ADDENDUM NO. 3

LOXAHATCHEE RIVER DISTRICT

Science Center at Jupiter Inlet Lighthouse Outstanding Area

PROJECT NO. ITB # 22-009-00119

TO ALL BIDDERS AND OTHERS CONCERNED:

Contractors submitting proposals for the above referenced project shall take note of the clarification to the Contract and Specifications that shall become a part of the contract documents.

BID DOCUMENTS (Due December 13, 2022)

Note: Bidder must acknowledge Receipt of Addendum on Proposal- Article 2, Page 17 of the Contract Documents.

Dated this 2nd day of December 2022

Loxahatchee River District

Kris Dean, P.E.

PLEASE ACKNOWLEDGE RECEIPT OF ADDENDUM NO. 3 (PAGE 1 – PAGE 34) BY SIGNING BELOW – EMAIL to KRIS.DEAN@LRECD.ORG IMMEDIATELY.

_____
Signature

_____
Title

_____
Company

Bid Documents will be received by Loxahatchee River District via DemandStar until 2:00 P.M. on Tuesday, December 13, 2022.

Bidders are reminded to acknowledge Addendum No. 3 on Article - 2

A. BIDDERS QUESTIONS AND ANSWERS:

Q1 - Plan sheet A2.20 indicates the Trellis is an aluminum structure (columns and rafters) as a Design Build Engineered Structure. The structural plan sheet S-305 shows the trellis structure as wood. How are these typical trellis's to be priced? Shouldn't these be an allowance item? You are also showing T&G decking but no indication of thickness. The roofing material is shingles, and the nailing may penetrate the decking and show on the underside. Since your structural engineer prepared some of the details for the trellis would it be advantageous for them to complete the design to have everyone have a competitive bid based on the drawings?
A1 - Trellis design addendum will be provided in the near future.

Q2 - Who will be providing and installing the AV equipment projection screens and projectors. If by GC please provide specifications.
A2 – Owner will provide for the Contractor to install.

Q3 - Is the Equipment shown on Sheet A4.01 to be supplied by the Contractor or the Owner?
A3 - Owner will provide for the Contractor to install.

Q4 - Plan sheet A0.30 indicates Door type OOH.C as a coiling door. Detail 6 on the same plan sheet shows door track as an Overhead door. Door panel Types indicates an overhead sectional door with flood vents. Please provide specification for the flood vents. Will installing flood vents in an overhead door void the door NOA? Are any additional flood vents needed within the exterior walls of either building?
A4 - The door in question is to be an overhead sectional door. The basis-of-design manufacturer's engineering department will need to make special provisions to add flood vents and maintain the product approval. Alternative manufacturers will be considered.

Q5 - Plan Sheet A0.30 has included the Door Schedule and refers to Hardware numbers or groups but no Hardware Schedule exists on the plans or in the Specifications. Please provide the Hardware Schedule.
A5 - Specification section 08 71 00 DOOR HARDWARE has been added in this addendum.

Q6 - The General Note plans GN-1 notes under utilities states that the contractor to connect the sewer from the abandoned existing septic tank to "low pressure sewer service". Can the architect / district please clarify and show how far is the existing sewer from the building and how much restoration will be required? Please show route to be followed.
A6 - The low pressure sewer system will be installed up to the exterior wall of the houses under a separate contract. See sheet C-03 of the Septic-to-Sewer plan sheets prepared by Holtz Consulting Engineers, Inc

Q7 - The demolition site Sheet DM-1 plans shows existing site to be removed, demolished and to be removed by "others". Can the architect/ district please clarify if these items marked "to be removed by others will be done by the bidding contractors? please clarify.
A7 - Items marked to be performed "By Others" are items that will be completed by the contractor working on the septic-to-sewer project. This project is currently being constructed and is anticipated to be completed prior to the commencement of this project

Q8 - Plan sheet A4.02 and subsequent pages are calling for a 2x2 wood top and bottom railing with 1x1 wood pickets. Fastened to aluminum columns. Will this application meet codes for design pressures? These wood railings are also going to warp terribly being that thin and fastening at the lower steps may be a larger challenge. Can these rails be fabricated from aluminum?
A8 - Wood railings are preferred. Provide vertical 2x4 upper rail and lower rail with a horiz 2x4 rail cap at top and 2x2 pickets spaced to not permit a 4 sphere from passing. Updated details to be provided in future addendum.

Q9 - Within the project specifications in October of 2016 a survey for Lead-Based Paint was done and reported positive in all the buildings on-site. Was the remediation of this issue resolved or are we to include remediation in our proposals? If we are to include this cost are all the structures tested to be remediated or just those shown within the plans that are being renovated? This request also to include asbestos remediation as well. Please advise.
A9 - Per the Lead-Based Paint Survey Report, lead-based paint was found in samples collected from Building H and contractor should follow EPA's Renovation Repair and Painting and OSHA's standard for worker exposure. Remediation is not part of the project scope. Per the Asbestos Survey Report there was no trace of asbestos in the buildings being remodeled as part of this project.

Q10 - The architectural plan set shows that Bids documents contains Sheets A 2.10 & A2.11. These sheets are not in the Bid documents. Can the District / architect provide these two sheets as part of the bid documents?
A10 - Sheets A2.10 and A2.11 were included with Addendum #1.

Q11 - Structural sheet S-201 Calls for a new trellis to be constructed on the north side of the Science Center. The structural details sheets S- 305 shows for the trellis to be in a wood framed structure structure, which conflict with the architectural sheet A7.50 detail 06 which shows trellis to be aluminum. Can you architect please clarify.
A11 - Trellis design addendum will be provided in the near future.

Q12 - When will the site be available to visit? Is there a specific person we have to meet in order to access the property and structures?
A12 - Site visits have been scheduled for December 1 and December 8, from 9am - 10 am.

Q13 - Architectural Plans sheet A4.03 & and sheet details Sheet A4.02 calls for the ramp and stairs handrails and railings to be constructed with 2" X 2" wood handrails and a 1"x1" wood pickets? Can the architect please verify whether this wood railing system will support the horizontal load as required by code. Please clarify
A13 - Wood railings are preferred. Provide vertical 2x4 upper rail and lower rail with a horiz 2x4 rail cap at top and 2x2 pickets spaced to not permit a 4 sphere from passing. Updated details to be provided in future addendum.

Q14 - The plans call for lockers to be provide and installed in the Science Center. Can the architect please specify the material type for the locker and a manufacturer?
A14 - Hollman Lockers Essentials Collection, Model F Six Tier Locker, 12"W, 12" D, 72" H with 4" base, grey interior, provide full range of standard plastic laminate samples for selection of exterior finish, keyless 1 satin nickel locks, ID tags Square satin nickel.

Q15 - Plan sheets HS-1 & HS-2 specify 2 ea Most Dependable Fountains w Bottle Filler. Please provide a model number as there are many to choose from.
A15 - Model # 10150 SMSS in stainless steel, powder coated textured pyrite.

Q16 - Counter tops are called out to be TZ-1 (Terrazzo). Are these tops cementitious, epoxy terrazzo or a solid surface that looks like terrazzo? Substrate material?
A16 - TZ-1 is specified in the Materials & Finishes schedule on sheet A0.20.

Q17 - Will the Loxahatchee River District accept the industry standard AIA bid bond form attached with the power of attorney? The document titled “Bid Security Form” would be executed/completed by bidder and not by the Surety.
A17 - Yes, the District will accept the AIA Document A310 as standard bid bond described in Article 3, paragraph 2. The bidder still needs to submit Article 3.

Q18 - Per Article 1, No. 24 Health, Safety and Environmental Performance; Proposers are required to submit…a copy of its written health, safety and environmental program with training records for the previous 36 months.
Please clarify what documents are we required to submit showing our training records for the previous 36 months?
We have contacted OSHA today and they think that request is a little ridiculous or arduous. Is this something the contractors can provide after he/she have been deemed the lowest and responsive bidder as well as the safety manual (since we paid a company $10K to prepare our manual) and we do not wish other contractors to see if they submit a public records request. After all these items do not have a monetary advantage for a bidder if it is or is not submitted with the bid day proposal. Therefore, it is a lot of work for bidders to assemble and if they are not the responsive and awarded bidder then all this work and effort was a waste time.
A18 - The Health, Safety and Environmental Performance section has been revised to align with the scope of this project and the most current available TRIR and DART figures from BLS. The revision is included with this Addendum

Q19 - Site Plan SP-2 calls for a new 12x36 shed to be provide and installed. Can the architect. / Owner please provide some more specification on the shed requirements. e.g. how many entry doors, windows, louvers etc.
A19 - Standard features should include impact resistant vinyl siding, wood Frame studs, ¾ in pressure treated plywood floor (Can support a car), and R-11 thermo-ply insulation board, and Asphalt Shingle Roof. (Built like a house)- meet Florida Hurricane Building Code. 12 x 36 shed outside dimensions.
• 12 x 6 ft Wood porch
• 12 x 30 ft inside shed dimensions
• 8 ft side wall height
• 8 ft roll-up door
• 30 x 30 regular windows-3
• Prewired for electric

B. CONTRACT DOCUMENTS:

Underline denotes additions to the Contract Documents

~~Strikethrough~~ denotes deletions to the Contract Documents

BIDDING REQUIREMENTS

1-1. Table on Contents
1-2. Article 1 – Instruction to Bidders
1-3. Technical Specifications

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SECTION NO. TECHNICAL SPECIFICATIONS

1. Addenda

2. Bid Documents, including the Contract

3. Special Conditions

4. Technical Specifications / Plans and Specifications

5. General Conditions

6. Bidder's Response

After award, in the event of a conflict, Change Orders, supplemental agreements, and revisions to Plans and Specifications will take precedence over any of the above. Detailed plans shall have precedence over general plans. In the event that any conflicts cannot be resolved by reference to this governing order of Contract Documents provision, then the District shall resolve the conflict in any manner which is acceptable to the District and which comports with the overall intent of the Contract Documents.

22. To render a Bid responsive, the Bidder's Proposal must be accompanied by the Bid Form provided in Article 2 of the Contract Documents. Acceptable references and projects to be included shall be those related to the position of General Contractor on a multi-discipline project that includes structural, mechanical, electrical, plumbing, architectural, and site improvements. References provided shall be from the "owner" of the Project, not the project engineer or Contractor. The District will not award a Bid to any Bidder who cannot prove to the satisfaction of the District that the corporation/partnership/individual identified on the signature of Bidder form has satisfactory written references for similar work. References that are from a parent corporation or affiliated subsidiary will not be considered by the District.

23. Notice to Proceed: The Notice to Proceed for this project will be issued within 90 days of the Award of Contract at a time mutually agreed to by the District and lowest responsive bidder.

24. Health, Safety and Environmental Performance: The District shall evaluate Bidder's health, safety and environmental performance based on the following performance metrics and documentation reviews. The selected Bidder is solely responsible for all applicable health, safety, and environmental requirements, and the health, safety, and environmental evaluation conducted by the District is not an assumption of any responsibility for health, safety, and environmental requirements by the District. Bidders who fail to submit with their Bid information demonstrating compliance with the following criteria shall be considered non-responsive/non-responsible:

U.S. Department of Labor Occupational Safety and Health Administration (OSHA) Incident Rates and Recordable Injuries:

Total Days Away, Restricted, Transferred (DART) **Benchmark 1.9**
(U.S. Bureau of Labor Statistics, Table 1). Incidence rates of nonfatal occupational injuries and illnesses by industry and case types, **2019,**

25th percentile or better for size 50-249, NAICS 236200, Nonresidential building construction. Bidder's DART must be less than or equal to benchmark.

Total Recordable Incident Rate (TRIR) **Benchmark 3.6**
(U.S. Bureau of Labor Statistics, Table 1. Incidence rates of nonfatal occupational injuries and illnesses by industry and case types, **2019, 25th percentile or better for size 50-249, NAICS 236200, Nonresidential building construction). Bidder's TRIR must be less than or equal to benchmark.**

Fatalities: **0** Work related fatalities resulting in OSHA citations within the last three years, OR if 1 or more work related fatalities resulting in an OSHA citation exist within the last three years, the contractor must have mitigated risk of recurrence by implementing adequate industry standard safety procedures and training as determined by OSHA by providing such OSHA determination to the District.

Bidder shall submit a health, safety and environmental plan for Construction and General Industry. The health, safety and environmental plan must address the following minimum requirements:

Lockout/Tagout
~~Excavation Trenching and Shoring~~
~~Permit Required Confined Space~~
Injury Reporting/Investigation
Operator Qualifications
Hot Work
Personal Protective Equipment Electrical Safety
Near Miss, Behavioral Based Safety
Qualified, Certified and Competent Employees

OSHA Inspection Detail review must show no Serious or Willful violations in the previous 36 months and no unresolved Failure to Abate Prior Violation in the previous 36 months and no active Failure to Abate Prior Violation.

Bidder shall submit with their Bid OSHA Form 300A completed for the previous year, an Experience Modification Rating letter from its insurance carrier for the current period and a copy of its written health, safety and environmental program with training records for the previous 36 months.

25. **Previous Performance on District Projects:** The District has implemented a Contractor Evaluation Report in an effort to document contractor performance on District projects. Bidders who have received Unsatisfactory ratings on previous District projects must submit with their Bid a mitigation plan detailing previous unsatisfactory ratings and measures implemented to address the

SECTION 08 71 00

DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Mechanical door hardware for the following:
      a. Swinging doors.
      b. Sliding doors.
   2. Cylinders for door hardware specified in other Sections.
   3. Electrified door hardware.

B. Related Requirements:
   1. Section 08 11 13 "Hollow Metal Doors and Frames" for door silencers provided as part of hollow-metal frames.
   2. Section 08 31 13 "Access Doors and Frames" for access door hardware, including cylinders.

1.2 COORDINATION

A. Installation Templates: Distribute for doors, frames, and other work specified to be factory prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

B. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

C. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

D. Existing Openings: Where hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide proper door operation.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.
   1. Conference participants shall include Installer's Architectural Hardware Consultant and Owner's security consultant.

B. Keying Conference: Conduct conference at Project site.

1. Conference participants shall include Installer's Architectural Hardware Consultant and Owner's security consultant.
2. Incorporate conference decisions into keying schedule after reviewing door hardware keying system including, but not limited to, the following:
    a. Flow of traffic and degree of security required.
    b. Preliminary key system schematic diagram.
    c. Requirements for key control system.
    d. Requirements for access control.
    e. Address for delivery of keys.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.
1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For electrified door hardware.
1. Include diagrams for power, signal, and control wiring.
2. Include details of interface of electrified door hardware and building safety and security systems.

C. Samples: For each exposed product in each finish specified, in manufacturer's standard size.
1. Tag Samples with full product description to coordinate Samples with door hardware schedule.

D. Door Hardware Schedule: Prepared by or under the supervision of Installer's Architectural Hardware Consultant. Coordinate door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
1. Submittal Sequence: Submit door hardware schedule after or concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate the fabrication of other work that is critical in Project construction schedule.
2. Format: Use same scheduling sequence and format and use same door numbers as in door hardware schedule in the Contract Documents.
3. Content: Include the following information:
    a. Identification number, location, hand, fire rating, size, and material of each door and frame.
    b. Locations of each door hardware set, cross-referenced to Drawings on floor plans and to door and frame schedule.
    c. Complete designations, including name and manufacturer, type, style, function, size, quantity, function, and finish of each door hardware product.
    d. Description of electrified door hardware sequences of operation and interfaces with other building control systems.
    e. Fastenings and other installation information.
    f. Explanation of abbreviations, symbols, and designations contained in door hardware schedule.
    g. Mounting locations for door hardware.
    h. List of related door devices specified in other Sections for each door and frame.

E. Keying Schedule: Prepared by or under the supervision of Installer's Architectural Hardware Consultant, detailing Owner's final keying instructions for locks. Include schematic keying diagram and index each key set to unique door designations that are coordinated with the Contract Documents.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer and Architectural Hardware Consultant.

B. Product Certificates: For each type of electrified door hardware.
   1. Certify that door hardware for use on each type and size of labeled fire-rated doors complies with listed fire-rated door assemblies.

C. Product Test Reports: For compliance with accessibility requirements, for tests performed by manufacturer and witnessed by a qualified testing agency, for door hardware on doors located in accessible routes.

D. Field quality-control reports.

E. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of door hardware to include in maintenance manuals.

B. Schedules: Final door hardware and keying schedule.

1.7 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
   1. Door Hardware.
   2. Electrical Parts.

1.8 QUALITY ASSURANCE

A. Installer Qualifications: Supplier of products and an employer of workers trained and approved by product manufacturers and of an Architectural Hardware Consultant who is available during the course of the Work to consult Contractor, Architect, and Owner about door hardware and keying.
   1. Warehousing Facilities: In Project's vicinity.
   2. Scheduling Responsibility: Preparation of door hardware and keying schedule.
   3. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.

B. Architectural Hardware Consultant Qualifications: A person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and who is currently certified by DHI as an Architectural Openings Consultant (AOC).

1.9 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for door hardware delivered to Project site.

B. Tag each item or package separately with identification coordinated with the final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.

C. Deliver keys and permanent cores to Owner by registered mail or overnight package service.

1.10 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
   1. Failures include, but are not limited to, the following:
      a. Structural failures including excessive deflection, cracking, or breakage.
      b. Faulty operation of doors and door hardware.
      c. Deterioration of metals, metal finishes, and other materials beyond normal weathering and use.
   2. Warranty Period: Three years from date of Substantial Completion unless otherwise indicated below:
      a. Electromagnetic Locks: Five years from date of Substantial Completion.
      b. Exit Devices: Two years from date of Substantial Completion.
      c. Manual Closers: 10 years from date of Substantial Completion.
      d. Concealed Floor Closers: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain each type of door hardware from single manufacturer.
   1. Provide electrified door hardware from same manufacturer as mechanical door hardware unless otherwise indicated. Manufacturers that perform electrical modifications and that are listed by a testing and inspecting agency acceptable to authorities having jurisdiction are acceptable.

2.2 PERFORMANCE REQUIREMENTS

A. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Means of Egress Doors: Latches do not require more than 15 lbf to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.

C. Accessibility Requirements: For door hardware on doors in an accessible route, comply with the USDOJ's "2010 ADA Standards for Accessible Design" the ABA standards of the Federal agency having jurisdiction ICC A117.1 and The Florida Accessibility Code.
   1. Provide operating devices that do not require tight grasping, pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf.
   2. Comply with the following maximum opening-force requirements:
      a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf applied perpendicular to door.
      b. Sliding or Folding Doors: 5 lbf applied parallel to door at latch.
      c. Fire Doors: Minimum opening force allowable by authorities having jurisdiction.
   3. Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than 1/2 inch high.
   4. Adjust door closer sweep periods so that, from an open position of 90 degrees, the door will take at least 5 seconds to move to a position of 12 degrees from the latch.
   5. Adjust spring hinges so that, from an open position of 70 degrees, the door will take at least 1.5 seconds to move to the closed position.

2.3 HINGES

A. Hinges: BHMA A156.1. Provide template-produced hinges for hinges installed on hollow-metal doors and hollow-metal frames.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide Hager Companies; BB1168 or a comparable product by one of the following:
      a. Allegion plc.
      b. Baldwin; part of the Spectrum Brands Hardware and Home Improvement Group (HHI).
      c. Bommer Industries, Inc.
      d. McKinney Products Company; ASSA ABLOY Accessories and Door Controls Group, Inc.; ASSA ABLOY.
      e. STANLEY; dormakaba USA, Inc.

2.4 SELF-CLOSING HINGES AND PIVOTS

A. Self-Closing Hinges and Pivots: BHMA A156.17.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide Hager Companies; or a comparable product by one of the following:
      a. Allegion plc.
      b. Bommer Industries, Inc.
      c. McKinney Products Company; ASSA ABLOY Accessories and Door Controls Group, Inc.; ASSA ABLOY.
      d. STANLEY; dormakaba USA, Inc.

2.5 CONCEALED HINGES

A. Concealed Hinges: Fully concealed within mortises in the door edge and frame and allowing door to swing open 180 degrees.

1. Basis-of-Design Product: Subject to compliance with requirements, provide McKinney Products Company; ASSA ABLOY Accessories and Door Controls Group, Inc.; ASSA ABLOY; or a comparable product by one of the following:
    a. SOSS Door Hardware; Universal Industrial Products, Inc.
    b. Simonswerk North America, Inc.
    c. Sugatsune America, Inc.

2.6 MECHANICAL LOCKS AND LATCHES

A. Lock Functions: As indicated in door hardware schedule.

B. Lock Throw: Comply with testing requirements for length of bolts required for labeled fire doors, and as follows:
    1. Bored Locks: Minimum 1/2-inch latchbolt throw.
    2. Mortise Locks: Minimum 3/4-inch latchbolt throw.
    3. Deadbolts: Minimum 1-inch bolt throw.

C. Lock Backset: 2-3/4 inches unless otherwise indicated.

D. Lock Trim:
    1. Description: As indicated in hardware schedule.
    2. Levers: Cast.
        a. As indicated in hardware schedule.
    3. Escutcheons (Roses): Cast.
    4. Dummy Trim: Match lever lock trim and escutcheons.

E. Bored Locks: BHMA A156.2; Grade 1; Series 4000.
    1. Basis-of-Design Product: Subject to compliance with requirements, provide Corbin Russwin, Inc.; an ASSA ABLOY Group company; or a comparable product by one of the following:
        a. Allegion plc.
        b. SARGENT Manufacturing Company; ASSA ABLOY.
        c. Yale Security Inc; ASSA ABLOY.

F. Mortise Locks: BHMA A156.13; Operational Grade 1; stamped steel case with steel or brass parts; Series 1000.
    1. Basis-of-Design Product: Subject to compliance with requirements, provide Corbin Russwin, Inc.; an ASSA ABLOY Group company; or a comparable product by one of the following:
        a. Adams Rite Manufacturing Company, an ASSA ABLOY Group company.
        b. Allegion plc.
        c. Hager Companies.
        d. SARGENT Manufacturing Company; ASSA ABLOY.
        e. Yale Security Inc; ASSA ABLOY.

G. Roller Latches: BHMA A156.16; Grade 1; rolling plunger that engages socket or catch, with adjustable roller projection.
    1. Basis-of-Design Product: Subject to compliance with requirements, provide Rockwood Manufacturing Company; ASSA ABLOY Accessories and Door Controls Group, Inc.; ASSA ABLOY; as scheduled or a comparable product by one of the following:

a. Allegion plc.
b. Baldwin; part of the Spectrum Brands Hardware and Home Improvement Group (HHI).

H. Push-Pull Latches: Bored, BHMA A156.2; Series 4000; with paddle handles that retract latchbolt; capable of being mounted vertically or horizontally.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Corbin Russwin, Inc.; an ASSA ABLOY Group company; as scheduled or a comparable product by one of the following:
a. Adams Rite Manufacturing Company, an ASSA ABLOY Group company.
b. Allegion plc.
c. Rockwood Manufacturing Company; ASSA ABLOY Accessories and Door Controls Group, Inc.; ASSA ABLOY.
d. SARGENT Manufacturing Company; ASSA ABLOY.
2. Grade: 1.

2.7 AUXILIARY LOCKS

A. Bored Auxiliary Locks: BHMA A156.36: Grade 1; with strike that suits frame.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
a. Allegion plc.
b. Hager Companies.
c. Medeco Security Locks; an ASSA ABLOY Group company.
d. SARGENT Manufacturing Company; ASSA ABLOY.
e. Yale Security Inc; ASSA ABLOY.

B. Mortise Auxiliary Locks: BHMA A156.36; Grade 1; with strike that suits frame.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
a. Adams Rite Manufacturing Company, an ASSA ABLOY Group company.
b. Allegion plc.
c. Hager Companies.
d. SARGENT Manufacturing Company; ASSA ABLOY.
e. Yale Security Inc; ASSA ABLOY.

C. Narrow Stile Auxiliary Locks: BHMA A156.36; Grade 1; with strike that suits frame.

D. Push-Button Combination Locks: BHMA A156.36; cylindrical; Grade 1; lock opens by entering a one- to five-digit code by pushing correct buttons in correct sequence; automatically relocks when door is closed; with strike that suits frame.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
a. Kaba Ilco Corp.

2.8 ELECTRIC STRIKES

A. Electric Strikes: BHMA A156.31; Grade 1; with faceplate to suit lock and frame.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide ASSA ABLOY Electronic Security Hardware; ASSA ABLOY; as scheduled or a comparable product by one of the following:
      a. Adams Rite Manufacturing Company, an ASSA ABLOY Group company.
      b. Allegion plc.
      c. Hanchett Entry Systems (HES), Inc.; ASSA ABLOY Group.

2.9 ELECTROMECHANICAL LOCKS

A. Electromechanical Locks: BHMA A156.25; Grade 1; motor or solenoid driven; with strike that suits frame.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide SARGENT Manufacturing Company; ASSA ABLOY; or a comparable product by one of the following:
      a. Allegion plc.
      b. Yale Security Inc; ASSA ABLOY.
   2. Type: As scheduled.

2.10 EXIT LOCKS AND EXIT ALARMS

A. Exit Locks and Alarms: BHMA A156.29, Grade 1.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide SARGENT Manufacturing Company; ASSA ABLOY; as scheduled or designation or a comparable product by one of the following:
      a. Arrow USA; an ASSA ABLOY Group company.
      b. Detex Corporation.
      c. Precision Hardware, Inc.; dormakaba Group.

2.11 SURFACE BOLTS

A. Surface Bolts: BHMA A156.16.
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. Allegion plc.
      b. Burns Manufacturing Incorporated.
      c. Don-Jo Mfg., Inc.
      d. Door Controls International.
      e. Hiawatha, Inc; a division of the Activar Construction Products Group.
      f. Standard Metal Hardware Manufacturing LTD.
      g. Trimco.

2.12 MANUAL FLUSH BOLTS

A. Manual Flush Bolts: BHMA A156.16; minimum 3/4-inch throw; designed for mortising into door edge.
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
      a. Adams Rite Manufacturing Company, an ASSA ABLOY Group company.
      b. Allegion plc.
      c. Burns Manufacturing Incorporated.
      d. Don-Jo Mfg., Inc.
      e. Door Controls International.
      f. Hiawatha, Inc; a division of the Activar Construction Products Group.
      g. INOX; Unison Hardware, Inc.
      h. Standard Metal Hardware Manufacturing LTD.
      i. Trimco.

2.13 EXIT DEVICES AND AUXILIARY ITEMS

A. Exit Devices and Auxiliary Items: BHMA A156.3.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide Precision Hardware, Inc.; dormakaba Group; as scheduled or a comparable product by one of the following:
      a. Adams Rite Manufacturing Company, an ASSA ABLOY Group company.
      b. Allegion plc.
      c. Corbin Russwin, Inc.; an ASSA ABLOY Group company.
      d. SARGENT Manufacturing Company; ASSA ABLOY.
      e. STANLEY; dormakaba USA, Inc.
      f. Yale Security Inc; ASSA ABLOY.

2.14 LOCK CYLINDERS

A. Lock Cylinders: Tumbler type, constructed from brass or bronze, stainless steel, or nickel silver. Provide cylinder from same manufacturer of locking devices.

B. Standard Lock Cylinders: BHMA A156.5; Grade 1 Grade 1A permanent cores; face finished to match lockset.
   1. Core Type: Interchangeable.

C. High-Security Lock Cylinders: BHMA A156.30; Grade 1 permanent cores that are removable; face finished to match lockset.
   1. Type: M, mechanical.

D. Construction Master Keys: Provide cylinders with feature that permits voiding of construction keys without cylinder removal. Provide 10 construction master keys.

2.15 KEYING

A. Keying System: Factory registered, complying with guidelines in BHMA A156.28, appendix. Provide one extra key blank for each lock. Incorporate decisions made in keying conference.
   1. Master Key System: Change keys and a master key operate cylinders.
      a. Provide three cylinder change keys and five master keys.
   2. Existing System:
      a. Master key or grand master key locks to Owner's existing system.
      b. Re-key Owner's existing master key system into new keying system.

B. Keys: Nickel silver.
   1. Stamping: Permanently inscribe each key with a visual key control number and include the following notation:
      a. Notation: Information to be furnished by Owner.

2.16 KEY CONTROL SYSTEM

A. Key Control Cabinet: BHMA A156.28; metal cabinet with baked-enamel finish; containing key-holding hooks, labels, two sets of key tags with self-locking key holders, key-gathering envelopes, and temporary and permanent markers; with key capacity of 150 percent of the number of locks.
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
      a. American Key Boxes and Cabinets.
      b. HPC, a Hudson Lock Company.
      c. Interlogix; Carrier Global Corporation.
      d. Lund Equipment Co., Inc.
      e. MMF Industries.
      f. TelKee; Oasis International.
   2. Wall-Mounted Cabinet: Grade 1 cabinet with hinged-panel door equipped with key-holding panels and pin-tumbler cylinder door lock.

B. Key Lock Boxes: Designed for storage of two keys.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide Knox Company; or a comparable product by one of the following:
      a. HPC, a Hudson Lock Company.
      b. Kidde; Carrier Global Corporation.

C. Key Control System Software: Multiple-index system for recording and reporting key-holder listings, tracking keys and lock and key history, and printing receipts for transactions. Include instruction manual.
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
      a. Allegion plc.
      b. BEST Access Solutions, Inc.; dormakaba USA Inc.
      c. HPC, a Hudson Lock Company.
      d. Interlogix; Carrier Global Corporation.
      e. TelKee; Oasis International.

2.17 OPERATING TRIM

A. Operating Trim: BHMA A156.6; aluminum unless otherwise indicated.
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
      a. Allegion plc.
      b. Burns Manufacturing Incorporated.
      c. Don-Jo Mfg., Inc.
      d. Forms+Surfaces.
      e. Hager Companies.
      f. Hiawatha, Inc; a division of the Activar Construction Products Group.
      g. INOX; Unison Hardware, Inc.
      h. Rockwood Manufacturing Company; ASSA ABLOY Accessories and Door Controls Group, Inc.; ASSA ABLOY.
      i. Standard Metal Hardware Manufacturing LTD.
      j. Trimco.

2.18 ACCESSORIES FOR PAIRS OF DOORS

A. Coordinators: BHMA A156.3; consisting of active-leaf, hold-open lever and inactive-leaf release trigger; fabricated from steel with nylon-coated strike plates; with built-in, adjustable safety release.

B. Astragals: BHMA A156.22.

2.19 SURFACE CLOSERS

A. Surface Closers: BHMA A156.4; rack-and-pinion hydraulic type with adjustable sweep and latch speeds controlled by key-operated valves and forged-steel main arm. Comply with manufacturer's written instructions for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide Yale Security Inc; ASSA ABLOY; or a comparable product by one of the following:
      a. Allegion plc.
      b. Corbin Russwin, Inc.; an ASSA ABLOY Group company.
      c. Rixson Specialty Door Controls; ASSA ABLOY.
      d. SARGENT Manufacturing Company; ASSA ABLOY.

2.20 CONCEALED CLOSERS

A. Concealed Closers: BHMA A156.4; rack-and-pinion hydraulic type with adjustable sweep and latch speeds controlled by key-operated valves. Comply with manufacturer's written instructions for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
2. Allegion plc.
    a. Norton Door Controls; ASSA ABLOY.
    b. Rixson Specialty Door Controls; ASSA ABLOY.
    c. SARGENT Manufacturing Company; ASSA ABLOY.
    d. dormakaba USA Inc.

2.21 CLOSER HOLDER RELEASE DEVICES

A. Closer Holder Release Devices: BHMA A156.15; Grade 1; closer connected with separate or integral releasing and fire- or smoke-detecting devices. Door shall become self-closing on interruption of signal to release device. Automatic release is activated by smoke detection system.
    1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
        a. Allegion plc.
        b. Corbin Russwin, Inc.; an ASSA ABLOY Group company.
        c. Norton Door Controls; ASSA ABLOY.
        d. Rixson Specialty Door Controls; ASSA ABLOY.
        e. SARGENT Manufacturing Company; ASSA ABLOY.
        f. STANLEY; dormakaba USA, Inc.
        g. dormakaba USA Inc.

2.22 MECHANICAL STOPS AND HOLDERS

A. Wall- and Floor-Mounted Stops: BHMA A156.16.
    1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
        a. ASI-American Specialties, Inc.
        b. Allegion plc.
        c. Architectural Builders Hardware Mfg., Inc.
        d. Baldwin; part of the Spectrum Brands Hardware and Home Improvement Group (HHI).
        e. Burns Manufacturing Incorporated.
        f. Cal-Royal Products, Inc.
        g. Don-Jo Mfg., Inc.
        h. Door Controls International.
        i. Hager Companies.
        j. Hiawatha, Inc; a division of the Activar Construction Products Group.
        k. Rockwood Manufacturing Company; ASSA ABLOY Accessories and Door Controls Group, Inc.; ASSA ABLOY.
        l. Trimco.

2.23 OVERHEAD STOPS AND HOLDERS

A. Overhead Stops and Holders: BHMA A156.8.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
a. Allegion plc.
b. Architectural Builders Hardware Mfg., Inc.
c. Hager Companies.
d. INOX; Unison Hardware, Inc.
e. Rixson Specialty Door Controls; ASSA ABLOY.
f. SARGENT Manufacturing Company; ASSA ABLOY.
g. Standard Metal Hardware Manufacturing LTD.
h. dormakaba USA Inc.

2.24 DOOR GASKETING

A. Door Gasketing: BHMA A156.22; with resilient or flexible seal strips that are easily replaceable and readily available from stocks maintained by manufacturer.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Pemko Manufacturing Company Inc.; ASSA ABLOY Accessories and Door Controls Group, Inc.; ASSA ABLOY; or a comparable product by one of the following:
a. Hager Companies.
b. Legacy Manufacturing.
c. M-D Building Products, Inc.
d. National Guard Products, Inc.
e. Reese Enterprises, Inc.
f. Sealeze.
g. Zero International; Allegion plc.

B. Maximum Air Leakage: When tested in accordance with ASTM E283 with tested pressure differential of 0.3-inch wg, as follows:
1. Smoke-Rated Gasketing: 0.3 cfm/sq. ft. of door opening.
2. Gasketing on Single Doors: 0.3 cfm/sq. ft. of door opening.
3. Gasketing on Double Doors: 0.50 cfm per ft. of door opening.

2.25 THRESHOLDS

A. Thresholds: BHMA A156.21; fabricated to full width of opening indicated.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Pemko Manufacturing Company Inc.; ASSA ABLOY Accessories and Door Controls Group, Inc.; ASSA ABLOY; or a comparable product by one of the following:
a. Hager Companies.
b. Legacy Manufacturing.
c. M-D Building Products, Inc.
d. National Guard Products, Inc.
e. Reese Enterprises, Inc.
f. Rixson Specialty Door Controls; ASSA ABLOY.
g. Sealeze.

h. Zero International; Allegion plc.

2.26 SLIDING DOOR HARDWARE

A. Sliding Door Hardware: BHMA A156.14; consisting of complete sets including rails, hangers, supports, bumpers, floor guides, and accessories indicated as scheduled.

2.27 METAL PROTECTIVE TRIM UNITS

A. Metal Protective Trim Units: BHMA A156.6; fabricated from 0.050-inch-thick stainless steel; with manufacturer's standard machine or self-tapping screw fasteners.
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
      a. Allegion plc.
      b. Burns Manufacturing Incorporated.
      c. Don-Jo Mfg., Inc.
      d. Hager Companies.
      e. Hiawatha, Inc; a division of the Activar Construction Products Group.
      f. INOX; Unison Hardware, Inc.
      g. Pawling Corporation.
      h. Rockwood Manufacturing Company; ASSA ABLOY Accessories and Door Controls Group, Inc.; ASSA ABLOY.
      i. Standard Metal Hardware Manufacturing LTD.
      j. Trimco.
      k. inpro Corporation.

2.28 AUXILIARY DOOR HARDWARE

A. Auxiliary Hardware: BHMA A156.16.

2.29 AUXILIARY ELECTRIFIED DOOR HARDWARE

A. Auxiliary Electrified Door Hardware:
   1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
      a. ASSA ABLOY Electronic Security Hardware; ASSA ABLOY.
      b. Allegion plc.
      c. Door Controls International.
      d. DynaLock Corp.
      e. Hager Companies.
      f. Interlogix; Carrier Global Corporation.
      g. PAMEX Inc.
      h. PDQ Industries, Inc.
      i. Precision Hardware, Inc.; dormakaba Group.
      j. Rutherford Controls Int'l. (RCI); dormakaba Group.

k. SARGENT Manufacturing Company; ASSA ABLOY.
l. Security Door Controls.
m. dormakaba USA Inc.

2.30 FABRICATION

A. Manufacturer's Nameplate: Do not provide products that have manufacturer's name or trade name displayed in a visible location except in conjunction with required fire-rating labels and as otherwise approved by Architect.
1. Manufacturer's identification is permitted on rim of lock cylinders only.

B. Base Metals: Produce door hardware units of base metal indicated, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and BHMA A156.18.

C. Fasteners: Provide door hardware manufactured to comply with published templates prepared for machine, wood, and sheet metal screws. Provide screws that comply with commercially recognized industry standards for application intended, except aluminum fasteners are not permitted. Provide Phillips flat-head screws with finished heads to match surface of door hardware unless otherwise indicated.
1. Concealed Fasteners: For door hardware units that are exposed when door is closed, except for units already specified with concealed fasteners. Do not use through bolts for installation where bolt head or nut on opposite face is exposed unless it is the only means of securely attaching the door hardware. Where through bolts are used on hollow door and frame construction, provide sleeves for each through bolt.
2. Fire-Rated Applications:
a. Wood or Machine Screws: For the following:
1) Hinges mortised to doors or frames.
2) Strike plates to frames.
3) Closers to doors and frames.
b. Steel Through Bolts: For the following unless door blocking is provided:
1) Surface hinges to doors.
2) Closers to doors and frames.
3) Surface-mounted exit devices.
3. Spacers or Sex Bolts: For through bolting of hollow-metal doors.
4. Gasketing Fasteners: Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

2.31 FINISHES

A. Provide finishes complying with BHMA A156.18 as indicated in door hardware schedule.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the 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 the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance of the Work.

B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Steel Doors and Frames: For surface-applied door hardware, drill and tap doors and frames in accordance with ANSI/SDI A250.6.

B. Wood Doors: Comply with door and hardware manufacturers' written instructions.

3.3 INSTALLATION

A. Mounting Heights: Mount door hardware units at heights indicated on Drawings unless otherwise indicated or required to comply with governing regulations.

B. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work. Do not install surface-mounted items until finishes have been completed on substrates involved.
   1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
   2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

C. Hinges: Install types and in quantities indicated in door hardware schedule, but not fewer than the number recommended by manufacturer for application indicated or one hinge for every 30 inches of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

D. Intermediate Offset Pivots: Where offset pivots are indicated, provide intermediate offset pivots in quantities indicated in door hardware schedule, but not fewer than one intermediate offset pivot per door and one additional intermediate offset pivot for every 30 inches of door height greater than 90 inches.

E. Lock Cylinders: Install construction cores to secure building and areas during construction period.
   1. Replace construction cores with permanent cores as directed by Owner.
   2. Furnish permanent cores to Owner for installation.

F. Key Control System:
   1. Key Control Cabinet: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
   2. Key Lock Boxes: Install where indicated or approved by Architect to provide controlled access for fire and medical emergency personnel.
   3. Key Control System Software: Set up multiple-index system based on final keying schedule.

G. Boxed Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings. Verify location with Architect.
   1. Configuration: Provide one power supply for each door opening with electrified door hardware.

H. Thresholds: Set thresholds for exterior doors and other doors indicated in full bed of sealant complying with requirements specified in Section 07 92 00 "Joint Sealants."

I. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they will impede traffic.

J. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
   1. Do not notch perimeter gasketing to install other surface-applied hardware.

K. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

L. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

3.4 FIELD QUALITY CONTROL

A. Independent Architectural Hardware Consultant: Engage a qualified independent Architectural Hardware Consultant to perform inspections and to prepare inspection reports.
   1. Independent Architectural Hardware Consultant will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
   1. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

2. Spring Hinges: Adjust to achieve positive latching when door is allowed to close freely from an open position of 70 degrees and so that closing time complies with accessibility requirements of authorities having jurisdiction.
3. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.

B. Occupancy Adjustment: Approximately three months after date of Substantial Completion, Installer's Architectural Hardware Consultant shall examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors, door hardware, and electrified door hardware.

3.6 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items as necessary to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure that door hardware is without damage or deterioration at time of Substantial Completion.

3.7 MAINTENANCE SERVICE

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

B. Maintenance Service: Beginning at Substantial Completion, maintenance service shall include 12 months' full maintenance by skilled employees of door hardware Installer. Include quarterly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door and door hardware operation. Parts and supplies shall be manufacturer's authorized replacement parts and supplies.

3.8 DOOR HARDWARE SCHEDULE

A. Hardware Set are as follows:

NOTE: All exterior windstorm rated doors must comply with building’s stated design pressures. Provide manufacturers documentation that all submitted products comply with FBC windstorm codes.
Door hardware supplier to coordinate low voltage power supplies with security system supplier

HW SET 1.0
Doors: L101-1, W110-1, L110-1

QTY/TYPE	MODEL	FINISH	MFG
6 Hinge	BB1168	630	HA
1 Electrified mortise lock	ML20906 x SEC x ARM x T	630	CR
1 Dummy Trim	ML2090 x ARM x T	630	CR
2 Surface Bolt	275D	630/626	HA

1	Power transfer	C-EPT	630	SE
2	Door Closer	2701	AL	YA
2	OH Stop	10-XXX	630	RX
1	Perimeter gasket	S88		PE
1	Threshold	2005AV	AL	PE
1	Power supply	AQD-8		SE
1	Card reader	By Div 28		

NOTE: Delete threshold for Door L100-1

HW SET 2.0
Door: L101-2, L103-2

3	Hinge	BB1168	630	HA
1	Electrified mortise lock	ML20906 x SEC x ARM x T	630	CR
1	Power transfer	C-EPT	630	SE
1	Door Closer	2701	AL	YA
1	OH Stop	10-XXX	630	RX
1	Perimeter gasket	S88		PE
1	Threshold	2005AV	AL	PE
1	Power supply	AQD-6		SE
1	Card reader	By Div 28		

HW SET 3.0
Door: W101-2, W103-1

3	Hinge	BB1168	630	HA
1	Exit Device	FLHC2303 x2003 x ELR	630	PR
1	Power transfer	C-EPT	630	SE
1	Door Closer	2701	689	YA
1	OH Stop	10-XXX	630	RX
1	Perimeter gasket	S88		PE
1	Threshold	2005AV	AL	PE
1	Power Supply	ELR150		PR
1	Card reader	By Div 28		

HW SET 4.0
Door: W101-1

6	Hinge	BB1168	630	HA
1	Exit Device	FLHC2203 x 2003 x ELR	630	PR
1	Exit Device	FLHC2203 x 2002C	630	PR
1	Power transfer	C-EPT	630	SE
2	Door Closer	2701	689	YA
2	OH Stop	10-XXX	630	RX
1	Perimeter gasket	S88		PE
1	Threshold	2005AV	AL	PE
1	Power Supply	ELR150		PR
1	Card reader	By Div 28		

HW SET 5.0
Door: W102-1

3	Hinge	MBP79	630	MK
1	Electrified lock	CL33903 x M92 x AZD	626	CR

1	Door closer	2701	689	YA
1	Power transfer	C-EPT	630	SE
1	Wall Stop	409	630	RO
1	Power supply	AQD-6		SE
1	Card reader	By Div 28		

HW SET 6.0
Door: L102-1

3 Hinge	MPB79	630	MK
1 Office lock	CL3551 x AZD	626	CR
1 Wall Stop	409	630	RO

HW SET 7.0
Door: W103-2, W108-1

3 Hinge	MPB79	630	MK
1 Storeroom lock	CL3357 x AZD	626	CR
1 Door closer	2701CLP	689	YA
1 Wall Stop	409	630	RO

HW SET 8.0
Door: L104-1, L105-1, L106-1, W104-1, W105-1, W106-1

3 Hinge	MPB79	630	MK
1 Privacy lock	CL3520 x AZD	626	CR
1 Occupancy Indicator	D292	626	YA
1 Door closer	2701	689	YA
1 Wall Stop	409	630	RO
1 Door hook	RM828	630	RO

HW SET 9.0
Door: L101-3, L103-1

1 Barn door track	H180A-SWxSoft Close	AL	PE
1 Locking pull	LP3305 DBD ADA	626	RO
1 Cylinder	01	626	CR

HW SET 10.0
Door: 109-1

1 Overhead door	by others
1 Cylinder	as required

Manufacturers Abbreviations

CR	Corbin Russwin
HA	Hager
MK	McKinney
PE	Pemko
PR	Precision

RO Rockwood
RX Rixson
SE Securitron
YA Yale

END OF SECTION 08 71 00

SECTION 26 00 00
WORK INCLUDED

PART 1: GENERAL

1.1 DESCRIPTION OF SYSTEMS

A. The work required under this Division shall include all materials, labor and auxiliaries required to install, start up and test a complete and properly operating electrical system. The electrical systems required under this Division consist basically of, but are not limited to, the following:

1. Complete distribution system for power including service entrance, main switchboards and distribution panels, feeders, branch circuits, convenience outlets and connections to motors and other power loads.
   a. The Contractor shall submit at the shop drawing submittal stage, ½-inch scale, dimensioned drawings of actual electrical equipment layouts in all electrical and mechanical rooms, based on the equipment being provided. Any conflicts shall be resolved between the General Contractor and the respective subcontractors to provide for the equipment location and required working clearances.
   b. Conduit routing is not shown on the documents. It shall be the Contractors responsibility to field route all raceways and coordinate such routing with all disciplines to resolve any conflicts, as necessary to provide the intended connections. It shall be assumed that the design was based on the shortest possible route. Where conduit or duct routing follows other than direct paths, the conductors and raceways shall be adjusted accordingly to account for voltage drop.
   c. The Contractor shall provide a complete Arch Flash, Fault and Coordination study for the entire 600-volt power distribution system. The study shall be based on the actual equipment installed and indicate the required fault duty in RMS symmetrical amps for each Overcurrent protective device. Provide time-current curves for each device, along with settings for all adjustable trip devices. The contractor shall ensure that all adjustable devices are set in accordance with the settings presented in the study. The study shall be signed and sealed by a Florida Licensed Engineer and shall be approved prior to the purchase of any equipment or overcurrent protective devices.
2. Complete distribution system for service, panels, power, & lighting including the necessary equipment, feeders, branch circuits, lighting fixtures, control devices, control wiring and devices.
3. Connecting motors and manual control (unless otherwise specified).
4. Complete system of lightning protection as required by this specification.
5. ~~Complete fire alarm system.~~
6. Complete power distribution system for HVAC equipment including wiring, conduits, and disconnect switches.
7. Complete system of empty raceways (with pull lines) and terminal cabinets and power requirements for EMCS (Energy Management and Control System), and all communication and technology systems (i.e., telephone, data, public address, CCTV, audio-visual, security, and access control).

8. Furnishing and installing all necessary access panels.
9. Concrete work for equipment pads or encased raceways.
10. Painting (of special equipment).
11. Temporary power.
12. Contractor shall check site and existing conditions thoroughly before bidding. Advise Architect of discrepancies or questions note.
13. Whether indicated on the drawings or not, if a requirement is listed, mentioned, or described in this specification, the cost for its provision and complete installation and connection, shall be included in the Contractor's bid.
14. he Contractor is cautioned to consult drawings of all disciplines to ascertain electrical requirements for systems that may not be on the electrical plans. Specific attention is directed to special systems such as ~~fire alarm,~~ security, EMCS, etc. The Contractor shall include in his bid, the cost for providing and installing all electrical provisions for a complete, operating system.
15. Perform all required commissioning. The contractor shall designate an individual to serve on the commissioning team and shall cooperate as required concerning all commissioning related activities, meetings, documentation, field tests, etc. The contractor shall provide all technically qualified personnel, equipment, instrumentation, and materials on a continuous basis in order to perform their required tasks at the required time period and provide all required or requested assistance by the commissioning provider to complete the commissioning process.
16. The contractor is required per referenced specifications to complete all applicable Pre-Functional Test Report forms on the systems being commissioned. This may include as well; start-up check list forms.

END OF SECTION

SECTION 26 01 27
CODES, FEES, AND STANDARDS

PART 1: GENERAL

1.1 CODES AND STANDARDS

A. Unless specifically noted to the contrary, the Contractor shall furnish all equipment, materials, labor, and install and test in accordance with these specifications.

B. The Contractor shall comply with the latest applicable editions of the following:

1. City of West Palm Beach Ord.
2. 2020 Florida Fire Prevention Code
3. NFPA 101 (2018 Edition)
4. 2020 Florida Building Code (Seventh Edition)
5. NFPA-70 - National Electrical Code (2017)
6. ~~NFPA-72 - National Fire Alarm Code (2016)~~
7. U.L. - Underwriter's Laboratories
8. NEMA - National Electrical Manufacturer's Association
9. ASTM - American Society for Testing and Materials
10. IEEE - Institute of Electrical and Electrical Engineers
11. ANSI - American National Standards Institute
12. ADA - Americans with Disabilities Act

C. Reference to standards shall mean and intend the latest edition of such standards adopted and published at the date of bidding documents.

D. Materials and installation, as a minimum, shall conform with local and state codes and ordinances.

1.2 FEES, CHARGES, COSTS

A. It is the contractor's responsibility to contact the appropriate Utility Company and/or Building Department to determine if any fees, charges, or costs will be due to them. This fee, charge or cost shall be included in this contractor's bid price.

END OF SECTION

SECTION 26 05 00
BASIC MATERIALS AND METHODS

PART 1: GENERAL

1.1 WORK INCLUDES

A. Contractor shall provide:
   1. Work shown on the drawing and specified herein.

1.2 RELATED WORK

A. Specified Elsewhere
   1. Division 1 - Drawings and general provisions of Contract, including, but not limited to, General, Special, and Supplementary Conditions and other Division-1 Specification Sections, apply to the work of this Section.
   2. Division 23 - applicable sections.
   3. Division 26 - applicable sections.

1.3 QUALITY ASSURANCE

A. All work and materials shall be in accordance with the requirements and codes of the State of Florida, and all other applicable bodies having jurisdiction.
B. If, in the opinion of the Contractor, any part of the specification or plans do not comply with the laws, codes and regulations, that matter shall be referred in writing to the attention of the Engineer for a decision before proceeding with that part of the work. There shall be no changes in the drawings or specifications made without approval of the Engineer. Where a discrepancy exists between the drawings and this specification, the more stringent shall apply.
C. This Contractor shall secure and pay for all permits required by local authorities and shall provide the Owner with satisfactory interim and final inspection certificates.
D. Bidders shall visit the site and familiarize themselves with existing conditions and satisfy themselves as to the nature and scope of the work and the difficulties that attend its execution. The submission of a bid will be construed as evidence that such an examination has been made and that the existing conditions have been allowed for in hid bid.
E. Before opening any material or doing any work, examine Architectural, Structural, Electrical, Mechanical, Plumbing, ~~Fire Protection,~~ Civil, Landscape and Equipment drawings, verify all conditions of project. Any differences which occur between drawings or between them and specifications, or between both of these and actual field measurements shall be reported in writing to Consultant and written instructions for changes obtained before proceeding with work.

1.4 SUBMITTALS

A. In accord with Division One.
   1. Product Data
      a. Fire Stopping Material
      b. Conduit seals.

yellow, neutral - gray, and ground - green.

B. Maintain A, B, C, phase relation left to right or top to bottom when viewed from front. Maintain color coding throughout entire project.

C. Phase conductors, size #10 and smaller, and neutral and ground conductors, shall have continuous outer finish color as indicated above. Size #8 and larger conductors shall have black insulation and be color coded with a six-inch band of colored tape at all junctions and terminators.

D. Identify each feeder and branch circuit conductor fed from panel and circuit number at each accessible location.

3.3 NAMEPLATE ENGRAVING SCHEDULE

A. Provide nameplates of minimum letter height as scheduled below.
   1. Panelboards: 1/2 inch-identify panelboard name. 1/4 inch-identify voltage rating.
   2. Individual Circuit Breakers and Switches: 3/8 inch-identify circuit and load served, including location.
   3. Safety Switches and Enclosed Switches: ½ inch - identify switch name; 1/4-inch - identify load served.
   4. Transformers: 3/8 inch-identify transformer name. 1/4 inch-identify primary and secondary voltages.
   5. Electrical Cabinets and Enclosures: 3/8 inch- identify equipment name.
   6. System Terminal Cabinets: 3/8 inch-identify equipment or system name.

B. Headwall: 1/8 inch-identify panel and circuit number serving outlet (ex. 'LINA - 2') located above each outlet on headwall.

C. Provide panelboard and circuit number on engraved trim plate, on each receptacle and switch. Engraving shall be deep enough to be visible and legible from a distance of 5'-0". Fasten nameplate to switch coverplate.

3.4 BOX COLOR CODING SCHEDULE

A. Paint junction box and cover, and 6" of all conduits entering/leaving, in the following manner:
   1. ~~Fire alarm - Red~~
   2. Communications (Data/Telephone/Intercom) - Blue
   3. Audio Visual- Purple
   4. Access Control - Brown
   5. CATV – White.

3.5 LIGHTING AND POWER JUNCTION BOX IDENTIFICATION

A. Identify lighting and power junction box covers with circuit and panelboard number on the outside, using permanent marker.

3.6 PANEL DIRECTORY

A. Shall be typewritten, indicating specific and clear area of control, regardless of the listing in the panel schedules on the drawings. Indicate by room name, equipment, system, etc.