
- D. Acceptable Manufacturers:
  1. Hager
  2. Stanley
  3. McKinney

## 2.03 ALUMINUM GEARED CONTINUOUS HINGES

- A. Continuous hinges of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Products to be certified and listed by ANSI/BHMA A156.26 Grade 1.
- C. Determine final model numbers and accessories required using the following criteria:

1. Door inset in relation to the frame face.
2. Door thickness and weight.
3. At fire rated openings provide hinges that carry a UL certification, up to and including 90-minute applications for wood doors and up to 3-hour applications for metal doors and provide studs as required by the manufacturer's listings.
4. Provide heavy-duty hinges for high frequency and exterior applications.
5. When full width of opening is required, use hinges that are designed to swing door completely from opening when door is opened to 95 degrees.
6. Size length of hinge to equal the actual door height unless otherwise stated in hardware sets.

D. Material and Design:

1. Base material: Anodized aluminum manufactured from 6063-T6 material; unexposed working metal surfaces be coated with TFE dry lubricant.
2. Bearings:
  - a. Continuous hinges are to have a minimum spacing between bearings of 2-9/16". Typical door from 80" to 84" in height to have a minimum of 32 bearings.

E. Acceptable Manufacturers:

1. Hager
2. Stanley
3. Select

**2.04 FLUSH BOLTS AND COORDINATORS**

- A. Flush bolts of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer to be listed by the following: Auxiliary Hardware: ANSI/BHMI A156.16.
- C. Labeled openings: Provide automatic or constant latching flush bolts per hardware schedule for inactive leaf of pairs of doors. Provide dust proof strikes for bottom bolt.
- D. Non-Labeled openings: Provide two flush bolts for inactive leaf of pairs of doors per hardware schedule. Provide extension rods so that the center line of the top flush bolt is not more than 78" above the finish floor. Provide dust proof strike from bottom bolt.
- E. Acceptable Manufacturers:

	Manual Flush Bolt	Auto Flush Bolt	Dust Proof Strike
Hager	283D	292D/295W/296W	280X
Rockwood	557	1942	570
Trimco	3917	3815	3911

**2.05 STANDARD DUTY CYLINDRICAL LOCKS AND LATCHES (GRADE 2 CYLINDRICAL)**

- A. Locks and latches of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Product to be certified and listed by following:
  1. ANSI/BHMA A156.2 Series 4000 Certified to Grade 2.
  2. UL/c UL Labeled and listed for functions up to 3 hours for single doors up to 48" in width and up to 96" in height.
  3. UL10C/UBC 7-2 Positive Pressure Rated.
- C. Lock and latch function numbers and descriptions of manufacturer's series as listed in hardware sets.
- D. Material and Design:
  1. Lock and latch chassis to be zinc dichromate for corrosion resistance.

2. Keyed functions to be of a freewheeling design to help resist against vandalism.
3. Non-handed, field reversible.
4. Thru bolt mounting with no exposed screws.
5. Levers, zinc cast and plated to match finish designation in hardware sets.
6. Roses made of wrought brass or stainless-steel material.

E. Latch and Strike:

1. Stainless steel latch bolt with minimum of 1/2” throw and deadlocking for keyed and exterior functions. Provide 3/4” latch bolt for pairs of fire-rated doors where required by door manufacturer. Standard backset to be 2-3/4” and adjustable faceplate to accommodate a square edge door or a standard 1/8” beveled edge door.
2. Strike is to fit a standard ANSI A115 prep measuring 1-1/4” x 4-7/8” with proper lip length to protect surrounding trim.

F. Options:

1. Doors requiring lead line protection – provide locks with 1/16” lead applied to lock and 1/16” lead wrapped around latch bolt.
2. Provide knurled levers on entry side of doors that are potentially dangerous to visually impaired persons.

G. Acceptable Manufacturers:

Hager	2500 Series
Schlage	AL Series
Best	7K Series

**2.06 LIGHT DUTY TUBULAR LOCKS AND LATCHES (GRADE 3 TUBULAR)**

A. Locks and latches of one manufacturer as listed for continuity of design and consideration of warranty.

- B. Standards: Product to be certified and listed by following:
1. ANSI/BHMA A156.2 Series 4000 Certified to Grade 3.
  2. ICC/ANSI A117.1.

C. Lock and latch function numbers and descriptions of manufacturer’s series as listed in hardware sets.

D. Material and Design:

1. Non-handed, field reversible.
2. Roses are to be of solid brass or stainless-steel material and have a minimum diameter of 2-9/16”.

E. Latch and Strike:

1. Latch bolt with minimum of 1/2” throw. Standard backset to be adjustable from 2-3/8” to 2-3/4” and adjustable faceplate to accommodate a square edge door or a standard 1/8” beveled edge door.
2. Strike options include a full lip strike (square or round corners) and a 1-1/8” x 2-3/4” tee strike.

F. Acceptable Manufacturers:

Hager	3300
Schlage	F Series
Approved equal	

**2.07 DEADBOLTS (GRADE 2)**

A. Deadbolts of one manufacturer as listed for continuity of design and consideration of warranty.

- B. Standards: Manufacturer to be certified by the following:
1. Auxiliary Locks: ANSI/BHMA A156.5 Grade 1.
  2. UL/cUL listed for functions up to 3 hours for “A” label.
  3. UL10C/UBC 7-2 Positive Pressure Rated.

C. Deadbolt function numbers and descriptions of manufacturer’s series as listed in hardware sets.

D. Material and Design:

1. Latch bolt 1” throw, brass material with concealed hardened steel roller to prevent sawing or cutting.
2. Non-handed, field reversible.

E. Acceptable Manufacturers:

Hager	3200 Series
Best	8T Series
Sargent	470 Series

**2.08 EXIT DEVICES (GRADE 1)**

A. Exit Devices of one manufacturer as listed for continuity of design and consideration of warranty. Touchpad type finish to match balance of door hardware.

B. Standards: Manufacturer to be certified and/or listed by the following:

1. BHMA Certified ANSI A156.3 Grade 1.
2. UL/cUL Listed for up to 3 hours for "A" labeled doors.
3. UL10C/UBC 7-2 Positive Pressure Rated.
4. UL10B Neutral Pressure Rated.
5. UL 305 Listed for Panic Hardware.

C. Material and Design:

1. Provide exit devices with actuators that extend a minimum of one-half of door width.
2. Where trim is indicated in hardware sets provide the lever design to match design of lock levers.
3. Exit device to mount flush with door.
4. Latch bolts:
  - a. Rim device – 3/4" throw, Pullman type with automatic dead-latching, stainless steel
  - b. Surface vertical rod device – Top 1/2" throw, Pullman type with automatic dead-latching, stainless steel. Bottom 1/2" throw, Pullman type, held retracted during door swing, stainless steel.
5. Fasteners: Wood screws, machine screws, and thru bolts.

D. Lock and Latch Functions: Function numbers and descriptions of manufacturer's series and lever styles indicated in door hardware sets.

E. Acceptable Manufactures:

Hager	4700 Series	4600 Series
Von Duprin	22 Series	33 Series
Dormakaba	QED100 Series	QED200 Series

**2.09 CYLINDERS AND KEYING**

A. Cylinders of one manufacturer as listed for continuity of design and consideration of warranty.

B. Products to be certified and listed by the following:

1. Auxiliary Locks: ANSI/BHMA A156.5

C. Cylinders:

1. Provide cylinders matched to the types required for hardware that has a locking function and for keyed electronic functions. Furnish with appropriate collars, cams, and tailpieces to fit and operate associated hardware. Stacking collars is not acceptable, a single collar of proper size is required.
2. Manufacturer's standard tumbler type, seven-pin IC core and seven-pin conventional core supported by the Hager H series keyway.
3. Manufacturer's standard tumbler type six-pin conventional cylinder.

D. Keying:

1. Provide a new factory registered key system.
2. Provide a bitting list to Owner of combinations as established and expand to twenty-five percent for future use or as directed by Owner.

3. Keys to be shipped directly to the Owner's Representative as established during the keying conference.
  - a. Package the keys in individual envelopes, grouped by keyset symbol, and label envelopes with project name, factory registry number, and keyset symbol.

E. Acceptable Manufacturers:

Hager
Schlage
Sargent

**2.10 PUSH/PULL PLATES AND BARS**

- A. Push/Pull plates and bars of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer to be certified by the following:
  1. Architectural Door Trim: ANSI/BHMA A156.6.
  2. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- C. Push plates: .050" thick, square corner and beveled edges with countersunk screw holes. Width and height as stated in hardware sets.

D. Acceptable Manufacturers:

Hager	30S
Rockwood	70C
Trimco	1001-3

- E. Pull Plates: .050" thick, square corner and beveled edges. Width and height as stated in hardware sets, 3/4" diameter pull, with clearance of 2-1/2" from face of door.

F. Acceptable Manufacturers:

Hager	33J
Rockwood	111-70C
Trimco	1017-3

**2.11 CLOSERS (CAST IRON BODY GRADE 1)**

- A. Closers of one manufacturer as listed for continuity of design and consideration of warranty, unless otherwise indicated on hardware schedule, comply with manufacturer's recommendations for size of closer, depending on width of door, frequency of use, atmospheric pressure, ADAAG requirement, and fire rating.
- B. Standards: Manufacturer to be certified and or listed by the following:
  1. BHMA Certified ANSI A156.4 Grade 1.
  2. ADA Complaint ANSI A117.1.
  3. UL/c UL Listed up to 3 hours.
  4. UL10C Positive Pressure Rated.
  5. UL10B Neutral Pressure Rated.
- C. Material and Design:
  1. Provide cast iron non-handed bodies with full plastic covers.
  2. Closers will have separated staked adjustable valve screws for latch speed, sweep speed, and backcheck.
  3. Provide Tri-Pack arms and brackets for regular arm, top jamb, and parallel arm mounting.
  4. One-piece seamless steel spring tube sealed in hydraulic fluid.
  5. Double heat-treated steel tempered springs.
  6. Precision-machined heat-treated steel piston.
  7. Triple heat-treated steel spindle.
  8. Full rack and pinion operation.

- D. Mounting:
  1. Out-swing doors use surface parallel arm mount closers except where noted on hardware schedule.
  2. In-swing doors use surface regular arm mount closers except where noted on hardware schedule.
  3. Provide brackets and shoe supports for aluminum doors and frames to mount fifth screw.
  4. Furnish drop plates where top rail conditions on door do not allow for mounting of closer and where backside of closer is exposed through glass.
- E. Size closers in compliance with requirements for accessibility (ADAAG). Comply with following maximum opening force requirements.
  1. Interior hinged openings: 5.0 lbs.
  2. Fire-rated and exterior openings use minimum opening force allowable by authority having jurisdiction.
- F. Fasteners: Provide self-reaming, self-tapping wood and machine screws, and sex nuts and bolts for each closer.
- G. Acceptable manufacturers:

Hager	5100 Series
LCN	4040XP Series
Sargent	281 Series

**2.12 CLOSERS (ALUMINUM BODY GRADE 1)**

- A. Closers of one manufacturer as listed for continuity of design and consideration of warranty. Unless otherwise indicated on hardware schedule, comply with manufacturer’s recommendations for size of closer, depending on width of door, frequency of use, atmospheric pressure, ADAAG requirements, and fire rating.
- B. Standards: Manufacturer to be certified by the following:
  1. BHMA Certified ANSI A156.4 Grade 1.
  2. ADA Complaint ANSI A117.1.
  3. UL/c UL Listed up to 3 hours.
  4. UL10C Positive Pressure Rated.
  5. UL10B Neutral Pressure Rated.
- C. Material and Design:
  1. Provide aluminum non-handed bodies with full plastic covers.
  2. Closers will have separate staked adjustable valve screws for latch speed, sweep speed, and backcheck.
  3. Provide Tri-Pack arms and brackets for regular arm, top jamb, and parallel arm mounting.
  4. Double heat-treated steel, tempered springs.
  5. Precision machined heat-treated steel piston.
  6. Triple heat-treated steel spindle.
  7. Full rack and pinion operation.
- D. Mounting:
  1. Out-swing doors surface parallel arm mount closers except where noted on hardware schedule.
  2. In-swing doors surface regular arm mount closers except where noted on hardware schedule.
  3. Provide brackets and shoe supports for aluminum doors and frames to mount fifth screw.
  4. Furnish drop plates where top rail conditions on door do not allow for mounting of closer and where backside of closer is exposed through glass.
- E. Size closers in compliance with requirements for accessibility (ADAAG). Comply with following maximum opening force requirements.
  1. Interior hinged openings: 5.0 lbs.
  2. Fire-rated and exterior openings are to be adjusted to have minimum opening force allowable by authority having jurisdiction.
- F. Fasteners: Provide self-reaming, self-tapping wood and machine screws, and sex nuts and bolts for each closer.
- G. Acceptable manufacturers:

Hager	5200 Series	5300 Series
Norton	8000 Series	1600 Series
Sargent	1330 Series	1130 Series

**2.13 STOPS AND HOLDERS**

- A. Stops and holders of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Wall Stops: Provide door stops wherever necessary to prevent door or hardware from striking an adjacent partition or obstruction. Provide wall stops when possible. Door stops and holders mounted in concrete floor or masonry walls have stainless steel machine screws and lead expansion shields.
- C. Products to be certified and listed by the following:
  - 1. Auxiliary Hardware: ANSI/BHMA A156.16.

D. Acceptable Manufacturers:

	Convex	Concave
Hager	232W	236W
Rockwood	406	409
Trimco	1270WV	1270CV

**2.14 THRESHOLDS**

- A. Thresholds of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Set thresholds for exterior and acoustical openings in full bed of sealant with lead expansion shields and stainless-steel machine screws complying with requirements specified in Division 07 Section “Joint Sealants: Notched in field to fit frame by hardware installer. Refer to Drawings for special details.
- C. Standards: Manufacturer to be certified by the following:
  - 1. Thresholds: ANSI/BHMA A156.21.
  - 2. American with Disabilities Act Accessibility Guidelines (ADAAG).

D. Acceptable Manufacturers:

Hager	413S/520S
NGP	513/896N
Pemko	271A/2005AV

**2.15 DOOR GASKETING AND WEATHERSTRIP**

- A. Door gasketing and weather strip of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Provide continuous weather strip gasketing on exterior doors and provide smoke, light, or sound gasketing where indicated on hardware schedule. Provide noncorrosive fasteners for exterior applications.
  - 1. Perimeter gasketing: Apply to head and jamb, forming seal between door and frame.
  - 2. Meeting stile gasketing: Fasten to meeting stiles, forming seal when doors are in closed position.
  - 3. Door bottoms: Apply to bottom of door, forming seal with threshold or floor when door is in closed position.
  - 4. Sound Gasketing: Cutting or notching for stop mounted hardware not permitted.
  - 5. Drip Guard: Apply to exterior face of frame header. Lip length to extend 4” beyond width of door.
- C. Products to be certified and listed by the following:
  - 1. Door Gasketing and Edge Seal Systems: ANSI/BHMA A156.22.
  - 2. BHMA certified for door sweeps, automatic door bottoms, and adhesive applied gasketing.
- D. Smoke-Labeled Gasketing: Comply with NFPA 105 listed, labeled, and acceptable to Authorities Having Jurisdiction, for smoke control indicated.
  - 1. Provide smoke-labeled gasketing on 20-minute rated doors and on smoke rated doors.
- E. Fire-Rated Gasketing: Comply with NFPA 80 listed, labeled, and acceptable to Authorities Having Jurisdiction, for fire ratings indicated.
- F. Refer to Section 08 1416 Wood Doors for Category A or Category B. Comply with UBC 7-2 and UL10C positive pressure

where frame applied intumescent seals are required.

G. Acceptable Manufacturers:

1. Perimeter Gasketing:

	Stop Applied	Adhesive Applied
Hager	891S	726
NGP	135N	5050
Pemko	891S	S88BL

2. Door Bottom Sweeps:

Hager	802S
NGP	B606A
Pemko	18061CNB

**2.16 DOOR VIEWER**

A. Door viewer of one manufacturer as listed for continuity of design and consideration of warranty.

B. Products to be certified and listed by the following:

1. Auxiliary Hardware: ANSI/BHMA A156.16 for L033221.

C. Design:

1. Adjustable for use on doors 1-3/8" to 2-1/8" thick doors, 9/16" hole required.
2. One way 200-degree view.
3. Tamper resistant with a privacy flap.
4. 90 min. fire rating.

D. Acceptable Manufacturers:

Hager	334V
Rockwood	611 Series
Trimco	621 Series

**2.17 PRIVACY DOOR LATCH**

A. Privacy door latch of one manufacturer as listed for continuity of design and consideration of warranty.

B. Products to be certified and listed by the following:

1. UL Classification as Fire Door Accessory.
2. NFPA 80.
3. ICC/ANSI A117.1

C. Design:

1. Allows visitor identification, cannot be used to keep door ajar.
2. Does not allow door to be held open.

D. Acceptable Manufacturers:

Hager	277D
Pemko	PDL
Trimco	4017

**2.18 SILENCERS**

A. Where smoke, light, or weather seal are not required, provide three silencers per single door frame, two per double door frame and four per Dutch door frame.

B. Products to be certified and listed by the following:

1. Auxiliary Hardware: ANSI/BHMA A156.16

C. Acceptable Manufacturers:

	Hollow Metal Frame	Wood Frame
Hager	307D	308D
Rockwood	608	609
Trimco	1229A	1229B

**2.19 KEY CABINET**

- A. Provide key cabinet; surface mounted to wall.
- B. Key control system:
  1. Include two sets of key tags, hooks, labels, and envelopes.
  2. Contain system in metal cabinet with baked enamel finish.
  3. Capacity will be able to hold actual quantities of keys, plus 50 percent.
  4. Provide tools, instruction sheets, and accessories required to complete installation.

C. Acceptable Manufacturers:

Lund Equipment
Telkee
HPC

**2.20 FINISHES**

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

**PART 3 – EXECUTION**

**3.01 EXAMINATION**

- A. Examine doors and frames, with installers present, for compliance with requirements for installation tolerances, labeled fire-rated construction, wall and floor construction, and other conditions affecting performance.
- B. Where hardware will be installed directly on walls inspect applications for blocking material of sufficient type and size for hardware.
- C. Where existing products will be reused, examine existing door and frame sizes, preps, swings, ratings, and compare to the specified hardware for compatibility and functionality. The hardware set specified should act as guide for design and function. Provide filler plates as needed to fill and repair existing materials. Test any existing to remain hardware for functionality and visually inspect for damage. Note any defective or damaged products as well as noting any code deficiencies and submit issues and estimated costs for direction of how to proceed with repair or replacement.
- D. Notify Architect via a prepared written report and endorsed by installer of any discrepancies between the door schedule, door types, drawings, and scheduled hardware. List conditions detrimental to application, to the proper and timely completion of the work and performance of the hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

**3.02 INSTALLATION**

- A. Install hardware using manufacturers’ recommended fasteners and installation instructions, at height locations and clearance tolerances that comply with:
  1. NFPA 80
  2. NFPA 105
  3. ICC/ANSI A117.1
  4. DHI Publication – Installation Guide for Doors and Hardware
  5. Approved shop drawings
  6. Approved hardware schedule

- B. Install soffit mounted gaskets prior to other soffit mounted hardware ensuring a continuous seal around the perimeter of the opening without cutting or notching.
- C. Locate surface mounted door closers on stairwell side of stair doors, interior side of exterior openings, or on the room side of openings, unless it is a sterile room.
- D. Locate wall mounted bumper to contact the operating trim. Verify that pushbuttons of locksets do not contact the stop and inadvertently lock the door.
- E. Mount armor, mop, and kick plates flush with the bottom of the door and centered horizontally on the door.
- F. Notch thresholds with no larger than a 1/32-inch gap matching the frame profile. Set in a full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants" forming a tight seal between threshold and mounting surface. Caulk and seal the entire perimeter to prevent water leakage. Remove excess sealants immediately and clean the area thoroughly.
- G. Do not install surface mounted items until finishes have been completed on substrates involved. Set unit level, plumb and true to line location.

### **3.03 FIELD QUALITY CONTROL**

- A. Schedule a final walk through to inspect hardware installation ten (10) business days before final acceptance of the Owner. Visually inspect for proper fasteners and verify that doors open, close, latch properly, and that openings are installed to meet NFPA 80 and ANSI A117.1 requirements. Correct deficiencies, including missing hardware immediately. Provide a written report detailing discrepancies of each opening within five (5) business days of the walk through.
- B. Prior to receiving certificate of occupancy have doors inspected by a Certified Fire and Egress Door Assembly Inspector (CFDAI), as certified by Intertek (ITS), submit a written report to the Owner and Contractor. Doors failing inspection must be adjusted, modified, or replaced to be within appropriate code requirements without delay.

### **3.04 ADJUSTMENT, CLEANING, AND DEMONSTRATING**

- A. Prior to final adjustments, the HVAC system must be completed and balanced. Test that all openings meet ANSI A117.1 for closer opening pressure, closing speed, latching, and hardware operating forces. Replace items that cannot be adjusted to operate freely and smoothly or as intended for application.
- B. Prior to final walk-through inspection, clean adjacent surfaces soiled by hardware installation. Clean finish hardware per manufacturer's instructions after final adjustments have been made. Remove all protection and replace items that cannot be cleaned to manufacturer's level of finish quality.
- C. Demonstration and training will be conducted as per the following sessions. All sessions will be recorded and turned over to the Owner for future use.
  1. Hardware Maintenance: Conduct a training class for building maintenance personnel demonstrating the adjustment, operation, and maintenance of ALL hardware. Special tools for finish hardware to be turned over and demonstrated usage at the meeting.
  2. Key control system: Train the Owner's designated representative on the key control system demonstrating the permanent file keys, duplicate loaner keys, key receipts, key envelopes, key change identification sheets, bitting lists, tags, and labels. When key management software is provided training will be provided for the setup and usage of the software.

### **3.05 PROTECTION**

- A. Leave manufacturer's protective film intact and, protect exit devices, locks, and surface mounted hardware with kraft paper or bubble wrap. Cover fire labels at painted products that bear a label with magnetic or masking tape. Keep protection in place until time of final cleaning and adjustment.

### **3.06 HARDWARE SET SCHEDULE**

- A. Door hardware items have been placed in sets which are intended to be a guide of design, grade, quality, function, operation, and performance.
  1. Review products that may require mounting accessories to meet door, frame, and swing conditions as these final details vary from manufacturer to manufacturer and provide as required.
  2. Where additional items of hardware are required for completion of the Work, a written statement of such omission,

error, or other discrepancy is required to be submitted to the Architect, prior to bid date for clarification via an

addendum.

3. Abbreviations listed below do not appear in the manufacturer's literature, for any other abbreviations refer to manufacturer's literature.:
  - a. LDW = Less than Door Width
  - b. LAR = Length as Required
  - c. QTY = Quantity
  - d. CTC = Centerline to Centerline
  - e. BTB = Back-to-Back mounting

### **3.07 HARDWARE SCHEDULE**

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 01

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
101		1	ALD 3' 0"x7' 0" 2" Elev:E			
		1	ALF 0" 3' 0"x7' 0"			
103		1	ALD 3' 0"x7' 0" 2" Elev:E			
		1	ALF 0" 3' 0"x7' 0"			
001		1	ALD 3' 0"x7' 0" 2" Elev:E			
		1	ALF 0" 3' 0"x7' 0"			

### Hardware for Heading#: 01

3 EA	Continuous Hinge	1200-600XHD 83"	Clear	(HC-1) Hager
3 EA	Rim Exit Device	4601RIM-0-36"	US26D	(ED-1) Hager
3 EA	Exit Device Trim	46CE-ARC	US26D	(ET-1) Hager
3 EA	Cylinder	3902	US26D	(CY-1) Hager
3 EA	Surface Closer	5100	ALM	(CL-1) Hager
3 EA	Arm	5955	ALM	(CL-2) Hager
3 EA	Spacer	5113	ALM	(CL-3) Hager
3 EA	Drop Plate	5110	ALM	(CL-4) Hager
3 EA	Threshold	413S x 36"	MIL	(TH-1) Hager
3 EA	Gasketing	802S x 36" x 84"	MIL	(GA-1) Hager

NOTE: WEATHERSTRIP BY ALUMINUM FRAME MANUFACTURER

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 02

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
102		1	WDD 3' 0"x6' 8" 1 3/4" Elev:G		20	
		1	HMF 0" 3' 0"x6' 8" Elev:A			
<hr/>						
002		1	WDD 3' 0"x6' 8" 1 3/4" Elev:C		20	
		1	HMF 0" 3' 0"x6' 8" Elev:A			
<hr/>						
003		1	WDD 3' 0"x6' 8" 1 3/4" Elev:G		20	
		1	HMF 0" 3' 0"x6' 8" Elev:A			

### Hardware for Heading#: 02

9 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-1) Hager
3 EA	Fire Rated Rim Exit	4701RIM-F-36"	US32D	(ED-2) Hager
3 EA	Exit Device Trim	47KP-ARC	US32D	(ET-2) Hager
3 EA	Surface Closer	5300 HDCS	ALM	(CL-5) Hager
3 EA	Arm	5957	ALM	(CL-6) Hager
3 EA	Gasketing	726 17'	S	(GA-3) Hager

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 03

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
004		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			

010

1	WDD 3' 0"x6' 8" 1 3/4" Elev:K
1	HMF 0" 3' 0"x6' 8" Elev:A

### Hardware for Heading#: 03

6 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-1) Hager
2 EA	Cylindrical Lock Passage Latch	2510 ARC	US26D	(LO-1) Hager
2 EA	Door Stop	241F	US26D	(ST-1) Hager
6 EA	Silencer	307D		(SI-1) Hager

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 04

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
005		1	WDD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:A			

006

1	HMD 3' 0"x6' 8" 1 3/4" Elev:D
1	HMF 0" 3' 0"x6' 8" Elev:A

### Hardware for Heading#: 04

6 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-1) Hager
2 EA	Cylindrical Lock Storeroom Lock	2580 ARC	US26D	(LO-2) Hager
2 EA	Door Stop	241F	US26D	(ST-1) Hager
6 EA	Silencer	307D		(SI-1) Hager

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 04.1

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
105				LHR		
		1	WDD 3' 0"x6' 8" 1 3/4" Elev:F	LHR		
		1	HMF 0" 3' 0"x6' 8" Elev:A			

### Hardware for Heading#: 04.1

3 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-1) Hager
1 EA	Rim Exit Device	4601RIM-0-36"	US26D	(ED-1) Hager
1 EA	Exit Device Trim	46CE-ARC	US26D	(ET-1) Hager
1 EA	Cylinder	3902	US26D	(CY-1) Hager
1 EA	Surface Closer	5100	ALM	(CL-1) Hager
1 EA	Surface Closer	5300 MLT	ALM	(CL-9) Hager
1 EA	Wall Stop	236W	US32D	(ST-2) Hager
1 EA	Gasketing	726 17'	S	(GA-3) Hager

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 05

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
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007

1	HMD	3' 0"x6' 8" 1 3/4"	Elev:D			
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1	HMF	0" 3' 0"x6' 8"	Elev:A			
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### Hardware for Heading#: 05

3 EA	Hinge, Full Mortise	ECBB1101NRP 4-1/2" x 4-1/2"		US32D	(HI-2) Hager	
1 EA	Cylindrical Lock Storeroom Lock	2580 ARC		US26D	(LO-2) Hager	
1 EA	Surface Closer	5300 PSS		ALM	(CL-7) Hager	
1 EA	Arm	5926		ALM	(CL-8) Hager	
1 EA	Threshold	413S x 36"		MIL	(TH-1) Hager	
1 EA	Gasketing	802S x 36" x 78"		MIL	(GA-2) Hager	
1 EA	Gasketing	891S-N x 36" x 80"		MIL	(GA-4) Hager	

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 06

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
008		1	WDD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:A			

009

1	WDD 3' 0"x6' 8" 1 3/4" Elev:F
1	HMF 0" 3' 0"x6' 8" Elev:A

### Hardware for Heading#: 06

6 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-1) Hager
2 EA	Push Plate	30S-6"x16"	US32D	(PP-1) Hager
2 EA	Pull Plate	33J-4"x16"	US32D	(PP-2) Hager
2 EA	Surface Closer	5300 MLT	ALM	(CL-9) Hager
2 EA	Wall Stop	236W	US32D	(ST-2) Hager
6 EA	Silencer	307D		(SI-1) Hager

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 07

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
011		1	WDD 2' 6"x6' 8" 1 3/4" Elev:H			
		1	WDD 2' 6"x6' 8" 1 3/4" Elev:H			
		1	HMF 0" 5' 0"x6' 8" Elev:B			

024

1	WDD 2' 0"x6' 8" 1 3/4" Elev:H
1	WDD 3' 0"x6' 8" 1 3/4" Elev:H
1	HMF 0" 5' 0"x6' 8" Elev:B

### Hardware for Heading#: 07

12 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-1) Hager
2 EA	Flush Bolt	283D	US26D	(BO-1) Hager
2 EA	Dust Proof Strike	280X	US26D	(BO-2) Hager
2 EA	Cylindrical Lock Storeroom Lock	2580 ARC	US26D	(LO-2) Hager
4 EA	Silencer	307D		(SI-1) Hager

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 08

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
012		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
013		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
014		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
015		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
016		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
017		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
018		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
019		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
020		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
021		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 08

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
022		1	WDD 3' 0"x6' 8" 1 3/4" Elev:K			
		1	HMF 0" 3' 0"x6' 8" Elev:A			

023

1	WDD 3' 0"x6' 8" 1 3/4" Elev:K
1	HMF 0" 3' 0"x6' 8" Elev:A

### Hardware for Heading#: 08

36 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-1) Hager
12 EA	Cylindrical Lock Office Lock	2550 ARC	US26D	(LO-3) Hager
12 EA	Wall Stop	236W	US32D	(ST-2) Hager
36 EA	Silencer	307D		(SI-1) Hager

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 09

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
104				LHR	20	
		1	WDD 3' 0"x6' 8" 1 3/4" Elev:J	LHR		
		1	HMF 0" 3' 0"x6' 8" Elev:A			

### Hardware for Heading#: 09

3 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-1) Hager
1 EA	Fire Rated Rim Exit	4601RIM-F-36" 1-3/4"	US26D	(ED-3) Hager
1 EA	Exit Device Trim	46BE-AUG 1-3/4"	US26D	(ET-3) Hager
1 EA	Surface Closer	5300 MLT	ALM	(CL-9) Hager
1 EA	Wall Stop	236W	US32D	(ST-2) Hager
1 EA	Gasketing	726 17'	S	(GA-3) Hager

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 10

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
106					20	
		1	WDD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:A			

### Hardware for Heading#: 10

3 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"		US26D	(HI-1) Hager	
1 EA	Cylindrical Lock Storeroom Lock	2580 ARC		US26D	(LO-2) Hager	
1 EA	Surface Closer	5300 MLT		ALM	(CL-9) Hager	
1 EA	Wall Stop	236W		US32D	(ST-2) Hager	
1 EA	Gasketing	726 17'		S	(GA-3) Hager	

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 11

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
A-01					20	
		6	WDD 3' 0"x6' 8" 1 3/4" Elev:A			
		6	HMF 0" 3' 0"x6' 8" Elev:A			
A.1-01					20	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:A			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
B-01					20	
		6	HMD 3' 0"x6' 8" 1 3/4" Elev:A			
		6	HMF 0" 3' 0"x6' 8" Elev:A			
C-01					20	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:A			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
D-01					20	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:A			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
E-01					20	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:A			
		1	HMF 0" 3' 0"x6' 8" Elev:A			
F-01					20	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:A			
		1	HMF 0" 3' 0"x6' 8" Elev:A			

### Hardware for Heading#: 11

51 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-1) Hager
17 EA	Cylindrical Lock Passage Latch	2510 ARC	US26D	(LO-1) Hager
17 EA	Deadbolt	3215	US26D	(LO-4) Hager
17 EA	Surface Closer	5300 PSS	ALM	(CL-7) Hager
17 EA	Arm	5926	ALM	(CL-8) Hager
17 EA	Threshold	413S x 36"	MIL	(TH-1) Hager
17 EA	Gasketing	802S x 36" x 78"	MIL	(GA-2) Hager
17 EA	Gasketing	726 17'	S	(GA-3) Hager
17 EA	Knocker/Viewer	334V	US26D	(OT-1) Hager
17 EA	Viewer	1755	US26D	(OT-2) Hager
17 EA	Privacy Latch	277D	US26D	(OT-3) Hager

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 12

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
A-02		6	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		6	WDF 0" 3' 0"x6' 8"			
A-05		6	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		6	WDF 0" 3' 0"x6' 8"			
A.1-02		1	WDD 2' 6"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 2' 6"x6' 8"			
A.1-05		1	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 3' 0"x6' 8"			
B-02		6	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		6	WDF 0" 3' 0"x6' 8"			
B-05		6	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		6	WDF 0" 3' 0"x6' 8"			
C-02		1	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 3' 0"x6' 8"			
C-05		1	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 3' 0"x6' 8"			
D-02		1	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 3' 0"x6' 8"			
D-05		1	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 3' 0"x6' 8"			
E-02		1	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 3' 0"x6' 8"			
E-05		1	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 3' 0"x6' 8"			

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 12

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
F-02		1	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 3' 0"x6' 8"			

F-05

1	WDD 3' 0"x6' 8" 1 3/8" Elev:B
1	WDF 0" 3' 0"x6' 8"

### Hardware for Heading#: 12

34 EA	Tubular Lock Passage Latch	3310 ARC		US26D	(LO-5) Hager
34 EA	Door Stop	6212		US26D	(ST-3) Hager

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 13

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
A-03		6	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		6	WDF 0" 3' 0"x6' 8"			
<hr/>						
A.1-03		1	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 3' 0"x6' 8"			
<hr/>						
B-03		6	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		6	WDF 0" 3' 0"x6' 8"			
<hr/>						
C-03		1	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 3' 0"x6' 8"			
<hr/>						
D-03		1	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 3' 0"x6' 8"			
<b>Hardware for Heading#: 13</b>						
15 EA	Tubular Lock Privacy Lock	3340 ARC		US26D	(LO-6) Hager	
15 EA	Door Stop	6212		US26D	(ST-3) Hager	

# Hardware Schedule

Project ID: Q26-02.06.26-01 GLEN'S FAIR PRICE BLDG - SPEC

## Heading #: 14

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
A-04		6	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		6	WDF 0" 2' 8"x6' 8"			
<hr/>						
A.1-04		1	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 2' 8"x6' 8"			
<hr/>						
B-04		6	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		6	WDF 0" 2' 8"x6' 8"			
<hr/>						
C-04		1	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 2' 8"x6' 8"			
<hr/>						
D-04		1	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 2' 8"x6' 8"			
<hr/>						
E-04		1	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 2' 8"x6' 8"			
<hr/>						
F-04		1	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		1	WDF 0" 2' 8"x6' 8"			

### Hardware for Heading#: 14

17 EA	Deadbolt	3215	US26D	(LO-4) Hager
17 EA	Door Stop	6212	US26D	(ST-3) Hager

## **PART 1 – GENERAL**

### **1.01 SUMMARY**

- A. Section includes hardware for doors specified in “Hardware Sets”.
- B. Related Divisions:
  - 1. Division 03 Concrete
  - 2. Division 06 Rough & Finish Carpentry
  - 3. Division 07 Joint Sealants
  - 4. Division 08 Openings
  - 5. Division 09 Finishes
  - 6. Division 10 Specialties
  - 7. Division 13 Special Construction

### **1.02 REFERENCES**

- A. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI):
  - 1. ANSI/BHMA A156.1 Butts & Hinges (2016)
  - 2. ANSI/BHMA A156.2 Bored & Preassembled Locks & Latches (2017)
  - 3. ANSI/BHMA A156.3 Exit Devices (2020)
  - 4. ANSI/BHMA A156.4 Door Controls – Closers (2019)
  - 5. ANSI/BHMA A156.5 Cylinders and Input Devices for Locks (2020)
  - 6. ANSI/BHMA A156.6 Architectural Door Trim (2015)
  - 7. ANSI/BHMA A156.8 Door Controls – Overhead Stops and Holders (2015)
  - 8. ANSI/BHMA A156.12 Interconnected Locks & Latches (2018)
  - 9. ANSI/BHMA A156.13 Mortise Locks & Latches (2017)
  - 10. ANSI/BHMA A156.14 Sliding & Folding Door Hardware (2019)
  - 11. ANSI/BHMA A156.15 Closer Holder Release Devices (2015)
  - 12. ANSI/BHMA A156.16 Auxiliary Hardware (2018)
  - 13. ANSI/BHMA A156.17 Self-Closing Hinges & Pivots (2019)
  - 14. ANSI/BHMA A156.18 Materials & Finishes (2020)
  - 15. ANSI/BHMA A156.21 Thresholds (2019)
  - 16. ANSI/BHMA A156.22 Door Gasketing Systems (2017)
  - 17. ANSI/BHMA A156.26 Continuous Hinges (2017)
  - 18. ANSI/BHMA A156.28 Keying Systems (2018)
  - 19. ANSI/BHMA A156.36 Auxiliary Locks (2020)
  - 20. ANSI/BHMA A156.39 Residential Locksets and Latches (2020)
- B. International Code Council/American National Standards Institute (ICC/ANSI)/ADA:
  - 1. ICC/ANSI A117.1 Standards for Accessible and Usable Buildings and Facilities.
- C. Door and Hardware Institute (DHI):
  - 1. DHI Publication – Abbreviations and Symbols (2019).
  - 2. DHI Publication – Installation Guide for Doors and Hardware (2020).
  - 3. DHI Publication – Sequence and Format of Hardware Schedule (2019).
- D. National Fire Protection Agency (NFPA):
  - 1. NFPA 70 National Electrical Code.
  - 2. NFPA 80 Standard for Fire Doors and Other Opening Protectives.
  - 3. NFPA 105 Standard for the Installation of Smoke Door Assemblies.

### **1.03 SUBMITTALS**

- A. Submit in accordance with Conditions of the Contract and Division 01 Administrative Requirements and Submittal Procedures Section.
- B. Shop Drawings:
  - 1. Schedule hardware in vertical format using the DHI publication Sequence and Formatting for the Hardware Schedule.
  - 2. Include abbreviations and symbols page to include manufacturers’ abbreviations, finish code descriptions, and fastener abbreviations including descriptions according to the DHI publication Abbreviations and Symbols.

3. Detail headings referencing the Architect's heading, opening number, locations, fire rating, handing, degree of opening, and description of the opening elements. Include Voltage, amperage, and operational descriptions for openings that have electrified hardware.
4. Coordinate final door hardware schedule with doors, frames, and related work listing proper sizing of hardware, addressing door thickness, handing, function, mounting accessories, and finish of hardware.
5. List related door devices specified in other Sections for each opening.
6. Architectural Hardware Consultant (AHC), as certified by DHI, who will affix seal attesting to completeness and correctness, including the review of the hardware schedule prior to submittal.

C. Product Data:

1. Furnish manufacturers' catalog sheets on design, grade, and function of items listed in hardware schedule. Submit only relevant information and circle or highlight the technical information including: model numbers, sizing information, voltage and amperage requirements, options and accessories required, means of fastening, listings of fire-rated applications, and finishes.

E. Templates:

1. Within fourteen days of receiving approved door hardware submittals submit complete list of templates for each hardware item to the opening manufacturers and the installers. Include detailed lists of the hardware location requirements for mortised and surface applied hardware.

F. Closeout Submittals: Include the following information as well as highlight and flag fire rated openings for annual inspections:

1. Cover page with required information:
  - a. Project name
  - b. Hardware supplier's name and contact information.
  - c. Date of substantial completion.
2. Final record hardware schedule.
3. Product Data.
4. Keying Schedule.
5. Operating and Maintenance Manual.
6. Warranty Information.

#### 1.04 QUALITY ASSURANCE

- A. Hardware supplier shall employ an Architectural Hardware Consultant (AHC) as certified by DHI and a member of the seal program who will be available at reasonable times during course of work for Project hardware consultation.
- B. Where openings are required to be accessible door hardware shall conform to ICC/ANSI A117.1.
- C. Fire Rated Door Assemblies: Where fire-rated door assemblies are indicated, provide door hardware complying with NFPA 80 that are listed and/or labeled by a qualified testing agency for fire-protection ratings indicated.
- D. Smoke and Draft Control Door Assemblies: Where smoke and draft control doors are required, provide door hardware that meets requirements of assemblies in compliance with NFPA 105.
- E. Door hardware certified to ANSI/BHMA standards as noted, manufacturer must participate and be listed in BHMA Certified Products Directory.
- F. Substitution requests shall be submitted in compliance with Division 01: create a comparison chart that includes the testing information as well as the warranty for both the specified product and the proposed substitution. Include the reason for requesting the substitution, clear catalog copy highlighting the proposed product and options, compliance statement, technical data, product warranty and lead time, to show how the proposed can meet or exceed established level of design, function, and quality.
- G. Meetings: Comply with requirements in Division 01 Section "Project Meetings."
  1. Keying Meeting
    - a. Within fourteen days of receiving approved door hardware submittals, contact Owner to establish a keying conference. Include keying meeting decisions into final keying schedule submittal after reviewing the following, but not limited to:
      - i. Function of the building, flow of traffic, individual area's purpose, and degree of security.
      - ii. Lock functions and operation.
      - iii. Preliminary key system schematic diagram.

- iv. Verify existing keyway(s), and/or proposed keyway(s)
- v. Visual key and cylinder identification
- vi. Quantity of keys required including master level keys, change keys, and keys per lock.
- vii. Review the key control system.
- viii. Determine the recipient and contact information for the delivery of keys and accessories.

H. Installer Qualifications: Specialized in performing installation of this Section and have five years minimum documented experience.

### **1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Pack each item complete with necessary parts and fasteners in manufacturer's original packaging.
- B. Mark hardware that is not bulk packed with architect's opening number, hardware set number, and item number for each type of hardware. Include keyset symbols and corresponding hardware component for keyed products. Mark hardware that is bulk packed with manufacturers' part number and reference all hardware sets associated.
- C. Deliver hardware to the job site according to the phasing agreed upon in the pre-installation meeting. Inventory the delivery with the supplier's assistance. Immediately note shortages and damages on the shipping receipts and bill of ladings. Coordinate replacement or repair with the supplier.
- D. Deliver permanent keys, cores, and related accessories directly to Owner via registered mail or overnight package service. Establish the instructions for delivery to Owner at "Keying Conference."
- E. Provide a clean, dry, and secure room for hardware delivered. Shelve hardware off the floor and with larger items of hardware stored on pallets. Arrange locksets and keyed cylinders by opening number. Organize the balance of hardware by brand, model of hardware, and hardware set number. Leave the door markings of the hardware visible for installers.
- F. Waste Management and Disposal: Separate waste materials for use or recycling in accordance with Division 01.

### **1.06 WARRANTY**

- A. General Warranty: Comply Division 01 for Warranty requirements.
- B. Special Warranty: Warranties specified in this article will not deprive Owner of other rights.
  1. Ten years for manual door closers.
  2. One year for locks.
  3. Five years for exit devices.

### **1.07 MAINTENANCE**

- A. Maintenance Tool and Instructions: Furnish a complete set of specialized tools and maintenance instructions for Owner's continued adjustment, maintenance, removal, and replacement of door hardware.

## **PART 2 – PRODUCTS**

### **2.01 MATERIALS**

- A. General:
  1. Produce hardware units of basic metal and forming method using manufacturer's standard metal alloy, composition, temper, and hardness, but in no case of lesser (commercially recognized) quality than specified within this specification section for applicable hardware units for finish designations indicated.
- B. Fasteners:
  1. Furnish screws for installation with each hardware item. Use only fasteners that are furnished by the hardware manufacturer to meet the manufacturer's templating requirements, warranty and NFPA 80 requirements.
  2. Provide Phillips flat-head screws except as otherwise indicated.
  3. Finish exposed screws to match hardware finish or, if exposed in surfaces of other work, to match finish of this other work as closely as possible including "prepared for paint" surfaces to receive painted finish.
  4. Use machine screws with lead expansion shields at hardware mounting to masonry walls and floors.
  5. Wood screw with plastic anchors at drywall applications without reinforcement and wood screws at applications with reinforcements.

6. Provide concealed fasteners for hardware units that are exposed when door is closed except to the extent no standard units of type specified are available with concealed fasteners.
  - a. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless their use is the only means of reinforcing the work adequately to fasten the hardware securely.
  - b. Where thru-bolts are used as a means of reinforcing the work, provide sleeves for each thru-bolt or use sex nut fasteners.
7. At exterior openings furnish stainless-steel fasteners for exposed fasteners, for example thresholds and screw-applied weatherstripping.

## 2.02 CONVENTIONAL HINGES

- A. Hinges, electric hinges, and self-closing hinges of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Products to be certified and listed by the following:
  1. Butts and Hinges: ANSI/BHMA A156.1.
  2. Template Hinge Dimensions: ANSI/BHMA A156.7.
  3. Self-Closing Hinges: ANSI/BHMA A156.17.
- C. Butt Hinges:
  1. Hinge weight and size unless otherwise indicated in hardware sets:
    - a. Doors up to 36" wide and up to 1-3/4" thick provide hinges with a minimum thickness of .134" and a minimum of 4-1/2" in height.
    - b. Doors over 36" wide up to 48" wide and up to 1-3/4" thick provide hinges with a minimum thickness of .145" and a minimum of 5" in height.
    - c. Doors greater than 1-3/4" thick provide hinges with a minimum thickness of .190" and a minimum of 5" in height.
    - d. Width of hinge is to be minimum required to clear surrounding trim.
    - e. Doors considered to be low to medium frequency use would require standard weight hinges and medium to high frequency use would require heavy weight hinges.
  2. Base material unless otherwise indicated in hardware sets:
    - a. Exterior Doors: 304 Stainless Steel, Brass or Bronze material.
    - b. Interior Doors: Steel material.
    - c. Fire Rated Doors: Steel or 304 Stainless Steel materials.
    - d. Stainless Steel ball bearing hinges to have stainless steel ball bearings. Steel ball bearings are unacceptable.
  3. Quantity of hinges per door unless otherwise stated in hardware sets:
    - a. Doors up to 60" in height provide 2 hinges.
    - b. Doors 60" up to 90" in height provide 3 hinges.
    - c. Doors 90" up to 120" in height provide 4 hinges.
    - d. Doors over 120" in height add 1 additional hinge per each additional 30" in height or fraction thereof.
    - e. Dutch doors provide 4 hinges up to 120" in height and 1 additional per each additional 30" in height or fraction thereof.
  4. Hinge design and options unless otherwise indicated in hardware sets:
    - a. Hinges are to be of a square corner five-knuckle design, flat button tips and have ball bearings unless otherwise indicated in hardware sets.
    - b. Out-swinging lockable and access-controlled doors are required to have Non-Removable Pins (NRP) to prevent removal of pin while door is in closed position.
    - c. When full width of opening is required, use hinges that are designed to swing door completely from opening when door is opened to 95 degrees.
- D. Acceptable Manufacturers:
  1. Hager
  2. Stanley
  3. McKinney

## 2.03 ALUMINUM GEARED CONTINUOUS HINGES

- A. Continuous hinges of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Products to be certified and listed by ANSI/BHMA A156.26 Grade 1.
- C. Determine final model numbers and accessories required using the following criteria:

1. Door inset in relation to the frame face.
2. Door thickness and weight.
3. At fire rated openings provide hinges that carry a UL certification, up to and including 90-minute applications for wood doors and up to 3-hour applications for metal doors and provide studs as required by the manufacturer's listings.
4. Provide heavy-duty hinges for high frequency and exterior applications.
5. When full width of opening is required, use hinges that are designed to swing door completely from opening when door is opened to 95 degrees.
6. Size length of hinge to equal the actual door height unless otherwise stated in hardware sets.

D. Material and Design:

1. Base material: Anodized aluminum manufactured from 6063-T6 material; unexposed working metal surfaces be coated with TFE dry lubricant.
2. Bearings:
  - a. Continuous hinges are to have a minimum spacing between bearings of 2-9/16". Typical door from 80" to 84" in height to have a minimum of 32 bearings.

E. Acceptable Manufacturers:

1. Hager
2. Stanley
3. Select

## 2.04 FLUSH BOLTS AND COORDINATORS

- A. Flush bolts of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Manufacturer to be listed by the following: Auxiliary Hardware: ANSI/BHMI A156.16.
- C. Labeled openings: Provide automatic or constant latching flush bolts per hardware schedule for inactive leaf of pairs of doors. Provide dust proof strikes for bottom bolt.
- D. Non-Labeled openings: Provide two flush bolts for inactive leaf of pairs of doors per hardware schedule. Provide extension rods so that the center line of the top flush bolt is not more than 78" above the finish floor. Provide dust proof strike from bottom bolt.
- E. Acceptable Manufacturers:

	Manual Flush Bolt	Auto Flush Bolt	Dust Proof Strike
Hager	282D	292D/295W/296W	280X
Rockwood	555	1942	570
Trimco	3917	3815	3911

## 2.05 STANDARD DUTY CYLINDRICAL LOCKS AND LATCHES (GRADE 2 CYLINDRICAL)

- A. Locks and latches of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Standards: Product to be certified and listed by following:
  1. ANSI/BHMA A156.2 Series 4000 Certified to Grade 2.
  2. UL/cUL Labeled and listed for functions up to 3 hours for single doors up to 48" in width and up to 96" in height.
  3. UL10C/UBC 7-2 Positive Pressure Rated.
- C. Lock and latch function numbers and descriptions of manufacturer's series as listed in hardware sets.
- D. Material and Design:
  1. Lock and latch chassis to be zinc dichromate for corrosion resistance.

2. Keyed functions to be of a freewheeling design to help resist against vandalism.
3. Non-handed, field reversible.
4. Thru bolt mounting with no exposed screws.
5. Levers, zinc cast and plated to match finish designation in hardware sets.
6. Roses made of wrought brass or stainless-steel material.

E. Latch and Strike:

1. Stainless steel latch bolt with minimum of 1/2” throw and deadlocking for keyed and exterior functions. Provide 3/4” latch bolt for pairs of fire-rated doors where required by door manufacturer. Standard backset to be 2-3/4” and adjustable faceplate to accommodate a square edge door or a standard 1/8” beveled edge door.
2. Strike is to fit a standard ANSI A115 prep measuring 1-1/4” x 4-7/8” with proper lip length to protect surrounding trim.

F. Options:

1. Doors requiring lead line protection – provide locks with 1/16” lead applied to lock and 1/16” lead wrapped around latch bolt.
2. Provide knurled levers on entry side of doors that are potentially dangerous to visually impaired persons.

G. Acceptable Manufacturers:

Hager	3500 Series
Schlage	AL Series
Best	7K Series

**2.06 LIGHT DUTY TUBULAR LOCKS AND LATCHES (GRADE 3 TUBULAR)**

A. Locks and latches of one manufacturer as listed for continuity of design and consideration of warranty.

B. Standards: Product to be certified and listed by following:

1. ANSI/BHMA A156.2 Series 4000 Certified to Grade 3.
2. ICC/ANSI A117.1.

C. Lock and latch function numbers and descriptions of manufacturer’s series as listed in hardware sets.

D. Material and Design:

1. Non-handed, field reversible.
2. Roses are to be of solid brass or stainless-steel material and have a minimum diameter of 2-9/16”.

E. Latch and Strike:

1. Latch bolt with minimum of 1/2” throw. Standard backset to be adjustable from 2-3/8” to 2-3/4” and adjustable faceplate to accommodate a square edge door or a standard 1/8” beveled edge door.
2. Strike options include a full lip strike (square or round corners) and a 1-1/8” x 2-3/4” tee strike.

F. Acceptable Manufacturers:

Hager	3300
Schlage	F Series
Approved equal	

**2.07 DEADBOLTS (GRADE 2)**

A. Deadbolts of one manufacturer as listed for continuity of design and consideration of warranty.

B. Standards: Manufacturer to be certified by the following:

1. Auxiliary Locks: ANSI/BHMA A156.5 Grade 1.
2. UL/cUL listed for functions up to 3 hours for “A” label.
3. UL10C/UBC 7-2 Positive Pressure Rated.

C. Deadbolt function numbers and descriptions of manufacturer’s series as listed in hardware sets.

D. Material and Design:

1. Latch bolt 1” throw, brass material with concealed hardened steel roller to prevent sawing or cutting.

- 2. Non-handed, field reversible.

E. Acceptable Manufacturers:

Hager	3200 Series
Best	8T Series
Sargent	470 Series

**2.08 EXIT DEVICES (GRADE 1)**

- A. Exit Devices of one manufacturer as listed for continuity of design and consideration of warranty. Touchpad type finish to match balance of door hardware.
- B. Standards: Manufacturer to be certified and/or listed by the following:
  - 1. BHMA Certified ANSI A156.3 Grade 1.
  - 2. UL/cUL Listed for up to 3 hours for “A” labeled doors.
  - 3. UL10C/UBC 7-2 Positive Pressure Rated.
  - 4. UL10B Neutral Pressure Rated.
  - 5. UL 305 Listed for Panic Hardware.
- C. Material and Design:
  - 1. Provide exit devices with actuators that extend a minimum of one-half of door width.
  - 2. Where trim is indicated in hardware sets provide the lever design to match design of lock levers.
  - 3. Exit device to mount flush with door.
  - 4. Latch bolts:
    - a. Rim device – 3/4” throw, Pullman type with automatic dead-latching, stainless steel
    - b. Surface vertical rod device – Top 1/2” throw, Pullman type with automatic dead-latching, stainless steel. Bottom 1/2” throw, Pullman type, held retracted during door swing, stainless steel.
  - 5. Fasteners: Wood screws, machine screws, and thru bolts.
- D. Lock and Latch Functions: Function numbers and descriptions of manufacturer’s series and lever styles indicated in door hardware sets.
- E. Acceptable Manufactures:

Hager	4500 Series	4600 Series
Von Duprin	99 Series	33 Series
Sargent	80 Series	8500 Series

**2.09 CYLINDERS AND KEYING**

- A. Cylinders of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Products to be certified and listed by the following:
  - 1. Auxiliary Locks: ANSI/BHMA A156.5
- C. Cylinders:
  - 1. Provide cylinders matched to the types required for hardware that has a locking function and for keyed electronic functions. Furnish with appropriate collars, cams, and tailpieces to fit and operate associated hardware. Stacking collars is not acceptable, a single collar of proper size is required.
  - 2. Manufacturer’s standard tumbler type six-pin conventional cylinder.
- D. Keying:
  - 1. Provide a new factory registered key system.
  - 2. Provide a bitting list to Owner of combinations as established and expand to twenty-five percent for future use or as directed by Owner.
  - 3. Keys to be shipped directly to the Owner’s Representative as established during the keying conference.

- a. Package the keys in individual envelopes, grouped by keyset symbol, and label envelopes with project name, factory registry number, and keyset symbol.
- 4. Stamp large bow key blanks with visual key control (keyset symbol) and “Do Not Duplicate”.

E. Acceptable Manufacturers:

Hager
Schlage
Sargent

**2.10 CLOSERS (CAST IRON BODY GRADE 1)**

- A. Closers of one manufacturer as listed for continuity of design and consideration of warranty, unless otherwise indicated on hardware schedule, comply with manufacturer’s recommendations for size of closer, depending on width of door, frequency of use, atmospheric pressure, ADAAG requirement, and fire rating.
- B. Standards: Manufacturer to be certified and or listed by the following:
  - 1. BHMA Certified ANSI A156.4 Grade 1.
  - 2. ADA Complaint ANSI A117.1.
  - 3. UL/cUL Listed up to 3 hours.
  - 4. UL10C Positive Pressure Rated.
  - 5. UL10B Neutral Pressure Rated.
- C. Material and Design:
  - 1. Provide cast iron non-handed bodies with full plastic covers.
  - 2. Closers will have separated staked adjustable valve screws for latch speed, sweep speed, and backcheck.
  - 3. Provide Tri-Pack arms and brackets for regular arm, top jamb, and parallel arm mounting.
  - 4. One-piece seamless steel spring tube sealed in hydraulic fluid.
  - 5. Double heat-treated steel tempered springs.
  - 6. Precision-machined heat-treated steel piston.
  - 7. Triple heat-treated steel spindle.
  - 8. Full rack and pinion operation.
- D. Mounting:
  - 1. Out-swing doors use surface parallel arm mount closers except where noted on hardware schedule.
  - 2. In-swing doors use surface regular arm mount closers except where noted on hardware schedule.
  - 3. Provide brackets and shoe supports for aluminum doors and frames to mount fifth screw.
  - 4. Furnish drop plates where top rail conditions on door do not allow for mounting of closer and where backside of closer is exposed through glass.
- E. Size closers in compliance with requirements for accessibility (ADAAG). Comply with following maximum opening force requirements.
  - 1. Interior hinged openings: 5.0 lbs.
  - 2. Fire-rated and exterior openings use minimum opening force allowable by authority having jurisdiction.
- F. Fasteners: Provide self-reaming, self-tapping wood and machine screws, and sex nuts and bolts for each closer.

G. Acceptable manufacturers:

Hager	5100 Series
LCN	4040XP Series
Sargent	281 Series

**2.11 CLOSERS (ALUMINUM BODY GRADE 1)**

- A. Closers of one manufacturer as listed for continuity of design and consideration of warranty. Unless otherwise indicated on hardware schedule, comply with manufacturer’s recommendations for size of closer, depending on width of door, frequency of use, atmospheric pressure, ADAAG requirements, and fire rating.
- B. Standards: Manufacturer to be certified by the following:
  - 1. BHMA Certified ANSI A156.4 Grade 1.
  - 2. ADA Complaint ANSI A117.1.
  - 3. UL/cUL Listed up to 3 hours.

4. UL10C Positive Pressure Rated.
5. UL10B Neutral Pressure Rated.

C. Material and Design:

1. Provide aluminum non-handed bodies with full plastic covers.
2. Closers will have separate staked adjustable valve screws for latch speed, sweep speed, and backcheck.
3. Provide Tri-Pack arms and brackets for regular arm, top jamb, and parallel arm mounting.
4. Double heat-treated steel, tempered springs.
5. Precision machined heat-treated steel piston.
6. Triple heat-treated steel spindle.
7. Full rack and pinion operation.

D. Mounting:

1. Out-swing doors surface parallel arm mount closers except where noted on hardware schedule.
2. In-swing doors surface regular arm mount closers except where noted on hardware schedule.
3. Provide brackets and shoe supports for aluminum doors and frames to mount fifth screw.
4. Furnish drop plates where top rail conditions on door do not allow for mounting of closer and where backside of closer is exposed through glass.

E. Size closers in compliance with requirements for accessibility (ADAAG). Comply with following maximum opening force requirements.

1. Interior hinged openings: 5.0 lbs.
2. Fire-rated and exterior openings are to be adjusted to have minimum opening force allowable by authority having jurisdiction.

F. Fasteners: Provide self-reaming, self-tapping wood and machine screws, and sex nuts and bolts for each closer.

G. Acceptable manufacturers:

Hager	5200 Series	5300 Series
Norton	8000 Series	1600 Series
Sargent	1330 Series	1130 Series

## 2.12 STOPS AND HOLDERS

- A. Stops and holders of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Wall Stops: Provide door stops wherever necessary to prevent door or hardware from striking an adjacent partition or obstruction. Provide wall stops when possible. Door stops and holders mounted in concrete floor or masonry walls have stainless steel machine screws and lead expansion shields.
- C. Products to be certified and listed by the following:
  1. Auxiliary Hardware: ANSI/BHMA A156.16.

D. Acceptable Manufacturers:

	Convex	Concave
Hager	232W	236W
Rockwood	406	409

## 2.13 THRESHOLDS

- A. Thresholds of one manufacturer as listed for continuity of design and consideration of warranty.

- B. Set thresholds for exterior and acoustical openings in full bed of sealant with lead expansion shields and stainless-steel machine screws complying with requirements specified in Division 07 Section “Joint Sealants: Notched in field to fit frame by hardware installer. Refer to Drawings for special details.
- C. Standards: Manufacturer to be certified by the following:
  1. Thresholds: ANSI/BHMA A156.21.
  2. American with Disabilities Act Accessibility Guidelines (ADAAG).

D. Acceptable Manufacturers:

Hager	413S/520S
NGP	513/896N

**2.14 DOOR GASKETING AND WEATHERSTRIP**

- A. Door gasketing and weatherstrip of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing where indicated on hardware schedule. Provide noncorrosive fasteners for exterior applications.
  1. Perimeter gasketing: Apply to head and jamb, forming seal between door and frame.
  2. Meeting stile gasketing: Fasten to meeting stiles, forming seal when doors are in closed position.
  3. Door bottoms: Apply to bottom of door, forming seal with threshold or floor when door is in closed position.
  4. Sound Gasketing: Cutting or notching for stop mounted hardware not permitted.
  5. Drip Guard: Apply to exterior face of frame header. Lip length to extend 4” beyond width of door.
- C. Products to be certified and listed by the following:
  1. Door Gasketing and Edge Seal Systems: ANSI/BHMA A156.22.
  2. BHMA certified for door sweeps, automatic door bottoms, and adhesive applied gasketing.
- D. Smoke-Labeled Gasketing: Comply with NFPA 105 listed, labeled, and acceptable to Authorities Having Jurisdiction, for smoke control indicated.
  1. Provide smoke-labeled gasketing on 20-minute rated doors and on smoke rated doors.
- E. Fire-Rated Gasketing: Comply with NFPA 80 listed, labeled, and acceptable to Authorities Having Jurisdiction, for fire ratings indicated.
- F. Refer to Section 08 1416 Wood Doors for Category A or Category B. Comply with UBC 7-2 and UL10C positive pressure where frame applied intumescent seals are required.
- G. Acceptable Manufacturers:
  1. Perimeter Gasketing:

	Stop Applied	Adhesive Applied
Hager	891S	726
NGP	135N	5050

2. Door Bottom Sweeps:

Hager	750S / 770SV
NGP	200N/ 101V
Reese	

3. Overhead Drip Guard

Hager	810S
NGP	16

**2.15 DOOR VIEWER**

- A. Door viewer of one manufacturer as listed for continuity of design and consideration of warranty.

- B. Products to be certified and listed by the following:
1. Auxiliary Hardware: ANSI/BHMA A156.16 for L033221.

- C. Design:
1. Adjustable for use on doors 1-3/8” to 2-1/8” thick doors, 9/16” hole required.
  2. One way 200-degree view.
  3. Tamper resistant with a privacy flap.
  4. 90 min. fire rating.

- D. Acceptable Manufacturers:

Hager	334V
Rockwood	

**2.16 PRIVACY DOOR LATCH**

- A. Privacy door latch of one manufacturer as listed for continuity of design and consideration of warranty.

- B. Products to be certified and listed by the following:
1. UL Classification as Fire Door Accessory.
  2. NFPA 80.
  3. ICC/ANSI A117.1

- C. Design:
1. Allows visitor identification, cannot be used to keep door ajar.
  2. Does not allow door to be held open.

- D. Acceptable Manufacturers:

Hager	277D
Pemko	PDL

**2.17 SILENCERS**

- A. Where smoke, light, or weather seal are not required, provide three silencers per single door frame, two per double door frame and four per Dutch door frame.

- B. Products to be certified and listed by the following:
1. Auxiliary Hardware: ANSI/BHMA A156.16

- C. Acceptable Manufacturers:

	Hollow Metal Frame	Wood Frame
Hager	307D	308D
Rockwood	608	609

**2.18 KEY CABINET**

- A. Provide key cabinet; surface mounted to wall.

- B. Key control system:
1. Include two sets of key tags, hooks, labels, and envelopes.
  2. Contain system in metal cabinet with baked enamel finish.
  3. Capacity will be able to hold actual quantities of keys, plus 50 percent.
  4. Provide tools, instruction sheets, and accessories required to complete installation.

C. Acceptable Manufacturers:

Lund Equipment

**2.19 FINISHES**

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

**PART 3 – EXECUTION**

**3.01 EXAMINATION**

- A. Examine doors and frames, with installers present, for compliance with requirements for installation tolerances, labeled fire-rated construction, wall and floor construction, and other conditions affecting performance.
- B. Where hardware will be installed directly on walls inspect applications for blocking material of sufficient type and size for hardware.
- C. Where existing products will be reused, examine existing door and frame sizes, preps, swings, ratings, and compare to the specified hardware for compatibility and functionality. The hardware set specified should act as guide for design and function. Provide filler plates as needed to fill and repair existing materials. Test any existing to remain hardware for functionality and visually inspect for damage. Note any defective or damaged products as well as noting any code deficiencies and submit issues and estimated costs for direction of how to proceed with repair or replacement.
- D. Notify Architect via a prepared written report and endorsed by installer of any discrepancies between the door schedule, door types, drawings, and scheduled hardware. List conditions detrimental to application, to the proper and timely completion of the work and performance of the hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

**3.02 INSTALLATION**

- A. Install hardware using manufacturers’ recommended fasteners and installation instructions, at height locations and clearance tolerances that comply with:
  - 1. NFPA 80
  - 2. NFPA 105
  - 3. ICC/ANSI A117.1
  - 4. DHI Publication – Installation Guide for Doors and Hardware
  - 5. Approved shop drawings
  - 6. Approved hardware schedule
- B. Install soffit mounted gaskets prior to other soffit mounted hardware ensuring a continuous seal around the perimeter of the opening without cutting or notching.
- C. Locate surface mounted door closers on stairwell side of stair doors, interior side of exterior openings, or on the room side of openings, unless it is a sterile room.
- D. Locate wall mounted bumper to contact the operating trim. Verify that pushbuttons of locksets do not contact the stop and inadvertently lock the door.
- E. Mount armor, mop, and kick plates flush with the bottom of the door and centered horizontally on the door.
- F. Notch thresholds with no larger than a 1/32-inch gap matching the frame profile. Set in a full bed of sealant complying with requirements specified in Division 07 Section “Joint Sealants” forming a tight seal between threshold and mounting surface. Caulk and seal the entire perimeter to prevent water leakage. Remove excess sealants immediately and clean the area thoroughly.

- G. Do not install surface mounted items until finishes have been completed on substrates involved. Set unit level, plumb and true to line location.

### **3.03 FIELD QUALITY CONTROL**

- A. Schedule a final walk through to inspect hardware installation ten (10) business days before final acceptance of the Owner. Visually inspect for proper fasteners and verify that doors open, close, latch properly, and that openings are installed to meet NFPA 80 and ANSI A117.1 requirements. Correct deficiencies, including missing hardware immediately. Provide a written report detailing discrepancies of each opening within five (5) business days of the walk through.
- B. Prior to receiving certificate of occupancy have doors inspected by a Certified Fire and Egress Door Assembly Inspector (CFDAI), as certified by Intertek (ITS), submit a written report to the Owner and Contractor. Doors failing inspection must be adjusted, modified, or replaced to be within appropriate code requirements without delay.

### **3.04 ADJUSTMENT, CLEANING, AND DEMONSTRATING**

- A. Prior to final adjustments, the HVAC system must be completed and balanced. Test that all openings meet ANSI A117.1 for closer opening pressure, closing speed, latching, and hardware operating forces. Replace items that cannot be adjusted to operate freely and smoothly or as intended for application.
- B. Prior to final walk-through inspection, clean adjacent surfaces soiled by hardware installation. Clean finish hardware per manufacturer's instructions after final adjustments have been made. Remove all protection and replace items that cannot be cleaned to manufacturer's level of finish quality.
- C. Demonstration and training will be conducted as per the following sessions. All sessions will be recorded and turned over to the Owner for future use.
  - 1. Hardware Maintenance: Conduct a training class for building maintenance personnel demonstrating the adjustment, operation, and maintenance of ALL hardware. Special tools for finish hardware to be turned over and demonstrated usage at the meeting.
  - 2. Key control system: Train the Owner's designated representative on the key control system demonstrating the permanent file keys, duplicate loaner keys, key receipts, key envelopes, key change identification sheets, biting lists, tags, and labels. When key management software is provided training will be provided for the setup and usage of the software.

### **3.05 PROTECTION**

- A. Leave manufacturer's protective film intact and, protect exit devices, locks, and surface mounted hardware with kraft paper or bubble wrap. Cover fire labels at painted products that bear a label with magnetic or masking tape. Keep protection in place until time of final cleaning and adjustment.

### **3.06 HARDWARE SET SCHEDULE**

- A. Door hardware items have been placed in sets which are intended to be a guide of design, grade, quality, function, operation, and performance.
  - 1. Review products that may require mounting accessories to meet door, frame, and swing conditions as these final details vary from manufacturer to manufacturer and provide as required.
  - 2. Where additional items of hardware are required for completion of the Work, a written statement of such omission, error, or other discrepancy is required to be submitted to the Architect, prior to bid date for clarification via an addendum.
  - 3. Abbreviations listed below do not appear in the manufacturer's literature, for any other abbreviations refer to manufacturer's literature.:
    - a. LDW = Less than Door Width
    - b. LAR = Length as Required
    - c. QTY = Quantity
    - d. CTC = Centerline to Centerline
    - e. BTB = Back-to-Back mounting

### **3.07 HARDWARE SCHEDULE**

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 01

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
001		1	HMD 3' 0"x7' 0" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x7' 0" Elev:A			
003		1	HMD 3' 0"x7' 0" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x7' 0" Elev:A			
109		1	HMD 3' 0"x7' 0" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x7' 0" Elev:A			

## Hardware for Heading#: 01

9 EA	Hinge, Full Mortise	ECBB1101NRP	NRP 4-1/2" x 4-1/2"	US32D	(HI-1) Hager
3 EA	Rim Exit Device	4501RIM-0-36"		US26D	(ED-1) Hager
3 EA	Exit Device Trim	45NL-ARC		US26D	(ET-1) Hager
3 EA	Cylinder	3901		US26D	(CY-1) Hager
3 EA	Surface Closer	5100 HDCS		ALM	(CL-1) Hager
3 EA	Arm	5955		ALM	(CL-2) Hager
3 EA	Threshold	413S x 36"		MIL	(TH-1) Hager
3 EA	Gasketing	891S-N x 36" x 84"		MIL	(GA-1) Hager
3 EA	Rain Drip	810S x 40"		MIL	(GA-2) Hager
3 EA	Sweep	750S-N x 36"		MIL	(SW-1) Hager

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 02

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
002					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
011					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
016					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
108					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
113					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
119					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
201					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
205					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
206					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
301					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 02

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
305					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
306					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
401					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
405					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
406					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			

### Hardware for Heading#: 02

45 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-2) Hager
15 EA	Fire Rated Rim Exit	4501RIM-F-36"	US26D	(ED-2) Hager
15 EA	Exit Device Trim	45BE-ARC	US26D	(ET-2) Hager
15 EA	Surface Closer	5100	ALM	(CL-3) Hager
15 EA	Wall Stop	236W	US32D	(ST-1) Hager
15 EA	Gasketing	726 17'	S	(GA-3) Hager

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 03

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
004		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F		90	
		1	HMF 0" 3' 0"x6' 8" Elev:B			
007		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F		90	
		1	HMF 0" 3' 0"x6' 8" Elev:B			
009		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F		90	
		1	HMF 0" 3' 0"x6' 8" Elev:B			
012		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F		90	
		1	HMF 0" 3' 0"x6' 8" Elev:B			
110		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F		20	
		1	HMF 0" 3' 0"x6' 8" Elev:B			
111		1	HMD 2' 2"x6' 8" 1 3/4" Elev:F		90	
		1	HMF 0" 2' 2"x6' 8" Elev:E			
118		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F		90	
		1	HMF 0" 3' 0"x6' 8" Elev:B			
203		1	HMD 2' 2"x6' 8" 1 3/4" Elev:F		90	
		1	HMF 0" 2' 2"x6' 8" Elev:E			
303		1	HMD 2' 2"x6' 8" 1 3/4" Elev:F		90	
		1	HMF 0" 2' 2"x6' 8" Elev:E			
403		1	HMD 2' 2"x6' 8" 1 3/4" Elev:F		90	
		1	HMF 0" 2' 2"x6' 8" Elev:E			

### Hardware for Heading#: 03

30 EA    Hinge, Full Mortise    ECBB1100 4-1/2" x 4-1/2"    US26D    (HI-2) Hager

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

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## Heading #: 03

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
			<b>Hardware for Heading#: 03</b>			
10 EA	Cylindrical Lock Storeroom Lock	2580 ARC		US26D	(LO-1) Hager	
10 EA	Surface Closer	5300 MLT		ALM	(CL-4) Hager	
10 EA	Wall Stop	236W		US32D	(ST-1) Hager	
10 EA	Gasketing	726 17'		S	(GA-3) Hager	

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 04

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
005		1	HMD 3' 0"x7' 0" 1 3/4" Elev:H			
		1	HMD 3' 0"x7' 0" 1 3/4" Elev:H			
		1	HMF 0" 6' 0"x7' 0" Elev:A			

010

1	HMD 3' 0"x7' 0" 1 3/4" Elev:H
1	HMD 3' 0"x7' 0" 1 3/4" Elev:H
1	HMF 0" 6' 0"x7' 0" Elev:C

### Hardware for Heading#: 04

12 EA	Hinge, Full Mortise	ECBB1101NRP NRP 4-1/2" x 4-1/2"	US32D	(HI-1) Hager
4 EA	Flush Bolt	282D	US26D	(BO-1) Hager
2 EA	Cylindrical Lock Storeroom Lock	2580 ARC	US26D	(LO-1) Hager
2 EA	Surface Closer	5100 HDHO	ALM	(CL-5) Hager
2 EA	Arm	5108	ALM	(CL-6) Hager
2 EA	Threshold	413S x 72"	MIL	(TH-2) Hager
2 EA	Gasketing	891S-N x 72" x 84"	MIL	(GA-4) Hager
2 EA	Rain Drip	810S x 76"	MIL	(GA-5) Hager
4 EA	Sweep	750S-N x 36"	MIL	(SW-1) Hager

METAL ASTRAGAL BY DOOR MANUFACTURER

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 05

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
006					90	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
105					20	
		1	WDD 3' 0"x6' 8" 1 3/4" Elev:B			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
117					20	
		1	WDD 3' 0"x6' 8" 1 3/4" Elev:J			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
202					20	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
302					20	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
402					20	
		1	HMD 3' 0"x6' 8" 1 3/4" Elev:F			
		1	HMF 0" 3' 0"x6' 8" Elev:B			

## Hardware for Heading#: 05

18 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-2) Hager
6 EA	Cylindrical Lock Passage Latch	2510 ARC	US26D	(LO-2) Hager
6 EA	Surface Closer	5300 MLT	ALM	(CL-4) Hager
6 EA	Wall Stop	236W	US32D	(ST-1) Hager
6 EA	Gasketing	726 17'	S	(GA-3) Hager

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 06

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
008		1	HMD 3' 0"x7' 0" 1 3/4" Elev:E			
		1	HMD 3' 0"x7' 0" 1 3/4" Elev:E			
		1	HMF 0" 6' 0"x7' 0" Elev:C			

## Hardware for Heading#: 06

6 EA	Hinge, Full Mortise	ECBB1101NRP	NRP 4-1/2" x 4-1/2"	US32D	(HI-1) Hager	
2 EA	Surface Vert Rod Exit	4501SVRLBR-0-36"	x84"	US26D	(ED-3) Hager	
1 EA	Exit Device Trim	45NL-ARC		US26D	(ET-1) Hager	
1 EA	Cylinder	3901		US26D	(CY-1) Hager	
2 EA	Surface Closer	5100 HDCS		ALM	(CL-1) Hager	
2 EA	Arm	5955		ALM	(CL-2) Hager	
1 EA	Threshold	413S	x 72"	MIL	(TH-2) Hager	
1 EA	Gasketing	891S-N	x 72" x 84"	MIL	(GA-4) Hager	
1 EA	Rain Drip	810S	x 76"	MIL	(GA-5) Hager	
2 EA	Sweep	750S-N	x 36"	MIL	(SW-1) Hager	

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 07

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
013		1	HMD 4' 0"x7' 0" 1 3/4" Elev:D			
		1	HMF 0" 4' 0"x7' 0" Elev:D			

### Hardware for Heading#: 07

3 EA	Hinge, Full Mortise	ECBB1101NRP	NRP 4-1/2" x 4-1/2"	US32D	(HI-1) Hager	
1 EA	Cylindrical Lock Storeroom Lock	2580	ARC	US26D	(LO-1) Hager	
1 EA	Surface Closer	5100	HDCS	ALM	(CL-1) Hager	
1 EA	Arm	5955		ALM	(CL-2) Hager	
1 EA	Threshold	413S	x 48"	MIL	(TH-3) Hager	
1 EA	Gasketing	891S-N	x 48" x 84"	MIL	(GA-6) Hager	
1 EA	Rain Drip	810S	x 52"	MIL	(GA-8) Hager	
1 EA	Sweep	750S-N	x 48"	MIL	(SW-2) Hager	

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 07A

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
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015

1	HMD	3' 0"x6' 8" 1 3/4"	Elev:D
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1	HMF	0" 3' 0"x6' 8"	Elev:B
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### Hardware for Heading#: 07A

3 EA	Hinge, Full Mortise	ECBB1101NRP	NRP 4-1/2" x 4-1/2"	US32D	(HI-1) Hager
1 EA	Cylindrical Lock Storeroom Lock	2580	ARC	US26D	(LO-1) Hager
1 EA	Surface Closer	5100	HDCS	ALM	(CL-1) Hager
1 EA	Arm	5955		ALM	(CL-2) Hager
1 EA	Threshold	413S	x 36"	MIL	(TH-1) Hager
1 EA	Rain Drip	810S	x 40"	MIL	(GA-2) Hager
1 EA	Gasketing	891S-N	x 36" x 80"	MIL	(GA-7) Hager
1 EA	Sweep	750S-N	x 36"	MIL	(SW-1) Hager

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 08

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
014		1	WDD 3' 0"x6' 8" 1 3/4" Elev:J		20	
		1	HMF 0" 3' 0"x6' 8" Elev:B			
114		1	WDD 3' 0"x6' 8" 1 3/4" Elev:J		20	
		1	HMF 0" 3' 0"x6' 8" Elev:B			
115		1	WDD 3' 0"x6' 8" 1 3/4" Elev:J		20	
		1	HMF 0" 3' 0"x6' 8" Elev:B			
116		1	WDD 3' 0"x6' 8" 1 3/4" Elev:J		20	
		1	HMF 0" 3' 0"x6' 8" Elev:B			

### Hardware for Heading#: 08

12 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-2) Hager
4 EA	Cylindrical Lock Classroom Lock	2570 ARC	US26D	(LO-3) Hager
4 EA	Surface Closer	5300 MLT	ALM	(CL-4) Hager
4 EA	Wall Stop	236W	US32D	(ST-1) Hager
4 EA	Gasketing	726 17'	S	(GA-3) Hager

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 09

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
101		1	ALD 1' 6"x6' 8" 2"			
		1	ALD 1' 6"x6' 8" 2" Elev:A			
		1	ALF 0" 3' 0"x6' 8"			

### Hardware for Heading#: 09

2 EA	Continuous Hinge	780-112HD 79"		Clear	(HC-2) Hager	
2 EA	Concealed Vertical Rod Exit Device	4601CVR-0-36"x84"		US26D	(ED-4) Hager	
2 EA	Exit Device Trim	46CE-ARC		US26D	(ET-3) Hager	
2 EA	Cylinder	3902		US26D	(CY-2) Hager	
2 EA	Surface Closer	5100 HDCS		ALM	(CL-1) Hager	
2 EA	Arm	5955		ALM	(CL-2) Hager	
2 EA	Spacer	5113		ALM	(CL-7) Hager	
2 EA	Drop Plate	5110		ALM	(CL-8) Hager	
1 EA	Threshold	413S x 36"		MIL	(TH-1) Hager	
2 EA	Sweep	750S-N x 18"		MIL	(SW-3) Hager	

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 09A

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
102		1	ALD 1' 6"x7' 0" 2"			
		1	ALD 1' 6"x7' 0" 2" Elev:A			
		1	ALF 0" 3' 0"x7' 0"			

### Hardware for Heading#: 09A

2 EA	Continuous Hinge	780-112HD 83"		Clear	(HC-1) Hager	
2 EA	Concealed Vertical Rod Exit Device	4601CVR-0-36"x84"		US26D	(ED-4) Hager	
2 EA	Exit Device Trim	46CE-ARC		US26D	(ET-3) Hager	
2 EA	Cylinder	3902		US26D	(CY-2) Hager	
2 EA	Surface Closer	5100 HDCS		ALM	(CL-1) Hager	
2 EA	Arm	5955		ALM	(CL-2) Hager	
2 EA	Spacer	5113		ALM	(CL-7) Hager	
2 EA	Drop Plate	5110		ALM	(CL-8) Hager	
1 EA	Threshold	413S x 36"		MIL	(TH-1) Hager	
2 EA	Sweep	750S-N x 18"		MIL	(SW-3) Hager	

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

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## Heading #: 10

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
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103

1 WDD 3' 0"x6' 8" 1 3/4"  
Elev:B

1 HMF 0" 3' 0"x6' 8"  
Elev:B

### Hardware for Heading#: 10

3 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"		US26D	(HI-2) Hager	
1 EA	Cylindrical Lock Office Lock	2550 ARC		US26D	(LO-4) Hager	
1 EA	Surface Closer	5300 PSS		ALM	(CL-9) Hager	
1 EA	Arm	5926		ALM	(CL-10) Hager	
3 EA	Silencer	307D			(SI-1) Hager	

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 11

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
104		1	WDD 2' 2"x6' 8" 1 3/4" Elev:B			
		1	HMF 0" 2' 2"x6' 8" Elev:E			

### Hardware for Heading#: 11

3 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"		US26D	(HI-2) Hager	
1 EA	Cylindrical Lock Privacy Lock	2540 ARC		US26D	(LO-5) Hager	
1 EA	Wall Stop	236W		US32D	(ST-1) Hager	
3 EA	Silencer	307D			(SI-1) Hager	

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 12

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
106					20	
		1	WDD 3' 0"x6' 8" 1 3/4" Elev:B			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
107					20	
		1	WDD 3' 0"x6' 8" 1 3/4" Elev:B			
		1	HMF 0" 3' 0"x6' 8" Elev:B			
112					90	
		1	HMD 2' 0"x6' 8" 1 3/4" Elev:D			
		1	HMF 0" 2' 0"x6' 8" Elev:F			
204					90	
		1	HMD 2' 0"x6' 8" 1 3/4" Elev:D			
		1	HMF 0" 2' 0"x6' 8" Elev:F			
304					90	
		1	HMD 2' 0"x6' 8" 1 3/4" Elev:D			
		1	HMF 0" 2' 0"x6' 8" Elev:F			
404					90	
		1	HMD 2' 0"x6' 8" 1 3/4" Elev:D			
		1	HMF 0" 2' 0"x6' 8" Elev:F			

## Hardware for Heading#: 12

18 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-2) Hager
6 EA	Cylindrical Lock Passage Latch	2510 ARC	US26D	(LO-2) Hager
6 EA	Surface Closer	5300 HDS	ALM	(CL-11) Hager
6 EA	Arm	5907	ALM	(CL-12) Hager
6 EA	Gasketing	726 17'	S	(GA-3) Hager

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 13

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
A-01					20	
		5	WDD 3' 0"x6' 8" 1 3/4" Elev:B			
		5	HMF 0" 3' 0"x6' 8" Elev:B			
B-01					20	
		10	WDD 3' 0"x6' 8" 1 3/4" Elev:B			
		10	HMF 0" 3' 0"x6' 8" Elev:B			
C-01					20	
		10	WDD 3' 0"x6' 8" 1 3/4" Elev:B			
		10	HMF 0" 3' 0"x6' 8" Elev:B			
D-01					20	
		37	WDD 3' 0"x6' 8" 1 3/4" Elev:B			
		37	HMF 0" 3' 0"x6' 8" Elev:B			

### Hardware for Heading#: 13

186 EA	Hinge, Full Mortise	ECBB1100 4-1/2" x 4-1/2"	US26D	(HI-2) Hager
62 EA	Cylindrical Lock Passage Latch	2510 ARC	US26D	(LO-2) Hager
62 EA	Deadbolt	3215	US26D	(LO-6) Hager
62 EA	Surface Closer	5300 MLT	ALM	(CL-4) Hager
62 EA	Wall Stop	236W	US32D	(ST-1) Hager
62 EA	Threshold	413S x 36"	MIL	(TH-1) Hager
62 EA	Gasketing	726 17'	S	(GA-3) Hager
62 EA	Knocker/Viewer	334V	US26D	(OT-1) Hager
62 EA	Privacy Latch	277D	US26D	(OT-2) Hager

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 14

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
A-02		5	WDD 1' 6"x6' 8" 1 3/8" Elev:B			
		5	WDF 0" 1' 6"x6' 8"			
B-02		10	WDD 2' 6"x6' 8" 1 3/8" Elev:B			
		10	WDF 0" 2' 6"x6' 8"			
B-03		10	WDD 1' 6"x6' 8" 1 3/8" Elev:B			
		10	WDF 0" 1' 6"x6' 8"			
B-06		10	WDD 1' 6"x6' 8" 1 3/8" Elev:B			
		10	WDF 0" 1' 6"x6' 8"			
C-04		10	WDD 2' 0"x6' 8" 1 3/8" Elev:B			
		10	WDF 0" 2' 0"x6' 8"			
<b>Hardware for Heading#: 14</b>						
45 EA	Tubular Lock Passage Latch	3310 ARC		US26D	(LO-7) Hager	
45 EA	Door Stop	6212		US26D	(ST-2) Hager	

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 15

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
A-03		5	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		5	WDF 0" 2' 8"x6' 8"			
C-03		10	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		10	WDF 0" 2' 8"x6' 8"			
<b>Hardware for Heading#: 15</b>						
15 EA	Deadbolt	3215		US26D	(LO-6) Hager	
15 EA	Door Stop	6212		US26D	(ST-2) Hager	

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 16

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
A-04		5	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		5	WDF 0" 2' 8"x6' 8"			
A-06		5	WDD 2' 4"x6' 8" 1 3/8" Elev:B			
		5	WDF 0" 2' 4"x6' 8"			
B-04		10	WDD 3' 0"x6' 8" 1 3/8" Elev:B			
		10	WDF 0" 3' 0"x6' 8"			
B-07		10	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		10	WDF 0" 2' 8"x6' 8"			
C-02		10	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		10	WDF 0" 2' 8"x6' 8"			
D-02		37	WDD 2' 8"x6' 8" 1 3/8" Elev:B			
		37	WDF 0" 2' 8"x6' 8"			

### Hardware for Heading#: 16

77 EA	Tubular Lock Privacy Lock	3340 ARC		US26D	(LO-8) Hager
77 EA	Door Stop	6212		US26D	(ST-2) Hager

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

## Heading #: 17

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
A-05		5	WDD 4' 4"x6' 8" 1 3/8" Elev:C			
		5	WDF 0" 4' 4"x6' 8"			
A-09		1	WDD 4' 0"x6' 8" 1 3/8" Elev:C			
		1	WDF 0" 4' 0"x6' 8"			
B-05		10	WDD 4' 0"x6' 8" 1 3/8" Elev:C			
		10	WDF 0" 4' 0"x6' 8"			
C-05		10	WDD 4' 0"x6' 8" 1 3/8" Elev:C			
		10	WDF 0" 4' 0"x6' 8"			
D-03		37	WDD 4' 0"x6' 8" 1 3/8" Elev:C			
		37	WDF 0" 4' 0"x6' 8"			
D-04		37	WDD 5' 0"x6' 8" 1 3/8" Elev:C			
		37	WDF 0" 5' 0"x6' 8"			

### Hardware for Heading#: 17

200 EA	Tubular Lock Single Dummy Trim	3317 ARC		US26D	(LO-9) Hager
200 EA	Door Stop	6212		US26D	(ST-2) Hager

# Hardware Schedule

Project ID: Q26-03.27.26-01 JR Polly Lineweaver Renovation

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## Heading #: 18

<u>Opening</u>	<u>Location Description</u>	<u>Qty</u>	<u>Item Description</u>	<u>Handing</u>	<u>Label</u>	<u>Key</u>
A-07		5	Other 3' 0"x6' 8" 1 3/4" Elev:G			
		5	Other 3' 0"x6' 8" 1 3/4" Elev:G			
		5	Other 0" 6' 0"x6' 8"			

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B-08

10	Other 3' 0"x6' 8" 1 3/4" Elev:G					
10	Other 3' 0"x6' 8" 1 3/4" Elev:G					
10	Other 0" 6' 0"x6' 8"					

### Hardware for Heading#: 18

All hardware by Vinyl Door Supplier

DOCUMENT 004322 - UNIT PRICES FORM

1.1 BID INFORMATION

- A. Bidder: \_\_\_\_\_.
- B. Project Name: Glen's Fair Price Building – Adaptive Reuse
- C. Project Location: 227 North Main Street, Harrisonburg, Virginia 22802
- D. Owner: Harrisonburg Redevelopment and Housing Authority
- E. Architect: Arnold Design Studio, LLC.
- F. Architect Project Number: 2504.

1.2 BID FORM SUPPLEMENT

- A. This form is required to be attached to the Bid Form.
- B. The undersigned Bidder proposes the amounts below be added to or deducted from the Contract Sum on performance and measurement of the individual items of Work.

1.3 UNIT PRICES

- A. Unit-Price No. 1: Removal of asbestos containing floor tile and mastic.
  - 1. \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)  
per unit.

1.4 SUBMISSION OF BID SUPPLEMENT

Respectfully submitted this \_\_\_\_ day of \_\_\_\_\_, 2010.

Submitted By: \_\_\_\_\_  
(Insert name of bidding firm or corporation)

Authorized  
Signature: \_\_\_\_\_  
(Handwritten signature)

Signed By: \_\_\_\_\_  
(Type or print name)

Title: \_\_\_\_\_  
(Owner/Partner/President/Vice President)

END OF DOCUMENT 004322



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IRON0005-023 06/01/2024

	Rates	Fringes
IRONWORKER, ORNAMENTAL AND STRUCTURAL.....	\$ 37.86	25.86

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PAIN0051-033 06/01/2025

	Rates	Fringes
PAINTER: Spray Only.....	\$ 29.16	11.86

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SUVA2013-049 01/11/2016

	Rates	Fringes
BRICKLAYER.....	\$ 23.54	6.73
CARPENTER.....	\$ 14.81	2.19
ELECTRICIAN.....	\$ 19.52	5.04
IRONWORKER, REINFORCING.....	\$ 25.36	6.68
LABORER: Common or General.....	\$ 11.56	0.70
LABORER: Mason Tender - Brick...	\$ 13.41	3.15
LABORER: Mason Tender - Cement/Concrete.....	\$ 15.32	0.00
LABORER: Pipelayer.....	\$ 12.00	1.17
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 16.24	0.87
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 18.95	4.03
OPERATOR: Bulldozer.....	\$ 16.00	0.00
OPERATOR: Forklift.....	\$ 19.40	7.00
OPERATOR: Loader.....	\$ 21.28	3.17
OPERATOR: Roller.....	\$ 16.25	4.88
PAINTER (Brush and Roller).....	\$ 20.01	0.00

PIPEFITTER, Includes HVAC Pipe and Unit Installation.....	\$ 22.45	6.94
PLUMBER.....	\$ 20.80	5.66
ROOFER.....	\$ 16.17	3.73
SHEET METAL WORKER, Includes HVAC Duct Installation.....	\$ 18.38	3.30
TILE FINISHER.....	\$ 23.40	0.00
TILE SETTER.....	\$ 27.80	10.25
TRUCK DRIVER: Dump Truck.....	\$ 16.58	1.73

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.30 per

hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

#### Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

#### Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE:

UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

### Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

### State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

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## WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to [davisbaconinfo@dol.gov](mailto:davisbaconinfo@dol.gov) or by mail to:

Branch of Wage Surveys  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to [BCWD-Office@dol.gov](mailto:BCWD-Office@dol.gov) or by mail to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to [dba.reconsideration@dol.gov](mailto:dba.reconsideration@dol.gov) or by mail to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that

the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210.

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END OF GENERAL DECISION

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