919.545.2004 voice 919.545.9002 fax

<u>Chatham County Finance Office Renovation Project</u>: Addendum #1 DATE: July 31, 2020

Hobbs Architects, P.A. 159 West Salisbury Street P.O. Box 1457

Pittsboro, North Carolina 27312

Hobbs Architects, PA 159 West Salisbury Street PO Box 1457 Pittsboro, North Carolina 27312

ADDENDUM #1:

TO: All bidders of record, which have received plans and specifications for the project referred to above.

This Addendum No. 1 forms a part of the Contract Documents and modifies the original Drawings and Specifications dated June 26, 2020 as noted below. Acknowledge receipt of this addendum in the space provided on the Bid Form. Failure to do so may subject bidder to disqualification.

This addendum consists of 37 pages, 8.5 x 11 inches in sheet size.

General:

A. Bidders are reminded that the Pre-Bid Conference is mandatory for General Contractors only. A mandatory Pre-Bid Meeting will be held at the site. Due to COVID-19, the meeting times for the Pre-Bid will be staggered and scheduled with interested bidders **Monday, August 3, 2020 through Wednesday, August 5, 2020.** Hobbs Architects will coordinate the meetings and escort the attendees. <u>Masks are required for attendance.</u> The contact information is listed below for scheduling a meeting:

Hobbs Architects, PA <u>Sbrooker@hobbsarchitects.com</u> 919-545-2004

Specification Sections:

A. MBE Guidelines

• Delete MBE Guidelines for Recruitment included in the Project Manual and replace with the Minority Business Outreach Plan included in Addendum No. 1.

B. Section 01 10 00 Summary

• Delete Specification Section 01 10 00 included in the Project Manual and replace with the Specification Section 01 10 00 included in Addendum No. 1

C. Section 08 71 00 Door Hardware

• Delete Specification Section 08 71 00 for the Door Hardware included in the Project Manual and replace with the Specification Section 08 71 00 included in Addendum No. 1.

Drawings:

1. Architectural:

- o Sheet Number: A8.1
 - o Under DOOR SCHEDULE NOTES add the following:

12. Verify hardware is compatible with existing door preps and provide filler plates/cover plates as required to cover existing holes in the face of the doors from removal of door hardware that is not on this list. Fill, reveneer edges, and stain to match the faces. Notify Architect of any material that is not capable of being used or retrofitted.

Clarifications/Questions and Answers:

- 1. Question: After the walk-thru, will a Bidder's List be provided?
 - Response: Following the Pre-Bid Meetings a complete list of attendees will be documented and released through addenda through Planscope.
- 2. Question: How many evacuation signage holders will be needed?
 - Response: A total of four (4) evacuation sign holders are to be provided per Signage Schedule Note #11. The location of these signs are to be approved by the Fire Marshall during construction.
- 3. Question: In specs: Warning Stencils what are they and how many do you need?
 - Response: These red warning stencils are to be painted on the rated walls above the ceiling plane to identify any rated walls. This stencil would only be required on the wall that separates Stairwell 156 from the rest of the building. The stencil lettering is to be 2" in heights and is to identify the wall as a "1-HOUR RATED WALL". The stencils should be located to be visible from both sides of the wall.
- 4. Question: Room 240 Sign Type E, do you need four (4) Signs?
 - Response: Room 240 (Corridor) only requires one (1) Type E sign that will be located on the pull side of Door 240A to identify the "FINANCE OFFICE".
- 5. Question: Room 267 at Doors 267A and 267B Do you need two (2) Type E and two (2) Type D Signs? Where will the Type D Signs be located?
 - o Response:

One (1) Type E sign shall be provided on the push side of both door 267A and 267B.

The two (2) Type D signs at this corridor shall be located as follows: (1) at the north wall in Corridor 267, and (2) at the closest location to door 267B on the push side. Both final locations will be confirmed in-field with Architect.

- 6. Question: Room 268 Sign Type E and D what copy is to be provided on signs?
 - Response: At Stair 268 please provide a Type E sign with the copy "268 EXIT STAIR" located on the push side of door 268. Sign Type D will be located within the stair with the directional arrow positioned to confirm location of existing Area of Rescue Assistance. Sign Type B should be provided at the second floor landing and the first floor landing area.

All final copy on signs is to be determined during submittals with approval by the Owner.

- 7. Question: Does the Type A Sign go near the elevator? Please confirm if a Type B2 sign is also needed near the elevator stairway?
 - Response: The Type A sign is to be installed adjacent to the existing elevator. A new B2 sign is not required at the existing elevator location.
- 8. Question: Where does the Type K Sign go?
 - Response: Please provide one (1) of the Type K signs for this project. This sign will be located at an exterior location near the existing gang toilet rooms on the East side of the building. Architect will confirm final location in-field with the Contractor. Direction of arrow on sign will be determined by final location.

End of Addendum #1

CHATHAM COUNTY OUTREACH PLAN FOR MINORITY BUSINESSES PARTICIPATION IN BUILDING CONSTRUCTION

In accordance with G.S. 143-128.2, these guidelines establish goals for minority participation in single-prime bidding, separate-prime bidding, construction manager at risk, and alternative contracting methods, on Chatham County's building construction or repair projects in the amount of \$300,000 or more. The outreach plan shall also be applicable to the selection process of architectural, engineering, and Construction Manager-at-Risk services.

Chatham County has a current verifiable goal of 15 percent for minority participation for building construction or repair projects. The goal will be reviewed every 5 years.

SECTION A: INTENT

It is the intent of these guidelines that Chatham County, as awarding authority for building construction or repair projects, and the contractors and subcontractors performing the construction contracts awarded shall cooperate and in good faith do all things legal, proper, and reasonable to achieve the goal of 15 percent for participation by minority businesses in each building construction or repair project as required by GS 143-128.2. Nothing in these guidelines shall be construed to require contractors or awarding authorities to award contracts or subcontracts to or to make purchases of materials or equipment from minority-business contractors or minority-business subcontractors who do not submit the lowest responsible, responsive bid or bids.

SECTION B: DEFINITIONS

1. <u>Minority</u> - a person who is a citizen or lawful permanent resident of the United States and who is:

- a. Black, that is, a person having origins in any of the black racial groups in Africa;
- b. Hispanic, that is, a person of Spanish or Portuguese culture with origins in Mexico, South or Central America, or the Caribbean Islands, regardless of race;
- c. Asian American, that is, a person having origins in any of the original peoples of the Far East, Southeast Asia and Asia, the Indian subcontinent, the Pacific Islands;
- d. American Indian, that is, a person having origins in any of the original peoples of North America; or
- e. Female

2. Minority Business (MBE) - means a business:

- a. In which at least fifty-one percent (51%) is owned by one or more minority persons, or in the case of a corporation, in which at least fifty-one percent (51%) of the stock is owned by one or more minority persons or socially and economically disadvantaged individuals; and
- b. Of which the management and daily business operations are controlled by one or more of the minority persons or socially and economically disadvantaged individuals who own it.

3. <u>Socially and economically disadvantaged individual</u> - means the same as defined in 15 U.S.C. 637: Socially disadvantaged individuals are those who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities. Economically disadvantaged individuals are those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged.

4. <u>Owner</u> – County of Chatham.

5. <u>Designer</u> – Any person, firm, partnership, or corporation which has contracted with Chatham County to perform architectural or engineering work.

6. <u>Bidder</u> - Any person, firm, partnership, corporation, association, or joint venture seeking to be awarded a public contract or subcontract.

7. <u>Contract</u> - A mutually binding legal relationship or any modification thereof obligating the seller to furnish equipment, materials, or services, including construction, and obligating the buyer to pay for them.

8. <u>Contractor</u> - Any person, firm, partnership, corporation, association, or joint venture which has contracted with Chatham County to perform building construction or repair work.

9. <u>Subcontractor</u> - A firm under contract with the prime contractor or construction manager at risk for supplying materials or labor and materials and/or installation. The subcontractor may or may not provide materials in his subcontract.

SECTION C: MINORITY OUTREACH PLAN AND GUIDELINES

The following strategies may be used to encourage participation from MBEs.

- 1. Work with minority-focused and small business groups that support MBE inclusion in the solicitation of bids.
- 2. Place emphasis on the importance of soliciting certified MBE firms for subcontracting opportunities at pre-bid conferences and in the bid documents. Encourage prime contractors to solicit bids for subcontracts from MBE firms.
- 3. Provide detailed information to majority contractors concerning the bidding and good faith efforts requirements by holding meetings with the contractors.
- 4. Assess the effectiveness of the MBE program, and identify opportunities to enhance it by evaluating MBE participation and compliance and reviewing the good faith efforts provided in bid packages.
- 5. Identify subcontracting opportunities unique to each construction contract and project and target certified MBE firms that have expressed an interest in Chatham County projects. Identify these opportunities and contact interested businesses no later than 10 days prior to the bid opening and provide a list of prime contractors who plan to participate in the project.
- 6. Build new and strengthen existing business relationships through networking. Continue communicating with other North Carolina public agencies to find out how their MBE outreach programs are working and to share "best practices" and ideas to improve programs.
- 7. Enhance Chatham County's web page by including the outreach plan and guidelines, listing good faith efforts, creating links to MBE resources, and creating awareness of specific subcontracting opportunities.
- 8. Make available to minority-focused agencies a list of subcontracting opportunities when they are identified, no later than 10 days prior to the bid opening, and a list of prime bidders that subcontractors may wish to contact for subcontracting consideration.
- 9. Maintain or continue to maintain a database specifically for MBE firms and majority contractors to ensure those firms wishing to do business with Chatham County have access to up-to-date information.
- 10. Advertise upcoming bid opportunities in minority-focused media.

11. Work with architects and engineers to make subcontracting opportunities more noticeable and more easily understood by potential contractors and subcontractors.

Designer

Under the single-prime bidding, separate prime bidding, construction manager at risk, or alternative contracting method, the designer will:

- 1. Attend the scheduled pre-bid conference to explain minority business requirements to the prospective bidders.
- 2. Assist the owner to identify and notify prospective minority business prime and subcontractors of potential contracting opportunities.
- 3. Maintain documentation of any contacts, correspondence, or conversation with minority business firms made in an attempt to meet the goals.
- 4. Review jointly with the owner, all requirements of G.S. 143-128.2(c) and G.S.143-128.2(f) (i.e. bidders' proposals for identification of the minority businesses that will be utilized with corresponding total dollar value of the bid and affidavit listing good faith efforts, or affidavit of self-performance of work, if the contractor will perform work under contract by its own workforce) prior to recommendation of award.
- 5. During construction phase of the project, review documentation for contract payment to MBEs (e.g. state form "Appendix E: MBE Documentation for Contract Payment" <u>http://interscope2.doa.state.nc.us/Guidelines/MBE/MBGuidelines2002R.pdf</u>) for compliance with minority business utilization commitments. Submit this form with monthly pay applications to the Owner.

Prime Contractor(s), CM at Risk, and Its First-Tier Subcontractors

Under the single-prime bidding, the separate-prime biding, construction manager at risk, and alternative contracting methods, contractor(s) will:

- 1. Attend the scheduled pre-bid conference.
- 2. Identify or determine those work areas of a subcontract where minority businesses may have an interest in performing subcontract work.
- 3. During the bidding process, comply with the owner's requirements listed in the proposal for minority participation.
- 4. Identify on the bid the minority businesses that will be utilized on the project with corresponding total dollar value of the bid and affidavit listing good faith efforts as required by G.S. 143-128.2(c) and G.S. 143-128.2(f).
- 5. Make documentation showing evidence of implementation of Prime Contractor, CM-at-Risk and First-Tier Subcontractor responsibilities available for review by Chatham County, upon request.
- 6. Upon being named the apparent low bidder, the bidder shall provide one of the following: (1) an affidavit that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable goal; or (2) if the percentage is not equal to the applicable goal, then documentation of all good faith efforts taken to meet the goal. The documentation must include evidence of all good faith efforts that were implemented including any advertisements, solicitations, and evidence of other specific actions demonstrating recruitment and selection of minority businesses for participation in the contract. Failure to comply with these requirements is grounds for rejection of the bid and award to the next lowest responsible and responsive bidder.
- 7. The contractor(s) shall identify the name(s) of minority business subcontractor(s) and corresponding dollar amount of work on the schedule of values.

- The contractor(s) shall submit with each monthly pay request(s) and final payment(s) documentation for contract payment to MBEs (e.g. state form "Appendix E: MBE Documentation for Contract Payment" <u>http://interscope2.doa.state.nc.us/Guidelines/MBE/MBGuidelines2002R.pdf</u>) for designer's review.
- 9. During the construction of a project, at any time, if it becomes necessary to replace a minority business subcontractor, immediately advise the owner in writing, of the circumstances involved. The prime contractor shall make a good faith effort to replace a minority business subcontractor with another minority business subcontractor.
- 10. If during the construction of a project additional subcontracting opportunities become available, the contractor shall make a good faith effort to solicit sub-bids from minority businesses.

Minority Business Responsibilities <u>Certification</u>

While minority businesses are not required to become certified in order to participate in the Chatham County's building construction or repair projects, it is recommended that they become certified. The County's participation goal is only counted for registered certified minority firms.

Effective July 1, 2009, HUB firms must be certified through the HUB Office to be listed in the database to be counted by local and state entities for HUB participation and the reporting purposes. The HUB Office partnered with our local M/WBE offices to develop and implement SWUC with input and feedback from HUB firms, prime contractors and HUB resource advocates. With the HUB Office facilitating the certification process, local M/WBE Offices can focus on providing resources and business development.

How to Apply for HUB Certification under the SWUC Program

If you are interested in becoming a certified HUB firm or recertifying as a HUB firm, you must register in the electronic Vendor Portal (eVP) and request HUB Certification.

- 1. Go to https://ncadmin.nc.gov/businesses/hub/hub-certification
- 2. To start the registration process please click here: <u>https://vendor.ncgov.com/vendor/login</u>
- 3. Next, create a vendor log-in: , <u>https://vendor.ncgov.com/vendor/login</u>
- 4. To set up your vendor login; you need to provide your EIN or SSN number
- 5. Follow the application process once in the vendor portal, and provide all information needed to complete the certification.

Other Responsibilities

Minority businesses that are contacted by owners or bidders must respond promptly whether or not they wish to submit a bid.

SECTION D: MINIMUM COMPLIANCE REQUIREMENTS

All written statements or affidavits made by the bidder shall become a part of the agreement between the Contractor and Chatham County for performance of the contract. Failure to comply with any of these statements, affidavits, or with the minority business guidelines shall constitute a breach of the contract. A finding by Chatham County that any information submitted either prior to award of the contract or during the performance of the contract is inaccurate, false, or incomplete shall also constitute a breach of the contract. Any such breach may result in termination of the contract in accordance with the termination provisions contained in the contract. It shall be solely at the option of Chatham County whether to terminate the contract for breach.

In determining whether a contractor has made good faith efforts, <u>Chatham County</u> will evaluate all efforts made by the Contractor and will determine compliance in regard to quantity, diligence, and results of these efforts. Contractors are required to <u>earn at least 50 points for good faith</u> <u>efforts</u>. Failure to file a required affidavit or documentation demonstrating that the contractor made the required good faith effort, is grounds for rejection of the bid. Good faith efforts include:

- 1. Contacting minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor or available on State or local government maintained lists at least 10 days before the bid or proposal date and notifying them of the nature and scope of the work to be performed. (10 points)
- 2. Making the construction plans, specifications, and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bid or proposals are due. (10 points)
- 3. Breaking down or combining elements of work into economically feasible units to facilitate minority participation. (15 points)
- 4. Working with minority trade, community, or contractor organizations identified by the Office for Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses. (10 points)
- 5. Attending any pre-bid meetings scheduled by the public owner. (10 points)
- 6. Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors. (20 points)
- Negotiating in good faith with interested minority businesses and not rejecting them as unqualified without sound reasons based on their capabilities. Reasons for rejection of a minority business based on lack of qualification should be documented in writing. (15 points)
- 8. Providing assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisting minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit. (25 points)
- 9. Negotiating joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible. (20 points)

10. Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash flow demands. (20 points)

SECTION E: DISPUTE RESOLUTION PROCEDURES

Pursuant to G.S. 143-128 (f1), all disputes involving contractors on a building construction or repair project with Chatham County shall be resolved pursuant to Chatham County's **Dispute Resolution Policy**.

SECTION F: In addition to these guidelines, there will be issued with each construction bid package provisions for providing minority business participation in the Chatham County projects.

Forms

Identification of Minority Business Participation Affidavit A-Listing of the Good Faith Efforts Affidavit B- Intent to Perform Contract with Own Workforce. Affidavit C-Portion of the Work to be Performed by Minority Firms Affidavit D-Good Faith Efforts

Links

North Carolina Department of Admin Hub Opportunities: <u>https://ncadmin.nc.gov/businesses/hub</u> (Includes registration for certification)

Office for Historically Underutilized Businesses - https://ncadmin.nc.gov/businesses/hub/

Historically Underutilized Businessess Job Opportunities:

https://ncadmin.nc.gov/businesses/hub/events

State Construction Office - http://www.nc-sco.com/

State of North Carolina Interactive Purchasing System (all categories)-https://www.ips.state.nc.us/ips/

*Construction Services http://www.ips.state.nc.us/ips/bidlist.asp?category=99&name=Construction+Services&de partment= *Design Serviceshttp://www.ips.state.nc.us/ips/bidlist.asp?category=100&name=Design+Services&depart ment=

SECTION 01 10 00 – SUMMARY (RE-ISSUED IN ADDENDUM #1)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Work covered by the Contract Documents
 - 2. Type of the Contract
 - 3. Work by Owner
 - 4. Liquidated Damages
 - 5. Work phases
 - 6. Access to Site
 - 7. Owner's occupancy requirements
 - 8. Work restrictions
 - 9. Specification formats and conventions
- B. Related Sections include the following:
 - 1. Division 01 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: 2020 Renovations to the Chatham County Courthouse Annex Building West Side
 - 1. Project Location: 12 East Street, Pittsboro, North Carolina 27312
- B. Owner: The County of Chatham, 12 East Street, Pittsboro, NC 27312
 - 1. Owner's Representative: Mr. Brian Stevens, Chatham County Facilities Director
- C. Architect: Hobbs Architects, PA, 159 West Salisbury Street, Pittsboro, NC 27312
- D. Architect's Consultants: The Architect has retained the following design professionals who have prepared designated portions of the Contract Documents:
 - 1. Mechanical, Plumbing and Fire Protection Engineering: En-Tech Engineering, PA; Benjamin Rollins, PO Box 11527, Goldsboro, NC 27532 (919) 778-9064.

- E. Electrical and Fire Alarm Engineering: En-Tech Engineering, PA; James Ham, PO Box 11527, Goldsboro, NC 27532 (919) 778-9064
- F. Contractor: To be determined by Chatham County Commissioners by award of contract.
- G. The Work consists of the following:
 - 1. Work includes interior renovations of the Finance Office of the Chatham County Government Annex Building of approximately +/- 4,000 sf and exterior improvements to the West side of the building. Interior renovation work includes selective demolition, new interior framing and ceilings, and modifications to the existing mechanical systems, reuse and rework of the existing electrical systems, new plumbing fixtures, and new finishes and millwork. Exterior Improvements include soffit and window repairs/or replacements, repainting of existing steel, and resealing concrete walks. Building portions will remain occupied during construction. <u>Server room must remain in</u> <u>operation during construction</u>.

1.4 TYPE OF CONTRACT

A. Project will be constructed under a single prime contract. (See draft construction AIA construction contract in Project Manual)

1.5 WORK BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.
- B. Preceding Work: Owner will perform the following construction operations at Project site. Those operations are scheduled to be substantially complete before work under this Contract begins.
- C. Subsequent Work: Owner will perform the following additional work at site after Substantial Completion. Completion of that work will depend on successful completion of preparatory work under this Contract.
 - 1. Installation of A/V equipment.
 - 2. Relocation or procurement of Furniture.

1.6 LIQUIDATED DAMAGES

A. The parties agree that it would be extremely difficult and impracticable under the presently known and anticipated facts and circumstances to ascertain and fix the actual damage the Owner would incur should the Contractor delay in achieving Substantial Completion within the time allowed in this Contract, and accordingly the parties hereby agree that if Contractor fails to so achieve Substantial Completion by the time established for Substantial Completion, then

Owner's remedy for such delay shall be to recover from Contractor the sum of Five Hundred Dollars (\$500.00) for each day up to fifteen (15) calendar days that Substantial Completion is delayed.

- B. It is further agreed between the parties that should the Contractor delay in achieving Substantial Completion by more than fifteen (15) days after the time allowed by this Contract, the liquidated damages set forth above would unfairly limit the recovery by the Owner and would not be a reasonable estimate of actual damages for such extended delay. Therefore, the parties agree that should the Contractor delay Substantial Completion by more than fifteen (15) days, the Owner may recover additional liquidated damages in the amount of One Thousand Dollars (\$1,000) for each calendar day Substantial Completion is further delayed.
- C. Length of Construction established as the time from approving Notice to Proceed to Substantial Completion is to be 6 months or no longer than a total of 180 days.

1.7 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to building and site contract limits as indicated on the drawings.
 - 2. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, students, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.8 OWNER'S OCCUPANCY REQUIREMENTS

- A. General: To be determined at pre-bid.
- B. Access: To be determined at pre-bid.

1.9 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7 a.m. to 6 p.m., Monday through Friday, unless otherwise indicated.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Architect not less than two days in advance of proposed utility interruptions.
 - 2. Obtain Architect's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Architect not less than two days in advance of proposed disruptive operations.
 - 2. Obtain Architect's written permission before proceeding with disruptive operations.
- E. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.
- F. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
 - 1. Maintain list of approved screened personnel with Owner's representative.

1.10 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 50-division format and CSI/CSC's "MasterFormat" numbering system.
 - 1. Section Identification: The Specifications use Section numbers and titles to help crossreferencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
 - 2. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred, as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
 - 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for

clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 10 00

SECTION 08 71 00 – DOOR HARDWARE RE-ISSUED IN ADDENDUM #1

PART 1 – GENERAL

- 1.01 SUMMARY
 - A. Section includes furnishing, installation and commissioning of mechanical, electro-mechanical, and batteryoperated door hardware for doors specified in "Hardware Sets" and required by actual conditions: including screws, bolts, expansion shields, electrified door hardware, and other devices for proper application of hardware.
 - B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
 - C. Related Divisions:
 - 1. Section 01 21 00 Allowances (See Allowance No. 3)
 - 2. Section 01 23 00 Alternates (See Add Alternate G-6)
 - 3. Division 07 Joint Sealants
 - 4. Division 08 Openings
 - 5. Division 09 Finishes
 - 6. Division 26 Electrical
 - 7. Division 28 Electronic Safety And Security

1.02 REFERENCES

- A. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI):
 - 1. ANSI/BHMA A156.1 Butts & Hinges (2016)
 - 2. ANSI/BHMA A156.3 Exit Devices (2014)
 - 3. ANSI/BHMA A156.4 Door Controls Closers (2013)
 - 4. ANSI/BHMA A156.6 Architectural Door Trim (2015)
 - 5. ANSI/BHMA A156.7 Template Hinge Dimensions (2016)
 - 6. ANSI/BHMA A156.8 Door Controls Overhead Stops and Holders (2015)
 - 7. ANSI/BHMA A156.13 Mortise Locks & Latches (2012)
 - 8. ANSI/BHMA A156.14 Sliding & Folding Door Hardware (2013)
 - 9. ANSI/BHMA A156.16 Auxiliary Hardware (2013)
 - 10. ANSI/BHMA A156.18 Materials & Finishes (2016)
 - 11. ANSI/BHMA A156.19 Power Assist & Low Energy Power Operated Doors (2013)
 - 12. ANSI/BHMA A156.21 Thresholds (2014)
 - 13. ANSI/BHMA A156.22 Door Gasketing Systems (2012)
 - 14. ANSI/BHMA A156.25 Electrified Locks (2013)
 - 15. ANSI/BHMA A156.28 Keying Systems (2013)
- B. International Code Council/American National Standards Institute (ICC/ANSI)/ADA:
 - 1. ICC/ANSI A117.1 Standards for Accessible and Usable Buildings and Facilities 2006
- C. Underwriters Laboratories, Inc. (UL):
 - 1. UL 10C Positive Pressure Fire Test of Door Assemblies.
 - 2. UL 1784 Air Leakage Test of Door Assemblies.
 - 3. UL 294 Access Control System Units

- D. Door and Hardware Institute (DHI):
 - 1. DHI Publications Keying Systems and Nomenclature (1989).
 - 2. DHI Publication Abbreviations and Symbols.
 - 3. DHI Publication Installation Guide for Doors and Hardware.
 - 4. DHI Publication Sequence and Format of Hardware Schedule (1996).
- E. National Fire Protection Agency (NFPA):
 - 1. NFPA 70 National Electrical Code 2008
 - 2. NFPA 80 Standard for Fire Doors and Other Opening Protectives 2007
 - 3. NFPA 101 Life Safety Code 2006
 - 4. NFPA 105 Standard for the Installation of Smoke Door Assemblies 2007

1.03 SUBMITTALS

- A. Submit in accordance with Conditions of the Contract and Division 1 Administrative Requirements and Submittal Procedures Section.
- B. Shop Drawings:
 - 1. Organize hardware schedule in vertical format as illustrated in DHI Publications Sequence and Formatting for the Hardware Schedule. Include abbreviations and symbols page according to DHI Publications Abbreviations and Symbols. Complete nomenclature of items required for each door opening as indicated.
 - 2. Coordinate final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of hardware.
 - 3. Architectural Hardware Consultant (AHC), as certified by DHI, who will affix seal attesting to completeness and correctness, including the review of the hardware schedule prior to submittal.
- C. Submit manufacturer's catalog sheet on design, grade, and function of items listed in hardware schedule. Identify specific hardware item per sheet, provide an index, and cover sheet.
- D. Templates:
 - 1. Upon final approval of the architectural hardware schedules, submit one set of complete templates for each hardware item to the door manufacturers, frame manufacturers, and the installers. Date and index these 8-1/2 inch x 11 inch papers in a three ring binder, including detailed lists of the hardware location requirements for mortised and surface applied hardware within fourteen days of receiving approved door hardware submittals.
- E. Electrified Hardware: Provide electrical information to include voltage and amperage requirements for electrified door hardware and description of operation.
 - 1. Description of operation for each electrified opening to include description of component functions including location, sequence of operation and interface with other building control systems.
 - 2. Wiring Diagrams: Detail wiring for power, signal, and control system and differentiate between manufacturers installed and field-installed wiring. Include the following:
 - a. System schematic.
 - b. Point to point wiring diagram.
 - c. Riser diagram.
 - d. Elevation of each door.
 - 3. Detail interface between electrified door hardware and fire alarm, access control, security, and building control systems.
- F. Upon door hardware submittal approval, furnish for each electrified opening, three copies of point to point diagrams.

- G. Closeout Submittals: Submit to Owner in a three-ring binder or CD if requested.
 - 1. Warranties.
 - 2. Maintenance and operating manual.
 - 3. Maintenance service agreement.
 - 4. Record documents.
 - 5. Copy of approved hardware schedule.
 - 6. Copy of approved keying schedule with bitting list.
 - 7. Door hardware supplier name, phone number, and fax number.

1.04 QUALITY ASSURANCE

- A. Listed and Labeled electrified door hardware as defined in NFPA 70, Article 100, by a testing agency acceptable to authority having jurisdiction.
- B. Hardware supplier will 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.
- C. Door hardware conforming to ICC/ANSI A117.1: Handles pulls, latches locks and operating devices: Shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist.
- D. Fire Rated Door Assemblies: Where fire-rated door assemblies are indicated, provide door hardware rated for use in assemblies complying with NFPA 80 that are listed and/or labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to UL 10C, unless otherwise indicated.
- E. Fire Door Inspection: Prior to receiving certificate of occupancy have fire rated doors inspected by an independent Certified Fire and Egress Door Assembly Inspector (FDAI), as certified by Intertek (ITS), a written report be submitted to Owner and Contractor. Doors failing inspection must be adjusted, replaced or modified to be within appropriate code requirements.
- F. Smoke and Draft Control Door Assemblies: Where smoke and draft control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
- G. Door hardware certified to ANSI/BHMA standards as noted, participate and be listed in BHMA Certified Products Directory.
- H. Substitution request: 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. Approval of request is at the discretion of the owner, architect, and their designated consultants and will be addressed via addendum prior to bid date.

- I. Meetings: Comply with requirements in Division 1 Section "Project Meetings."
 - 1. Low-voltage Coordination Meeting
 - a. Prior to furnishing door hardware submittals, convene a low-voltage coordination meeting. Participants required to attend: Contractor, installer, material supplier, manufacturer representatives, electrical contractor, security consultant, and fire alarm consultant.
 - b. Review sequence of operation for each opening with electrified hardware to ensure that every opening functions in the proper manner for the Owner's use.
 - c. Discuss the types of electrified door hardware, inspection, and electrical roughing-in and other preparatory work performed by other trades.
 - d. Verify wire quantities, wire types, wire sizes, conduit sizes, and locations including if the power supplies will be centrally located or if they will be located near each opening.
 - e. Coordinate the door hardware, power supplies, back-up power requirements, access control components, fire alarm interfaces, elevator controls, and related building systems have all proper and necessary components to interface and operate correctly.
 - 2. Keying Meeting
 - a. Within fourteen days of receipt of approved door hardware submittals, contact Owner with representative from hardware supplier to establish a keying conference. Verify keyway, visual key identification, number of master keys and keys per lock. Provide keying system per Owner's instructions.
 - 3. Pre-installation Meeting
 - a. Convene meeting within fourteen days of receipt of approved door hardware submittals. Participants required to attend: Contractor, installer, material supplier, manufacturer representatives, electrical contractor, security consultant, and fire alarm consultant.
 - b. Include in-conference decisions regarding proper installation methods and procedures for receiving and handling hardware.
 - c. Review all system, elevation, and point-to-point drawings to ensure that all necessary components are provided and detailed.
 - d. Review and finalize construction schedule and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
- J. Installer Qualifications: Specialized in performing installation of this Section and have five years minimum documented experience.
- K. Hardware listed in 3.07 Hardware Schedule is intended to establish minimum level of design, type, function and grade of hardware to be used.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Provide clean, dry and secure room for hardware delivered to Project but not yet installed. Shelve hardware off of the floor and with larger items of hardware being stored on wooden 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.
- B. Furnish hardware that is not bulk packed with each unit marked and numbered in accordance with approved finish hardware schedule. Include 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.
- C. Pack each item complete with necessary parts and fasteners in manufacturer's original packaging.

- D. Deliver architectural 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.
- E. 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."
- F. Waste Management and Disposal: Separate waste materials for use or recycling in accordance with Division 1.

1.06 WARRANTY

- A. General Warranty: Owner may have under provisions of the Contract Documents and be an addition and run concurrently with other warranties made by Contractor under requirements of the Contract documents.
- B. Special Warranty: Warranties specified in this article will not deprive Owner of other rights.
 - 1. Ten years for manual door closers.
 - 2. Five years for mortise, auxiliary and bored locks.
 - 3. Five years for exit devices.
 - 4. One year for electromechanical door hardware.
- C. Replace or repair defective products during warranty period in accordance with manufacturer's warranty at no cost to Owner. There is no warranty against defects due to improper installation, abuse, and failure to exercise normal maintenance.
- D. 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 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 from 36" wide up to 42" wide and up to 1-3/4" thick provide hinges with a minimum thickness of .145" and a minimum of 4-1/2" in height.
 - c. For doors from 42" wide up to 48" wide and up to 1-3/4" thick provide hinges with a minimum thickness of .180" and a minimum of 5" in height.
 - d. Doors greater than 1-3/4" thick provide hinges with a minimum thickness of .180" and a minimum of 5" in height.
 - e. Width of hinge is to be minimum required to clear surrounding trim.

- 2. Base material unless otherwise indicated in hardware sets:
 - a. Exterior Doors: 304 Stainless Steel, Brass or Bronze material.
 - b. Interior Doors: Steel material.
 - c. Fire Rated Doors: Steel or 304 Stainless Steel materials.
 - d. Stainless Steel ball bearing hinges 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.
 - e. Dutch doors provide 4 hinges.
- 4. Hinge design and options unless otherwise indicated in hardware sets:
 - a. Hinges are to be of a square corner five-knuckle design, flat button tips and have ball bearings unless otherwise indicated in hardware sets.
 - b. Out-swinging exterior and out-swinging access controlled doors 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. Electric Through-Wire (ETW) to have appropriate number of wires to transfer power through door frame to door for proper connection of finish hardware and certified to handle an amperage rating of 3.5AMPS/continuous duty with 16.0AMPS/intermittent duty.
 - e. When shims are necessary to correct frame or door irregularities, provide metal shims only.
- 5. Acceptable Manufacturers:

	Standard Weight	Heavy Weight
Hager	BB1279/BB1191	BB1199
Ives		
McKinney		

2.02 LOCKS AND LATCHES

- 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 A156.13 Series 1000 Certified to Grade 1 for Operational and Security.
 - 2. UL/cUL Labeled and listed 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.
 - 4. 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. Lock cases from fully wrapped, 12 gauge steel, zinc dichromate for corrosion resistance.
- 2. Non-handed, field reversible without opening lock case.
- 3. Break-away spindles to prevent unlocking during forced entry or vandalism.
- 4. Levers, zinc cast, forged brass or stainless steel and plated to match finish designation in hardware sets.
- 5. Sectional Roses, solid brass or stainless steel material and have a minimum diameter of 2-7/16".
- 6. Armor fronts, self-adjusting to accommodate a square edge door or a standard 1/8" beveled edge door.
- E. Latch and Strike:

- 1. Stainless steel latch bolt with minimum of 3/4" throw and deadlocking for keyed and exterior functions.
- 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.
- 3. Deadbolts to be 1-3/4" total length with a minimum of a 1" throw and 3/4" internal engagement when fully extended and made of stainless steel material.

F. Electrified Locks

- 1. Fail-Safe (power lock): Outside trim is locked when power is applied and unlocked when power is removed. Lockset will unlock in the event of a power failure (EL).
- 2. Fail-Secure (power unlock): Outside trim is locked when there is no power and unlocked when power is applied. Lockset will be locked in the event of a power failure (EU).
- G. Acceptable Manufacturers:

Hager	3800 Series with WTN ILever
Best	45H Series with 3H Lever
Corbin/Russwin	ML2000 Series WithLWA Lever
Schlage	L Series with 03A Lever

2.03 EXIT DEVICES

- 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. Latchbolts:
 - 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. Electric Modifications:
 - 1. Motorized Latch Retraction (MLR): An electric motor retracts the latch bolt for momentary or maintained periods of time.
- F. Acceptable Manufactures:

Hager	4600 Series
Von Duprin	
Sargent	
Precision	

2.04 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 tumbler type, AS DIRECTED BY OWNER.
- D. Keying:
 - 1. Provide a new factory registered key system or key into Owner's existing 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. Provide construction keyed cylinders as required per the keying meeting.
- E. Acceptable Manufacturers:

AS I	DIRECTED BY OWNER		

2.05 PUSH/PULL BARS

- A. Pull Bar Sets: 1" round bar stock with 2 1/2" clearances from face of door.
- B. Acceptable Manufacturers:

Hager	H13J
Ives	
Trimco	

2.06 CLOSERS

- 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
Corbin/Russwin	DC8200 Series

2.07 LOW ENERGY POWER OPERATORS

A. Low energy power operators of one manufacturer as listed for continuity of design and consideration of warranty.

- B. Products to be certified and listed by the following:
 - 1. Power Assist and Low Energy Power Operated Doors: ANSI/BHMA A156.19.
 - 2. ADA Complaint ANSI A117.1.
- C. Materials and Design:
 - 1. Self-contained electrical control unit, including necessary transformers, relays, rectifiers, and other electronic components for proper operation, switching and control of door up to 350 lbs. and also include time delay for normal cycle.
 - 2. On pairs of doors, either door to be opened manually without the other door opening.
 - 3. Operates as a mechanical closer if power is disconnected. Forces consistent with ANSI A117.1 and ANSI A156.19.

- 4. Provide delay switches for motor activation, exit device latch retraction interfacing and hold open times. Hold open times to be adjustable from 1 second to continuous seconds.
- 5. Adjustable vestibule sequencing input for operation of two or more units. Specify 2-659-0240.
- 6. Adjustable powered swing degree from 80 degrees to 110 degrees.
- 7. Integral obstruction detection for closing and opening cycle.
- 8. Adjustable built-in stop, set from 80 degrees maximum to 180 degrees manual swing.
- 9. When in "blow open" operation for smoke ventilation, operator will stay in the open position when loss of power.
- 10. Boost to close selectable on/off switch.
- D. Signage: Provide signage in according to the requirements of ANSI/BHMA A156.19.
- E. Acceptable Manufacturers:

Hager	8300 Series
LCN	4600 Series

- F. Actuators:
 - 1. Opening cycle activated by pressing switches with international symbol of accessibility and "PUSH TO OPEN" engraved on faceplate.
 - 2. Switches installed in standard 2-gang electrical wall box and placed in a location in compliance with ANSI A117.1.
 - 3. Wireless actuators optional.
 - 4. Provide bollards as required where a suitable wall mount is not possible.
- G. Acceptable Manufacturers:

Hager	
MS Sedco	
LCN	

2.08 PROTECTIVE TRIM

- A. Protective trim of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Size of protection plate: single doors, size two inches less door width (LDW) on push side of door, and one inch less door width on pull side of door. For pairs of doors, size one inch less door width (LDW) on push side of door, and 1/2 inch on pull side of door. Adjust sizes to accommodate accompanying hardware, such as, edge guards, astragals and others.
 - 1. Kick Plates 10" high or sized to door bottom rail height.
 - 2. Mop Plates 4" high.
 - 3. Armor Plates 36" high.
- C. Products to be certified and listed by the following:
 - 1. Architectural Door Trim: ANSI/BHMA A156.6.
 - 2. UL.
- D. Material and Design:
 - 1. 0.050" gage stainless steel.

- 2. Corners square, polishing lines or dominant direction of surface pattern so they run across door width of plate.
- 3. Bevel top, bottom, and sides uniformly leaving no sharp edges.
- 4. Countersink holes for screws. Space screw holes so they are no more than eight inches CTC, along a centerline not over 1/2" in from edge around plate. End screws maximum of 0.53" from corners.
- E. UL label stamp required on protection plates when top of plate is more than 16 inches above bottom of door on fire rated openings. Verify door manufacturer's UL listing for maximum height and width of protection plate to be used.
- F. Acceptable Manufacturers:

Hager	190S
Trimco	
Ives	

2.09 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
Ives		
Trimco		

- E. Overhead Stops and Holders: Provide overhead stops and holders for doors that open against equipment, casework sidelights and other objects that would make wall stops/holders and floor stops/holders inappropriate. Provide sex bolt attachments for mineral core wood door applications.
- F. Products to be certified and listed by the following:
 - 1. Overhead Stops and Holders: ANSI/BHMA A156.8 Grade 1.

G. Acceptable Manufacturers:

	Heavy Duty Surface	
Hager	7000 SRF Series	
Glynn Johnson	90 SRF Series	
Sargent	590 Series	

2.10 MODULAR ACCESS CONTROL POWER SUPPLIES

- A. Power supplies 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 Listed.

C. Design:

- 1. Use with modular access control systems.
- 2. Field selectable filtered and regulated 12 VDC or 24 VDC constant voltage.
- 3. 1, 2, 4, and 6 AMP load capacities . Match the power supply amperage to the total load of the opening /system plus an additional thirty percent to cover line drop, as well as possible expansion.
- 4. Circuit breaker protected AC input voltage, secondary output PTC protected.
- 5. Fire alarm input provides simultaneous release of fail-safe locks and holders.
- 6. Interface relay.
- 7. LED status indicators provide information regarding AC input, DC output, and battery backup status.
- 8. Separate inputs for activation switch on entry and egress and ingress side of opening.
- 9. 5 amp hour battery backup.
- 10. Input 115 VAC (230 VAC optional).
- 11. Optional dual 12 VDC or 24 VDC output.
- 12. Optional power supply monitor module to monitor power supply status, A/C power, and D/C output and battery Status
- D. Include optional modules as required to properly interface, control, and sequence the hardware with the access control system.

E. Acceptable Manufacturer:

Hager	2908	1 Amp
Von Duprin		

2.11 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 7 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	5208
National Guard	
Reese	
Zero	

2.12 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	881S	726
National Guard		
Reese		
Zero		

2. Door Bottom Sweeps:

Hager	770SV
NatonalGusard	
Reese	
Zero	

3. Overhead Drip Guard

Hager	810S
Natonal Guard	
Reese	
Zero	

2.13 SLIDING DOOR HARDWARE

- A. Sliding door hardware of one manufacturer as listed for continuity of design and consideration of warranty.
- B. Sliding Door Hardware: Provide complete sets of rails, hangers, supports, bumpers, floor guides, and accessories indicated.
- C. Standards: Manufacturer conforms to:
 - 1. Sliding Door Hardware: ANSI/BHMA A156.14.
- D. Wall Mounted Fascia: Rated for doors weighing up to 250 lbs.
- E. Acceptable Manufacturers:

		Wall Mounted
Hager		9710
Lawrence		
K.N. Crowder		

2.14 SILENCERS

- A. Where smoke, light, or weather seal are not required, provide three silencers per single door frame, two per double door frame and four per Dutch door frame.
- B. Products to be certified and listed by the following:1. Auxiliary Hardware: ANSI/BHMA A156.16
- C. Acceptable Manufacturers:

	Hollow Metal Frame	
Hager	307D	
Rockwood		
Trimco		

2.15 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 Incorporated	
Key Control	

2.16 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 door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify Architect via a prepared written report and endorsed by Installer of any discrepancies between the door schedule, door types, drawings and scheduled hardware. Report will have a list of 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 manufactures 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. ANSI/BHMA A156.115 Hardware Preparation in Steel Doors and Steel Frames
 - 5. ANSI/BHMA A156.115W hardware Preparation in Wood Doors with Wood or Steel Frames
 - 6. DHI Publication Installation Guide for Doors and Hardware
 - 7. Approved shop drawings
 - 8. Approved finish hardware schedule
- B. Install soffit mounted gaskets prior other soffit mounted hardware to provide a continuous seal around the perimeter of the opening without cutting or notching.
- C. Install door closers so they are on the interior of the room side of the door. Stairwell doors will have closers mounted on the stair side and exterior doors will be mounted on the interior side of the building.
- D. In drywall applications provide blocking material of sufficient type and size for hardware items that mount directly to the wall.
- E. Locate wall mounted bumper to contact the trim of the operating trim.
- F. Mount mop and kick plates flush with the bottom of the door and centered horizontally on the door.
- G. Set thresholds for exterior, and acoustical doors at sound control openings in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants" forming a tight seal between threshold and surface to which set.

- H. Anchor all components firmly into position and use anchoring devices furnished with the hardware item, unless otherwise specified.
- I. Do not install surface mounted items until finishes have been completed on substrates involved. Set unit level, plumb and true to line location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

3.03 FIELD QUALITY CONTROL

A. Material supplier to schedule final walk through to inspect hardware installation ten (10) business days before final acceptance of Owner. Material supplier will provide a written report detailing discrepancies of each opening to General Contractor within seven (7) calendar days of walk through.

3.04 ADJUSTMENT, CLEANING, AND DEMONSTRATING

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

3.05 PROTECTION

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

3.06 HARDWARE SET SCHEDULE

- A. Intent of Hardware Groups
 - 1. Should items of hardware not specified be required for completion of the Work, furnish such items of type and quality comparable to adjacent hardware and appropriate for service required.
 - 2. Where items of hardware aren't correctly specified and are required for completion of the Work, a written statement of such omission, error, or other discrepancy is required to be submitted to Architect, prior to date specified for receipt of bids for clarification by addendum; or, furnish such items in the type and quality established by this specification, and appropriate to the service intended.
- B. Guide: Door hardware items have been placed in sets which are intended to be a guide of design, grade, quality, function, operation, performance, exposure, and like characteristics of door hardware, and may not be complete. Provide door hardware required to make each set complete and operational.
- C. Hardware schedule does not reflect handing, backset, method of fastening, and like characteristics of door hardware and door operation.
- D. Review door hardware sets with door types, frames, sizes and details on drawings. Verify suitability and adaptability of items specified in relation to details and surrounding conditions.

Hardware Sets

SET #1 NOT USED

SET #2

Doors: 258

HA
HA

NOTE: PERMANENT CYLINDER AS REQUIRED BY OWNER

Card Reader by Security Contractor

Description of operation: Door is normally closed and secure, Access by key leaves trim in locked position Upon proper credential validation, entry is permitted Free egress all times Door remains closed and locked upon power failure

SET #3

Doors: 263, 265

BB1279 4 1/2 X 4 1/2	US26D	HA
3840 SECT WLM	US26D	HA
5100	ALM	HA
190S 10" x 2" LDW	US32D	HA
190S 4" x 1" LDW	US32D	HA
232W/236W (as required)	US32D	HA
307D	GREY	HA
	3840 SECT WLM 5100 190S 10" x 2" LDW 190S 4" x 1" LDW 232W/236W (as required)	3840 SECT WLM US26D 5100 ALM 190S 10" x 2" LDW US32D 190S 4" x 1" LDW US32D 232W/236W (as required) US32D

SET #4

Doors: 252

3 Hinge(s)	BB1279 4 1/2 X 4 1/2	US26D	HA
1 Lockset	3870 SECT WLM	US26D	HA
1 Closer	5100	ALM	HA
1 Kick Plate	190S 10" x 2" LDW	US32D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA
1 Seal	726 x LAR	S	HA

NOTE: PERMANENT CYLINDER AS DIRECTED BY OWNER

SET #5

Doors: 241, 242, 243, 244, 245, 249, 250, 251, 255, 256, 259, 260, 262, 264

3 Hinge(s)	BB1279 4 1/2 X 4 1/2	US26D	HA
1 Lockset	3850 SECT WLM	US26D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA
1 Seal	726 x LAR	S	HA

NOTE: PERMANENT CYLINDER AS DIRECTED BY OWNER

SET #6

Doors: 257

3 Hinge(s)	BB1279 4 1/2 X 4 1/2	US26D	HA
1 Lockset	3850 SECT WLM	US26D	HA
1 Overhead Stop	7016 SRF	ALM	HA
1 Seal	726 x LAR	S	HA

NOTE: PERMANENT CYLINDER AS DIRECTED BY OWNER

SET #7 NOT USED

SET #8

Doors: 156

2 Hinge(s)	BB1279 4 1/2 x 4 1/2 NRP	US26D	HA
1 Hinge	BB1279 4 1/2 X 4 1/2 ETW-4	US26D	HA
1 Electrified Lockset	3880ELEU SECT WLM	US26D	HA
1 Closer	5100	ALM	HA
1 Kick Plate	190S 10" x 2" LDW	US32D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA
1 Seal	726 x LAR	S	HA
1 Power Supply	2908		HA
1 Access Control Module	2-679-0704		HA

NOTE: PERMANENT CYLINDER AS DIRECTED BY OWNER

Card Reader by Security Contractor

Description of operation: Door is normally closed and secure, Access by key leaves trim in locked position Upon proper credential validation, entry is permitted Free egress all times

Door remains closed and locked upon power failure

SET #9

Doors: 240A

2 $\lim_{n \to \infty} (a)$	BB1199 4 1/2 X 4 1/2 NRP	US32D	TTA
2 Hinge(s)	BB1199 4 1/2 X 4 1/2 NRP	U\$32D	HA
1 Hinge(s)	BB1199 4 1/2 X 4 1/2 ETW-4	US32D	HA
1 Exit Device	4601 RIM MLR	US26D	HA
1 Exit Device Trim	46CE WLM	US26D	HA
1 Mortise Cylinder	3902 x LAR	US26D	HA
1 Power Operator	8318 PUSH	ALM	HA
1 Kick Plate	190S 10" x 2" LDW	US32D	HA
2 Actuator	2-659-0165	US32D	HA
1 Weather Ring	2-659-0168	BLACK	HA
1 Set Weatherstrip	881S N x LAR	MIL	HA
1 Drip Cap	810S x LAR	MIL	HA
1 Door Bottom	770S V x LAR	MIL	HA
1 Threshold	520S V x LAR	MIL	HA

NOTE: PERMANENT CYLINDER AS DIRECTED BY OWNER

Verify hardware is compatible with existing door preps and provide filler plates/cover plates as required to cover existing holes in the face of the doors from removal of door hardware that is not on this list. Fill, reveneer edges, and stain to match the faces. Notify Architect of any material that is not capable of being used or retrofitted.

Card Reader by Security Contractor

Description of operation: Door is normally closed and secure. Upon proper credential validation, exteror actuator is activated and entry is permitted Pressing actuator opens door Door latches upon closing Free egress all times Door remains closed and latched upon power failure

SET #10

Doors: 240B, 254A

2 Hinge(s)	BB1191 4 1/2 X 4 1/2 NRP	US32D	HA
1 Hinge	BB1191 4 1/2 X 4 1/2 ETW-4	US32D	HA
1 Exit Device	4601 RIM MLR	US26D	HA
1 Exit Device Trim	46NL WLM	US26D	HA
1 Rim Cylinder	3901 x LAR	US26D	HA
1 Closer	5100	ALM	HA
1 Kick Plate	190S 10" x 2" LDW	US32D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA
1 Set Weatherstrip	881S N x LAR	MIL	HA

1 Drip Cap	810S x LAR	MIL	HA
1 Door Bottom	770S V x LAR	MIL	HA
1 Threshold	520S V x LAR	MIL	HA
1 Power Supply	2908		HA
1 Access Control Module	2-679-0704		HA

NOTE: PERMANENT CYLINDER AS DIRECTED BY OWNER

Verify hardware is compatible with existing door preps and provide filler plates/cover plates as required to cover existing holes in the face of the doors from removal of door hardware that is not on this list. Fill, reveneer edges, and stain to match the faces. Notify Architect of any material that is not capable of being used or retrofitted.

Card Reader by Security Contractor

Description of operation: Door is normally closed and secure, Access by key leaves trim in locked position Upon proper credential validation, entry is permitted Free egress all times Door remains closed and locked upon power failure

SET #11

Doors: 246

3 Hinge(s)	BB1279 4 1/2 X 4 1/2	US26D	HA
1 Latchset	3810 SECT WLM	US26D	HA
1 Closer	5100	ALM	HA
1 Kick Plate	190S 10" x 2" LDW	US32D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA
1 Seal	726 x LAR	S	HA

SET #12

Doors: 248

3 Hinge(s)	BB1279 4 1/2 X 4 1/2	US26D	HA
1 Privacy Set	3840 SECT WLM	US26D	HA
1 Closer	5100 TRK NHOTA	ALM	HA
1 Kick Plate	190S 10" x 2" LDW	US32D	HA
1 Mop Plate	190S 4" x 1" LDW	US32D	HA
3 Door Silencer	307D	GREY	HA

SET #13

Doors: 253, 260B

3 Hinge(s)	BB1279 4 1/2 X 4 1/2	US26D	HA
1 Lockset	3880 SECT WLM	US26D	HA

1 Closer	5100 HDCS	ALM	HA
3 Door Silencer	307D	GREY	HA

NOTE: PERMANENT CYLINDER AS DIRECTED BY OWNER

SET #14

NOTE: NOT USED

SET #15

Doors: 267A

2 Hinge(s)	BB1279 4 1/2 x 4 1/2 NRP	US26D	HA
1 Hinge	BB1279 4 1/2 X 4 1/2 ETW-4	US26D	HA
1 Electrified Lockset	3880ELEU SECT WLM	US26D	HA
1 Closer	5100	ALM	HA
1 Kick Plate	190S 10" x 2" LDW	US32D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA
1 Seal	726 x LAR	S	HA
1 Power Supply	2908		HA
1 Access Control Module	2-679-0704		HA

NOTE: PPERMANENT CYLINDER AS DIRECTED BY OWNER

Card Reader by Security Contractor

Description of operation: Door is normally closed and secure, Access by key leaves trim in locked position Upon proper credential validation, entry is permitted Free egress all times Door remains closed and locked upon power failure

SET #16

Doors: 267B

1 L	atchset	3810 SECT WLM	US26D	HA
	NOTE: REUSE REMAINDER	OF EXISTING HARDWARE		
SET #17				
Doors	or 268			

Doors: 268

3 Hinge(s)	BB1191 4 1/2 X 4 1/2 NRP	US32D	HA
1 Exit Device	4601 RIM F	US26D	HA
1 Exit Device Trim	46BE WLM	US26D	HA

1 Closer	5100 HDCS	ALM	HA
1 Set Weatherstrip	881S N x LAR	MIL	HA
1 Drip Cap	810S x LAR	MIL	HA
1 Door Bottom	770S V x LAR	MIL	HA
1 Threshold	520S V x LAR	MIL	HA

NOTE: PERMANENT CYLINDER AS DIRECTED BY OWNER

SET #18

Doors: 254B

1 Set Door Pull	Н 13Ј	US32D	HA
1 Pocket Door Kit	9630		HA

SET #19

Doors: 254C

3 Hinge(s)	BB1279 4 1/2 X 4 1/2	US26D	HA
1 Passage Set	3810 SECT WLM	US26D	HA
1 Closer	5100	ALM	HA
1 Kick Plate	190S 10" x 2" LDW	US32D	HA
1 Wall Stop	232W/236W (as required)	US32D	HA
1 Seal	726 x LAR	S	HA

END OF SECTION