BAKER ARCHITECTURE+DESIGN

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ADDENDUM #02

DATE: August 22, 2022
PROJECT: Sininger Hall – School of Business (RFP 23-002)
FROM: Baker Architecture + Design
TO: All Prospective Offerors

Addenda Summary:

NOTICE TO BIDDERS:
This Addendum #1 forms a part of the Contract Documents and modifies the original Bidding Documents dated July 15, 2022. All other provisions of the Contract Documents shall remain unchanged. This addendum is hereby made a part of the Contract Documents to the same extent as those provisions contained in the original documents and all itemized listing thereof. Where provisions of the following supplementary data differ from those of the original Contract Documents, this Addendum shall govern and take precedence
.
Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of (**3**) pages of misc. information and (**60**) pages of attachments. Attachments as listed below

A. Bid Schedule Extension:

*Proposal deadline has been extended by one week, deadline is now **September 7th at 3:00 pm**, subcontractor qualifications will now be due on **September 9th at 3:00 pm**. Final addenda will be issued no later than August 31st.*

B. Questions:

1) "*Sheet AS-103 indicates areas for brick pavers, are those part of the owners landscaping? Also is that to be included in base bid or bid lot #1?*"

Response: This will be the responsibility of the selected GC, spec section 04 2110 Brick Pavers has been added to this addenda.

2) *"Listing Form 00 4334 – Subcontractor Qualification Questionnaire lists to provide for Masonry –in which there is none on this project, Flooring – in which is by owner, Concrete – there is very minimal, Carpentry- there is very minimal as well. Can we go by the threshold listed of $190,000 and not the per-listed categories?"*

Response: **Yes, it is acceptable to go by the threshold.**

3) ***"**General Contractors Cost Form – Can we provide this after the bid/ at notice of award? During the bid day there is not enough time to compile all that cost breakdown, while trying to analyze all sub-contractors and supplies bids and get to the best accurate price to turn in as the GC. Let alone most subs bid different scope of work and we would after the fact have them breakout several items on that list as well.**"*

Response: General Contractor's Cost Form can be submitted with the subcontractor's qualifications form on September 9th by 3:00 pm.

4) "*Please provide hardware set for the following doors: 107, 108, 110, 111 (Not on Plan), 113, 114, 116, 231, 248*"

Response: See attached updated Door Schedule (A-601) and associated updated door hardware specification (08 7100)

5) *"The auto operators are listed in Sections 087100 and 087113. Which is correct? 087100 would be supply only. 087113 would be supplied, installed, and wired by local Horton dealer."*

Response: Specification section 08 7113 should be referenced.

6) *"Table of contents includes spec 101419 Dimensional Letter Signage, there is no spec. Please provide."*

Response: Specification is included in this addenda.

7) "*Has it been determined if this building is going to have to get fire sprinkler system? If so do we have to include or will it be by owner? "*

Response: Fire suppression system is required and will be included as part of the GC scope, drawings and specifications will be provided in the final addenda, issued no later than August 31, 2022.

8) *"Is there abatement in this project?"*

Response: No, there are no known contaminants in the building but if any are found the owner will be responsible for the removal and selected GC will not incur penalty for any delays as a result.

9) *" Sheet AS-102 general note 1 indicates GC to provide and install irrigation sleeving, please provide sheet with layout of where lines are to go."*

Response: See updated AS-102 and AS-103, irrigation sleeving has been removed from project.

10) *"Sheet A-110 and spec 096513 is calling for resilient base and transition strips, isn't this to be by the owners flooring contractor? Usually the flooring subs include this in there scope of work, it doesn't seem right to have 2 different subs interfere with each other's materials."*

Response: Resilient Base and associated transition strips has been moved from GC to owner's scope, see updated A-603, included in this addenda.

11) *"Sheet A110 calls for new tile in Elevator, is this by owners Elevator Sub Upgrade work?"*

Response: No this tile work will fall under the selected GC's scope along with all other tile.

12) "*Per Page 18 of the NMHU Bid Documents item 4c there is a suggestion that I should use an 1984 AIA Document 213. I want to use the most modern version of the AIA forms and need to confirm they will be acceptable to the owner."*

Response: Removal of Section III, Item4c in RFP Solicitation. The entirety of this section is to be removed as it contradicts other areas of the RFP in particular Section 00 6000. Forms referenced in Section 00 6000 Bonds and Insurance shall be utilized.

C. Approved Product Substitutions:

The Contractor shall bear full responsibility to prove to the Engineer and Architect that the furnished equipment is equivalent to or better than the specified item. Failure to provide such proof will result in rejection of the shop drawing submittal by the Engineer and/or Architect. Prior written or verbal approval by the Engineer or Architect of equipment by other manufacturers will not relieve the Contractor of responsibility to provide equivalence. Any prior approval given is intended only to provide preliminary agreement that the alternate manufacturer may make equipment that complies with the specification requirements and not that all equipment manufactured by them is acceptable.

It is the responsibility of the supplier to ensure that the substituted products per this and all previous addenda meet or exceed the specified performance criteria and the design intent of the Bid Documents. Prior approval of a manufacturer does not imply an approval of all products by the manufacturer.
The following is list of prior approvals; this list does not relieve the contractor of their responsibility to comply with the intent of the contract documents.

*(*The following prior approvals are those currently approved through the date of this addenda issuance, not including those already approved in previous addenda.)*

1) Linear Metal Ceiling System – 09 5423

Paragraph 2.1
Product: Linear Beam Baffle
American Decorative Ceilings
4510 East 71st St Suite 5
Cleveland, Ohio 44105

D. Project Manual Updates: (Attached – 55 pages):

Section 04 2110 Brick Masonry Pavers - Added
Section 08 7100 Door Hardware – Corrected
Section 08 7113 Automatic Door Operators – Corrected
Section 09 5423 Linear Metal Ceiling System – Finish and size clarification.
Section 10 1419 Dimensional Letter Signage - Added

E. Revised Architectural Drawings: (Attached – 5 pages) :

Sheet AS-102 – Site Plan – Removed irrigation sleeve note
Sheet AS-103 – Enlarged Site Plan – Removed irrigation sleeve note
Sheet A-101 – First Floor plan – Updated room title from Electrical to Fire Riser Room
Sheet A-601 – Door Schedule – Door 110 removed from schedule and replaced with Door 111
Sheet A-603 – Finish Schedule – Resilient Base moved from GC to owner's scope

END OF ADDENDA

Tomas Sanchez, RA
Project Architect
Baker Architecture + Design

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

SECTION 04 2110

BRICK MASONRY

PART 1 - GENERAL

1.1. SUMMARY

A. The work covered by this division of specifications, in general, includes furnishing and installing all masonry materials; items specified in other divisions to be set in masonry shall be provided and installed under this division. Brick sidewalks shall be installed as per design patterns shown on the plans.

1.2. DESCRIPTION OF WORK

A. Brick paving shall be constructed in those areas as shown on the plans and/or as directed, and shall consist of brick placed on a sand-cement bed as shown on plans and/or as directed, and the joints filled with approved clean white silica sand. The exact pattern, brick size, and construction details shall be as shown on the plans.

1.3. SUBMITTALS

A. Comply with Section 01 3300 – Submittal Procedures.

B. Product Data: Submit data indicating material specifications, characteristics, and instructions for using adhesives, grouts, mortars, and additives.

C. Samples: Showing the full range of colors available, and sizes, if applicable.

D. Submit manufacturer's installation instructions, if available.

E. Maintenance data: Include recommendations for cleaning and stain removal methods, and cleaning materials per Section 01 7000 – Execution Requirements.

F. Closeout Submittals:
   1. Submit manufacturer's complete maintenance data per Section 01 7700 – Closeout Procedures.
   2. Provide 2 copies of manufacturer's Maintenance Manual for complete care of masonry brick. Submit to Owner, through Architect, for review and approval.

PART 2 - PRODUCTS

2.1. MATERIALS

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

A. Materials used shall meet the following requirement:
   1. Masonry Cement- AASHO M-150Type II
   2. Preformed Bituminous Fiber Expansion Material – AASHO M-153 Type II or approved equal
   3. Brick – Kinney Brick Co. 3-5/8" x 2-1/4" x 7-5/8" Color: "S/W Summit Flint" or equal
   4. Sand – Fine aggregate for mortar shall meet the requirement of the AASHO Standard Specification for "Aggregate for Masonry Mortar" M-45 and shall be clean and free of salt
   5. Water – Water for mixing shall be potable, clean, and free from oil, acids, salts, and other deleterious matter

PART 3 - EXECUTION

3.1. CONSTRUCTION METHODS

A. Construction of brick paving, shall meet the following requirements:
   1. Sand Cement Bed – Sand-cement bedding course shall consist of sand and Portland Cement in the proportion of 1 part cement and 4 parts sand by weight, mixed dry until the mass is of uniform color. Mixing must be carried out at an approved batch mix plant. The contractor must furnish a batch ticket with each load, stating the correct batched weights of each material. Hand mixing will not be permitted.
   2. The bedding course shall be placed and shaped upon the prepared soils base so that its furnished depth shall not be less than 4 inches.
   3. The bedding shall be shaped to a true surface, parallel with surface of finished brick walkway, by means of template, and the bed shall be struck off until proper alignment is secured. The contractor shall coordinate his work so that the area of bedding course placed and rolled in any workday shall be scheduled so that no bedding course remains at the end of the day without the brick course placed.
   4. After final shaping, the bedding shall not be disturbed prior to laying the brick.
   5. Preformed bituminous fiber expansion joint material shall be furnished in areas as shown on the plansJoint sealers are to be placed as per plans and specifications.
   6. The brick shall be laid in successive coursed with the better face or wire-cut side upward.
   7. Each and every course of brick shall be laid true and even and brought to grade by use of wooden mallets or similar tools. No course shall deviate from a straight line more than 2 inches in 30 feet. Brick laying shall take place in a continuous sequence and shall follow the completion of the bedding within 50 feet.
   8. Immediately after placement of brick, brick surfaces shall be swept and inspected. Any imperfect brick as determined by the City Engineer shall be lifted out and reset.

B. Cutting Brick - Required cutting of bricks shall be accomplished with a mason's saw using a diamond blade or broken by brick hammer on an approved straight and even edge.

C. Sand Filler
   1. Joints shall be thoroughly chocked with a clean white fine grained silica sand.
   2. The sand filler shall be brought up flush with surface of bricks. After filling, bricks shall

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

be swept clean and carefully watered to saturate the joint filler, care being exercised not to displace filler form the joints. Any joints to which do not remain flush with brick surfaces shall be rechocked and watered, particular attention shall be paid to small section of cut brick necessary to fit manholes, light poles, water meters, tree planters, and any other obstructions within the sidewalk area.

3.2. CLEANING

A. The contractor shall remove from the roadway and sidewalk all excavated material, debris, and dirt as rapidly as the completion of the repair work proceeds and in no case will it be permissible for this material to remain as an obstruction or safety hazard overnight.

3.3. MASONRY WASTE DISPOSAL

A. Masonry Waste Disposal: Remove excess, clean masonry waste, and other masonry waste, and legally dispose of off Owner's property.

END OF SECTION

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Automatic operators.
4. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Hollow Metal Doors and Frames”.
2. Division 08 Section “Flush Wood Doors”.
3. Division 08 Section “Aluminum-Framed Entrances and Storefronts”.
4. Division 28 Section “Access Control”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
8. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards as

applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."

2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

3. Content: Include the following information:

   a. Type, style, function, size, label, hand, and finish of each door hardware item.

   b. Manufacturer of each item.

   c. Fastenings and other pertinent information.

   d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.

   e. Explanation of abbreviations, symbols, and codes contained in schedule.

   f. Mounting locations for door hardware.

   g. Door and frame sizes and materials.

   h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of

other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:

a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.

b. Complete (risers, point-to-point) access control system block wiring diagrams.

c. Wiring instructions for each electronic component scheduled herein.

2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this

Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

E. Automatic Operator Supplier Qualifications: Power operator products and accessories are required to be supplied and installed through the Norton Preferred Installer (NPI) program. Suppliers are to be factory trained, certified, and a direct purchaser of the specified power operators and be responsible for the installation and maintenance of the units and accessories indicated for the Project.

F. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.

2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

G. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.

H. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

I. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and

physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

J. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace

components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

D. Special Warranty Periods:

1. Ten years for mortise locks and latches.
2. Seven years for heavy duty cylindrical (bored) locks and latches.
3. Five years for exit hardware.
4. Twenty five years for manual overhead door closer bodies.
5. Five years for motorized electric latch retraction exit devices.
6. Two years for electromechanical door hardware, unless noted otherwise.

1.8 MAINTENANCE SERVICE

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

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

C. Products furnished, but not installed, under this Section include the following. Coordinating, purchasing, delivering, and scheduling remain requirements of this Section.

1. Permanent cylinders, cores, and keys to be installed by Owner.

D. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:

a. Two Hinges: For doors with heights up to 60 inches.

b. Three Hinges: For doors with heights 61 to 90 inches.

c. Four Hinges: For doors with heights 91 to 120 inches.

d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.

b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.

b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:

a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.

5. Manufacturers:

a. McKinney (MK).

B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared

hinge. with minimum 0.120-inch thick extruded 6063-T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Manufacturers:

    a. Pemko (PE).

2.3 POWER TRANSFER DEVICES

A. Electrified Quick Connect Continuous Geared Transfer Hinges: Provide electrified transfer continuous geared hinges with a removable service panel cutout accessible without de-mounting door from the frame. Furnish with Molex™ standardized plug connectors with sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

    a. Pemko (PE) - SER-QC (# wires) Option.

B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:

    a. McKinney (MK) - Electrical Connecting Kit: QC-R001.

    b. McKinney (MK) - Connector Hand Tool: QC-R003.

2. Manufacturers:

    a. McKinney (MK) - QC-C Series.

2.4 DOOR OPERATING TRIM

A. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with

beveled edges, secured with exposed screws unless otherwise indicated.

2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
5. Manufacturers:
    a. Rockwood (RO).

2.5 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

B. Key Quantity: Provide the following minimum number of keys:

1. Construction Keys (where required): Ten (10).
2. Construction Control Keys (where required): Two (2).

C. Construction Keying: Provide construction master keyed cylinders.

D. Construction Keying: Provide temporary keyed construction cores.

E. Key Registration List (Bitting List):

1. Furnish a list of opening numbers with locking devices, showing cylinder types and quantities required when cylinders or cores are to be owner furnished.

2.6 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Extended cycle test: Locks to have been cycle tested in ordinance with ANSI/BHMA 156.13 requirements to 14 million cycles or greater.

2. Where specified, provide status indicators with highly reflective color and wording for “locked/unlocked” or “vacant/occupied” with custom wording options if required. Indicator to be located above the cylinder with the inside thumb-turn not blocking the visibility of the indicator status. Indicator window size to be a minimum of 2.1” x 0.6” with a curved design allowing a 180 degree viewing angle with protective covering to prevent tampering.

3. Manufacturers:

    a. Sargent Manufacturing (SA) - 8200 Series.

B. Cylindrical Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.2, Series 4000, Operational Grade 1 Certified Products Directory (CPD) listed.

1. Locks shall meet or exceed the requirements of ANSI/BHMA A156.2 Series 4000, Grade 1 with all standard trims, as follows:

    a. Cycle Test: ANSI/BHMA A156.2 Grade 1 requirements with no lever sag.

    b. Abusive Locked Lever Torque: Exceed 3,100 in-lb with no entry; lock to maintain egress functionality in compliance with BHMA certification requirements.

    c. Offset Lever Pull: Exceed 1,600 lbs with no entry (8 times ANSI/BHMA A156.2 requirements).

    d. Latch Retraction with Preload: Exceed 100 lb preload while maintaining ANSI/BHMA requirements for operation in warped doors (2 times ANSI/BHMA A156.2 requirements).

2. Vertical Impact: Exceed 100 vertical impacts (20 times ANSI/BHMA A156.2 requirements).

3. Furnish with solid cast levers, standard 2 3/4” backset, and 1/2" (3/4" at rated paired openings) throw brass or stainless steel latchbolt.

4. Locks are to be non-handed and fully field reversible.

5. Extended cycle test: Locks to have been cycle tested in ordinance with ANSI/BHMA 156.2 requirements to 12 million cycles.

6. Manufacturers:

    a. Sargent Manufacturing (SA) - 10X Line.

2.7 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.

4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.8 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.

2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.

3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.

4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.

5. Flush End Caps: Provide flush end caps made of architectural metal in the same finish as the devices as in the Hardware Sets. Plastic end caps will not be acceptable.

6. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.

   a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.

   b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.

7. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.

8. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.

9. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.

10. Extended cycle test: Devices to have been cycle tested 50 million cycles.

11. Rail Sizing: Provide exit device rails factory sized for proper door width application.

12. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.

1. Manufacturers:

a. Sargent Manufacturing (SA) - 80 Series.

C. Extruded Aluminum Removable Mullions: ANSI/BHMA A156.3 anodized, removable mullions with malleable-iron top and bottom retainers. Mullions to be provided standard with stabilizers and imbedded weatherstrip.

1. Manufacturers:

a. Same as exit device manufacturer.

D. Tube Steel Removable Mullions: ANSI/BHMA A156.3 removable steel mullions with malleable-iron top and bottom retainers and a primed paint finish.

1. Provide keyed removable feature where specified in the Hardware Sets.

2. Provide stabilizers and mounting brackets as required.

3. Provide electrical quick connection wiring options as specified in the hardware sets.

4. Manufacturers:

a. Same as exit device manufacturer.

2.9 ELECTROMECHANICAL EXIT DEVICES

A. Electromechanical Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices subject to same compliance standards and requirements as mechanical exit devices. Electrified exit devices to be of type and design as specified below and in the hardware sets.

1. Energy Efficient Design: Provide devices which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.

2. Where conventional power supplies are not sufficient, include any specific controllers required to provide the proper inrush current.

3. Motorized Electric Latch Retraction: Devices with an electric latch retraction feature must use motors which have a maximum current draw of 600mA. Solenoid driven latch retraction is not acceptable.

4. Manufacturers:

   a. Sargent Manufacturing (SA) - 80 Series.

2.10 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.

2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.

3. Cycle Testing: Provide closers which have surpassed 15 million cycles.

4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.

5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.

6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.

7. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves

for closing sweep and latch speed control. Provide non-handed units standard.

1. Manufacturers:

    a. Norton Rixson (NO) - 7500 Series.

C. Door Closers, Surface Mounted (Unitrol): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted closers with door stop mechanism to absorb dead stop shock on arm and top hinge. Hold-open arms to have a spring loaded mechanism in addition to shock absorber assembly. Arms to be provided with rigid steel main arm and secondary arm lengths proportional to the door width.

1. Manufacturers:

    a. Norton Rixson (NO) - Unitrol Series.

2.11 ELECTROMECHANICAL DOOR OPERATORS

A. General: Provide low energy operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for compliance with UL 325. Coordinate operator mechanisms with door operation, hinges, and activation devices.

1. Fire-Rated Doors: Provide door operators for fire-rated door assemblies that comply with NFPA 80 for fire-rated door components and are listed and labeled by a qualified testing agency.

B. Standard: Certified ANSI/BHMA A156.19.

C. Performance Requirements:
1. Opening Force if Power Fails: Not more than 15 lbf required to release a latch if provided, not more than 30 lbf required to manually set door in motion, and not more than 15 lbf required to fully open door.
2. Entrapment Protection: Not more than 15 lbf required to prevent stopped door from closing or opening.

D. Configuration: Surface mounted or in-ground as required. Door operators to control single swinging and pair of swinging doors.

E. Operation: Power opening and spring closing operation capable of meeting ANSI A117.1 accessibility guideline. Provide time delay for door to remain open before initiating closing cycle as required by ANSI/BHMA A156.19.

F. Features: Operator units to have full feature adjustments for door opening and closing force and speed, backcheck, motor assist acceleration from 0 to 30 seconds, time delay, vestibule interface delay, obstruction recycle, and hold open time from 0 up to 30 seconds.

G. Provide outputs and relays on board the operator to allow for coordination of exit device latch retraction, electric strikes, magnetic locks, card readers, safety and motion sensors and specified auxiliary contacts.

H. Brackets and Reinforcements: Manufacturer's standard, fabricated from aluminum with nonferrous shims for aligning system components.

I. Wireless Interface: Operator units shall have a wireless interface via a mobile device for ease of installation and setup.

J. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Norton Rixson (NO) - 6300 Series.
2. Ditec Entrematic (DI) - HA-9 Series

2.12 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.

2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.

3. Where plates are applied to fire rated doors with the top of the plate more than 16” above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer’s catalog and template book for specific requirements for size and applications.

4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:

a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.

6. Manufacturers:

a. Rockwood (RO).

2.13 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall

bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

    a. Rockwood (RO).

C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Manufacturers:

    a. Norton Rixson (RF).

2.14 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. Pemko (PE).

2.15 ELECTRONIC ACCESSORIES

A. Touchless Switches: FCC certified microwave sensing switch used for REX or activation of various access control devices in place of a traditional wired switch. Unit to have an adjustable sensing zone from 4” to 24”. At exterior locations furnish foam gaskets and weather covers. Provide single gang or double gang unit as specified in the hardware sets.

1. Manufacturers:

a. Norton Rixson (NO) - 700 Series.

b. Securitron (SU) - WSS Series.

2.16 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.17 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

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

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Power Operator products and accessories are required to be installed through current members of the manufacturer's "Power Operator Preferred Installer" program.

D. Retrofitting: Install door hardware to comply with manufacturer's published templates and 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 specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Division 01 Sections “Closeout Procedures”.

Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

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.

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.

2. The supplier is responsible for handing and sizing all products.

3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.

B. Manufacturer's Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. SA - SARGENT
4. MC - Medeco
5. RO - Rockwood
6. NO - Norton
7. OT - Other
8. SU - Securitron

Hardware Sets

Set: 1.0

Doors: 125

2	Elec Continuous Hinge	CFM_SLF-HD1 SER		PE
1	Removable Mullion	L980A	US28	SA
1	Elec Rim Exit, Storeroom	LC 43 55 56 AD8504 862	US32D	SA
1	Elec Rim Exit, Dummy	43 55 56 AD8510 862	US32D	SA
1	Cylinder/Core	Provided by Owner	26	MC
2	Surface Closer	7500	689	NO
2	Floor Stop (Exterior)	466-RKW	Black	RO
1	Threshold	171A		PE
1	Gasketing	By Aluminum Frame Supplier		OT
2	Sweep	315CN		PE
2	Frame Wiring Harness	QC-C1500P		MK
2	Door Wiring Harness	QC-Cxxx		MK
2	Door Position Switch	By Security Integrator		OT
1	Card Reader	By Security Integrator		OT
1	Power Supply	By Security Integrator		OT

Notes: Operation Description:
Door normally closed, latched, and locked.
Presenting valid credential or key override to unlock. Exit device latch can be electrically held retracted

for open access.
Exit device latch releases and locked in event of power loss
Free to egress at all times.

Set: 1.1

Doors: 111

2	Elec Continuous Hinge	CFM_SLF-HD1 SER		PE
1	Removable Mullion	L980A	US28	SA
1	Elec Rim Exit, Storeroom	LC 43 55 56 AD8504 862	US32D	SA
1	Elec Rim Exit, Dummy	43 55 56 AD8510 862	US32D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Automatic Opener	D6000 Series	689	NO
2	Floor Stop (Exterior)	466-RKW	Black	RO
1	Threshold	171A		PE
1	Gasketing	By Aluminum Frame Supplier		OT
2	Sweep	315CN		PE
2	Frame Wiring Harness	QC-C1500P		MK
2	Door Wiring Harness	QC-Cxxx		MK
2	Door Position Switch	By Security Integrator		OT
2	Operator Actuator (Hands Free)	WSS-WSD		SU
1	Card Reader	By Security Integrator		OT
1	Power Supply	By Security Integrator		OT

Notes: All wiring, conduit, low voltage, wiring diagrams, and security by Div. 28
Auto Operator order of operations:
During normal business hours, panic device latch is electronically dogged allowing ingress without the use of key. Activation of wall-plate actuator from the outside will automatically open active leaf for ingress without needing to pull the door open manually. Egress always allowed via pushing door open or wall-plate actuator activation from inside the opening.
During off hours, doors are closed and locked. Ingress available by presenting proper credentials, or by mechanical key override.

Set: 2.0

Doors: 121

2	Elec Continuous Hinge	CFM_SLF-HD1 SER		PE
1	Removable Mullion	L980A	US28	SA
1	Elec Rim Exit, Storeroom	LC 43 55 56 AD8504 862	US32D	SA
1	Elec Rim Exit, Dummy	43 55 56 AD8510 862	US32D	SA

2	Cylinder/Core	Provided by Owner	26	MC
1	Surface Closer	7500	689	NO
1	Surface Closer	UNIJ7500	689	NO
1	Floor Stop (Exterior)	466-RKW	Black	RO
1	Threshold	171A		PE
1	Gasketing	By Aluminum Frame Supplier		OT
2	Sweep	315CN		PE
2	Frame Wiring Harness	QC-C1500P		MK
2	Door Wiring Harness	QC-Cxxx		MK
2	Door Position Switch	By Security Integrator		OT
1	Card Reader	By Security Integrator		OT
1	Power Supply	By Security Integrator		OT

Notes: Operation Description:
Door normally closed, latched, and locked.
Presenting valid credential or key override to unlock. Exit device latch can be electrically held retracted for open access.
Exit device latch releases and locked in event of power loss
Free to egress at all times.

Set: 3.0

Doors: 101

1	Elec Continuous Hinge	CFM_SLF-HD1 SER		PE
1	Elec Rim Exit, Storeroom	LC 43 55 56 AD8504 862	US32D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Automatic Opener	6300 Series	689	NO
1	Threshold	171A		PE
1	Gasketing	By Aluminum Frame Supplier		OT
1	Sweep	315CN		PE
1	Frame Wiring Harness	QC-C1500P		MK
1	Door Wiring Harness	QC-Cxxx		MK
1	Door Position Switch	By Security Integrator		OT
2	Operator Actuator (Hands Free)	WSS-WSD		SU
1	Card Reader	By Security Integrator		OT
1	Power Supply	By Security Integrator		OT

Notes: Operation Description:
Door normally closed, latched, and locked.
Presenting valid credential or key override to unlock. Exit device latch can be electrically held retracted for open access.

ADA access by actuator switch. In locked condition, actuator energized only upon valid card reader presentation
Exit device latch releases and locked in event of power loss
Free to egress at all times. ADA egress by actuator switch

Set: 4.0

Doors: 117

1	Elec Continuous Hinge	CFM_SLF-HD1 SER		PE
1	Elec Rim Exit, Exit Only	43 55 AD8510 EO	US32D	SA
1	Surface Closer	UNIJ7500	689	NO
1	Drop Plate	7786	689	NO
1	Threshold	171A		PE
1	Gasketing	By Aluminum Frame Supplier		OT
1	Sweep	315CN		PE
1	Frame Wiring Harness	QC-C1500P		MK
1	Door Wiring Harness	QC-Cxxx		MK
1	Door Position Switch	By Security Integrator		OT

Notes: Exit Only. Door and push bar status monitored.

Set: 5.0

Doors: 104a, 104b

3	Hinge, Hvy Wt	T4A3786 (NRP/Size as req.)	US26D	MK
1	Rim Exit Device, Classroom	LC 43 8813 ETP	US32D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Surface Closer	7500	689	NO
1	Kick Plate	K1050 10" x 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406/409	US32D	RO
1	Gasketing	S88D		PE

Set: 6.0

Doors: 108, 114, 120, 123, 124a, 207, 209, 220, 228, 230, 231, 248

3	Hinge	TA2714 (NRP/Size as req.)	US26D	MK
1	Storeroom Lock	LC 10XG04 LP	US26D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Surface Closer	7500	689	NO
1	Kick Plate	K1050 10" x 2" LDW CSK BEV	US32D	RO

1	Wall Stop	406/409	US32D	RO
3	Silencer	608-RKW		RO

Set: 6.1

Doors: 113

6	Hinge	TA2714 (NRP/Size as req.)	US26D	MK
1	Flush Bolt (Comb Wd)	2945	US26D	RO
1	Dust Proof Strike	570	US26D	RO
1	Storeroom Lock	LC 10XG04 LP	US26D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Coordinator	2600	Black	RO
2	Mounting Bracket	2601AB/C (As Required)	Black	RO
2	Surface Closer	P7500	689	NO
2	Kick Plate	K1050 10" x 2" LDW CSK BEV	US32D	RO
2	Wall Stop	406/409	US32D	RO
2	Silencer	608-RKW		RO

Set: 6.2

Doors: 116

3	Hinge	TA2714 (NRP/Size as req.)	US26D	MK
1	Storeroom Lock	LC 10XG04 LP	US26D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Surface Closer	P7500	689	NO
1	Kick Plate	K1050 10" x 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406/409	US32D	RO
3	Silencer	608-RKW		RO

Set: 7.0

Doors: 105

3	Hinge	TA2714 (NRP/Size as req.)	US26D	MK
1	Storeroom Lock	LC 10XG04 LP	US26D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Surface Closer	CLP7500	689	NO
1	Kick Plate	K1050 10" x 2" LDW CSK BEV	US32D	RO
1	Gasketing	By Aluminum Frame Supplier		OT

Set: 8.0

Doors: 109, 128, 129, 204, 205, 206, 212, 213, 214, 215, 218, 219, 221, 222, 223, 224, 225, 226, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 246, 247

3	Hinge	TA2714 (NRP/Size as req.)	US26D	MK
1	Office Lock	LC 10XG05 LP	US26D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Wall Stop	406/409	US32D	RO
1	Gasketing	By Aluminum Frame Supplier		OT

Set: 9.0

Doors: 203, 210, 217

3	Hinge	TA2714 (NRP/Size as req.)	US26D	MK
1	Office Lock	LC 10XG05 LP	US26D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Surface Closer	7500	689	NO
1	Kick Plate	K1050 10" x 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406/409	US32D	RO
1	Gasketing	By Aluminum Frame Supplier		OT

Set: 10.0

Doors: 211

3	Hinge	TA2714 (NRP/Size as req.)	US26D	MK
1	Classroom Lock	LC 10XG37 LP	US26D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Wall Stop	406/409	US32D	RO
1	Gasketing	By Aluminum Frame Supplier		OT

Set: 11.0

Doors: 119, 130, 131, 202, 208

3	Hinge	TA2714 (NRP/Size as req.)	US26D	MK
1	Classroom Lock	LC 10XG37 LP	US26D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Surface Closer	7500	689	NO
1	Kick Plate	K1050 10" x 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406/409	US32D	RO
1	Gasketing	By Aluminum Frame Supplier		OT

Set: 12.0

Doors: 112

3	Hinge	TA2714 (NRP/Size as req.)	US26D	MK
1	Classroom Lock	LC 10XG37 LP	US26D	SA
1	Cylinder/Core	Provided by Owner	26	MC
1	Surface Closer	P7500	689	NO
1	Kick Plate	K1050 10" x 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406/409	US32D	RO
1	Gasketing	By Aluminum Frame Supplier		OT

Notes: Parallel mount closer.

Set: 13.0

Doors: 106, 107, 227

3	Hinge	TA2714 (NRP/Size as req.)	US26D	MK
1	Privacy Lock w/ Indicator	V21 8265 LNP	US26D	SA
1	Surface Closer	7500	689	NO
1	Kick Plate	K1050 10" x 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406/409	US32D	RO
1	Gasketing	S88D		PE

Set: 14.0

Doors: 126, 127, 233, 234

3	Hinge	TA2714 (NRP/Size as req.)	US26D	MK
1	Push Plate	70F	US32D	RO
1	Pull Plate	111x70C	US32D	RO
1	Surface Closer	7500	689	NO
1	Kick Plate	K1050 10" x 2" LDW CSK BEV	US32D	RO
1	Wall Stop	406/409	US32D	RO
1	Gasketing	S88D		PE

END OF SECTION 087100

SECTION 087113 - AUTOMATIC DOOR OPERATORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Low energy automatic door operators for swinging doors.

B. Related Sections:

1. Division 01 Section "General Conditions".
2. Division 01 Section "Cash Allowances".
3. Division 01 Section "Product Allowances".
4. Division 01 Section "Closeout Procedures".
5. Division 08 Section “Door Schedule”.
6. Division 08 Section “Hollow Metal Doors and Frames”.
7. Division 08 Section “Flush Wood Doors”.
8. Division 08 Section “Door Hardware”.
9. Division 08 Section “Access Control Hardware”.
10. Division 26 Section “Electrical”.

A. Codes and Standards: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ANSI/BHMA A156.4 - Door Controls, Door Closers.
3. ANSI/BHMA A156.19 - Power Assist and Low-Energy Power Operated Doors.
4. ICC/IBC - International Building Code.
5. NFPA 70 - National Electrical Code.
6. NFPA 80 - Fire Doors and Windows.
7. NFPA 101 - Life Safety Code.
8. NFPA 105 - Installation of Smoke Door Assemblies.
9. UL/ULC and CSA C22.2 – Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
10. UL 325 - Door, Drapery, Gate, Louver, and Window Operators and Systems.
11. State Building Codes, Local Amendments.

1.3 PERFORMANCE REQUIREMENTS

A. Automatic door operators to be used on interior or exterior doors; up to 200 pounds (91 kg) weight and maximum door width of 48" (1219 mm).

1. Auto door operator capable of operating within temperature ranges of -22°F (-30°C) and 122°F (50°C).

1.4 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, and finishes for automatic door operators, including activation devices. Include operating characteristics, electrical characteristics, and furnished accessories.

B. Shop Drawings: Include details and attachments to other work.

1. Include locations and elevations of each unique entrance showing activation devices.
2. Indicate required clearances, components, and location and size of field connections.
3. Wiring Diagrams: For power, signal, and activation wiring.

C. Qualification Data: Provide copy of manufacturer's official certification or accreditation document indicating proof of status as a qualified and authorized installer of automatic door operators and accessories.

D. Operating and Maintenance Manuals: Provide manufacturer's operating and maintenance manual for each item comprising the automatic door operator installation in quantity as required in Division 01, Closeout Submittals. The manual to include the name, address, and contact information of the manufacturer and Installer providing the operators and installation. The final copies delivered after completion of the installation test to include "as built" modifications made during installation, checkout, and acceptance.

E. Warranties and Maintenance: Special warranties and maintenance agreements specified in this Section.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation and maintenance of units required for this Project.

B. Certified Installer Qualifications: Power operator products and accessories are required to be supplied and installed through the Norton Preferred Installer (NPI) program. Suppliers are to be factory trained, certified, and a direct purchaser of the specified power operators and be responsible for the installation and maintenance of the units and accessories indicated for the Project.

C. Source Limitations: Obtain automatic door operators, including activation devices, from single source, qualified supplier unless otherwise indicated.

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a testing agency, and marked for intended location and application.

E. Exit Door Requirements: Comply with requirements of authorities having jurisdiction for doors with automatic door operators serving as a component of a required means of egress.

F. Fire Rated Door Assemblies: Provide operators for fire rated door assemblies that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction for use on types and sizes of labeled fire doors required.

G. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier, Installer, and Contractor to review proper methods and the procedures for receiving, handling, and installing automatic door operators.

1. Prior to installation of automatic door operators, arrange for certified Installer's representative to conduct a project specific meeting to review the installation and maintenance of their respective products. Project meeting to be attended by representatives of related trades furnishing and installing the aluminum, hollow metal and wood doors sections.
2. Review and finalize construction schedule and verify availability of materials.

1.6 COORDINATION

A. Electrical Systems Coordination: Coordinate the layout and installation of scheduled automatic door operators and related activation devices, with required connections to source power junction boxes, remote power supplies, access control equipment, detection and monitoring hardware, and fire alarm system.

B. Templates: Obtain and distribute to the parties involved, templates for doors, frames, operators, and other work specified to be factory prepared and reinforced for installing automatic door operators. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing automatic door operators to comply with indicated requirements.

C. Door and Frame Preparation: Related Division 08 Sections (Steel, Aluminum and Wood) doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified automatic door operators without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Special Warranty: Written warranty, executed by manufacturer, agreeing to repair or replace components of automatic door operators that fail in materials or workmanship within specified

warranty period after final acceptance by Owner. Failures include, but are not limited to, the following:

1. Faulty or sporadic operation of automatic door operator, including activation and safety devices.
2. Deterioration of metals, metal finishes, and other materials beyond normal weathering or use.

C. Special Warranty Period: Two years from date of Substantial Completion.

D. Provide extended warranty from defects in material or workmanship under normal use for a period of 3 years from the date of substantial completion for units installed by a certified ASSA ABLOY Power Operator Preferred Installer in accordance with the manufacturer's written warranty certificate.

1.8 MAINTENANCE SERVICE

A. Maintenance Service: Beginning at Substantial Completion, and running concurrent with the specified warranty period, provide continuous (6) months full maintenance by skilled employees of automatic door operator Installer. Include planned and preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door operation. Provide parts and supplies the same as those used in the manufacture and installation of original equipment.

B. Extended Maintenance Support and Service Agreement: Submit for Owner’s consideration an optional extended Service Agreement for the installed automatic door operator system. The extended Service Agreement is considered elective and is without manufacturer's requirement stipulating mandatory coverage for owner and/or vendor system support.

1. A published copy of this agreement to be included with the submittal package
2. Support for the installed automatic door operator system is provided through the vendor under a specified, limited 24 hour support program.
3. Automatic door operators and components are to be available on a one-day turn around time frame from the vendor.

PART 2 - PRODUCTS

2.1 ELECTROMECHANICAL DOOR OPERATORS

A. General: Provide low energy operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for compliance with UL 325. Coordinate operator mechanisms with door operation, hinges, and activation devices.

1. Fire-Rated Doors: Provide door operators for fire-rated door assemblies that comply with NFPA 80 for fire-rated door components and are listed and labeled by a qualified testing agency.

B. Standard: Certified ANSI/BHMA A156.19.

C. Performance Requirements:

1. Opening Force if Power Fails: Not more than 15 lbf required to release a latch if provided, not more than 30 lbf required to manually set door in motion, and not more than 15 lbf required to fully open door.
2. Entrapment Protection: Not more than 15 lbf required to prevent stopped door from closing or opening.

D. Configuration: Surface mounted or in-ground as required. Door operators to control single swinging and pair of swinging doors.

E. Operation: Power opening and spring closing operation capable of meeting ANSI A117.1 accessibility guideline. Provide time delay for door to remain open before initiating closing cycle as required by ANSI/BHMA A156.19.

F. Features: Operator units to have full feature adjustments for door opening and closing force and speed, backcheck, motor assist acceleration from 0 to 30 seconds, time delay, vestibule interface delay, obstruction recycle, and hold open time from 0 up to 30 seconds.

G. Provide outputs and relays on board the operator to allow for coordination of exit device latch retraction, electric strikes, magnetic locks, card readers, safety and motion sensors and specified auxiliary contacts.

H. Brackets and Reinforcements: Manufacturer's standard, fabricated from aluminum with nonferrous shims for aligning system components.

I. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Norton Door Controls (NO) - 6300 Series.

2.2 ELECTROHYDRAULIC DOOR OPERATORS

A. General: Provide low energy operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for compliance with UL 325. Coordinate operator mechanisms with door operation, hinges, and activation devices.

1. Fire-Rated Doors: Provide door operators for fire-rated door assemblies that comply with NFPA 80 for fire-rated door components and are listed and labeled by a qualified testing agency.

B. Standard: Certified ANSI/BHMA A156.19.

C. Performance Requirements:

1. Opening Force if Power Fails: Not more than 15 lbf required to release a latch if provided, not more than 30 lbf required to manually set door in motion, and not more than 15 lbf required to fully open door.
2. Entrapment Protection: Not more than 15 lbf required to prevent stopped door from closing or opening.

D. Configuration: Surface mounted or in-ground as required. Door operators to control single swinging and pair of swinging doors.

E. Operation: Power opening and spring closing operation capable of meeting ANSI A117.1 accessibility guideline. Provide time delay for door to remain open before initiating closing cycle as required by ANSI/BHMA A156.19. When not in automatic mode, door operator to function as manual door closer with fully adjustable opening and closing forces, with or without electrical power.

F. Features: Operator units to have full feature adjustments for door opening and closing force and speed, backcheck, motor assist acceleration from 0 to 30 seconds, time delay, vestibule interface delay, obstruction recycle, and hold open time from 0 up to 30 seconds.

G. Provide outputs and relays on board the operator to allow for coordination of exit device latch retraction, electric strikes, magnetic locks, card readers, safety and motion sensors and specified auxiliary contacts.

H. Brackets and Reinforcements: Manufacturer's standard, fabricated from aluminum with nonferrous shims for aligning system components.

I. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Norton Door Controls (NO) - 6000 Series.

2.3 ACTIVATION DEVICES

A. General: Provide activation devices in accordance with ANSI/BHMA A156.19 standard, for condition of exposure indicated and for long term, maintenance free operation under normal traffic load operation. Coordinate activation control with electrified hardware and access control interfaces. Activation switches are standard SPST, with optional DPDT availability.

B. Touch Less Wall Switch: Momentary contact door control switch with movement required activation. Single or double gang box junction box mounting.

1. Doppler radar sensor.
2. Mounting Location: As indicated on Drawings.
3. Manufacturers:

a. Norton Door Controls (NO) – 700 Series.
b. Securitron (SU) – WSS Series.

2.4 ACCESSORIES

A. Signage: As required by cited ANSI/BHMA A156.19 standard for the type of operator.

2.5 FINISHES

A. Standard: Designations used to indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware. Units will be sprayed with a combination of waterborne acrylic and polyester powder coat.

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

2.6 OPENING LABELS

A. Provide 1"W x 2"H gloss polyester label imprinted with door mark and QR-type code readable via IR and visible light scan. QR code links to a security credential protected site displaying the installed door opening information. Label constructed with a high-performance, permanent acrylic adhesive resistant to chemicals, smear and scratch, and repeated freeze and thaw cycles. Face stock of label to be white or clear coated, 2.0 mil thickness with tensile strength meeting or exceeding 18,000 psi.

1. Approved Manufacturer: Openings Studio™ Smart Tags (AA).

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances, door and frame preparation and reinforcements, power connections, electrical systems interfaces, and other conditions affecting performance of automatic door operators.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 INSTALLATION

A. General: Install complete automatic door operators according to manufacturer's written instructions and ANSI/BHMA A156;19 standard, including activation devices, control wiring, remote power units if any, connection to the building's fire alarm system, and required signage.

B. Power Connection: Reference Division 26 "Electrical" Sections for connection to electrical power distribution system.

C. Access Control System: Coordinate connections and operation with access control system

D. Signage: Apply signage as required by ANSI/BHMA A156.19 standard for type of door operator and direction of pedestrian travel.

3.3 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Division 01 Sections “Closeout Procedures”. Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.
2. Submit documentation of incomplete items in the following formats:

    a. PDF electronic file.
    b. Electronic formatted file integrated with the Openings Studio™ door opening management software platform.

3.4 ADJUSTING

A. Comply with requirements of ANSI/BHMA A156.19 standard. Adjust automatic door operators to function smoothly, and lubricate as recommended by manufacturer.

3.5 DEMONSTRATION

A. Certified Installer's representative to provide eight (8) hours of training to Owner's maintenance personnel in the proper adjustment, operation, and maintenance of automatic door operators.

END OF SECTION 087113

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

Section 09 54 23 - Linear Metal Ceiling System

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
1. Un-perforated linear laminate / metal ceiling panels
2. Acoustical backing.
3. Suspension assemblies
4. Accessories; provide other necessary items including devices for attachment overhead construction, secondary members, splines, splices, connecting clips, wall connectors, wall angles required for a complete installation.
5. Supplemental support framing: Provide fully engineered secondary framing as required to meet code, conforming to layout shown in drawings, to support direct-hung metal ceilings suspension system.
6. Coordinate layout and installation of items penetrating or being installed in ceiling systems with responsible trades.

B. Related Sections / Work:
1. Sections 05 40 00 – Cold-Formed metal Framing
2. Sections 09 20 00 – Plaster and Gypsum Board
3. Sections 09 50 00 – Acoustical Ceilings
4. Sections 09 90 00 – Paintings and Coatings
5. Division 23 – Heating, Ventilating and Air Conditioning
6. Division 26 - Electrical

C. Alternates (Substitutions):

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

1. Prior approval: unless otherwise provided for in the contract documents, proposed product substitutions may be submitted. Approval of a proposed substitution is contingent upon the Architect's review of the proposal for acceptability. Approved products will be set forth by addenda.

2. Submittals which do not provide adequate data for the product evaluation will not be considered. The proposed substitution must meet the requirements for this section, including but not necessarily limited to the following: single source materials supplier (specified in Section 1.5); panel design, size, composition, color and finish; suspension system component profiles and sizes; and compliance with the referenced standards

D. This Section covers the general requirements only for acoustical laminate / metal ceilings as shown on the drawings. The supplying and installation of additional accessory features and other items not specifically mentioned herein, but which are necessary to make a complete installation shall also be included or clarified accordingly.

1.3 REFERENCES

A. American Society for Testing and Materials (ASTM)

1. A641 -"Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire"

2. A653 - "Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc Iron Alloy Coated (Galvannealed) by the Hot-Dip process"

3. B209 - "Standard Specification for Aluminum and Aluminum Alloy Sheet and Plate"

4. B633 - "Standard Specification for Electrodeposited Coatings of Zinc on Iron or Steel"

5. C423 - "Sound Absorption and Sound Absorption Coefficients by Reverberation Room Method"

6. C635 - "Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings"

7. C636 - "Recommended Practice for Installation of Metal Ceiling Suspensions Systems for Acoustical and Lay-in Panels"

8. D1002 - "Practice for Adhesion Resistance"

9. D1044 - "Practice for Abrasion Resistance"

10. D1876 – "Peel Resistance of Adhesives"

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

11. E84 - "Standard Test Method for Surface Burning Characteristics of Building Materials"

12. E488 - "Standard Test Methods for Strength of Anchors in Concrete and Masonry Elements"

13. E580 - "Standard Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Requiring Moderate Seismic Restraint"

14. E795 - "Standard Practices for Mounting Test Specimens during Sound Absorption Tests"

15. E1190 - "Standard Test Methods for Strength of Power Actuated Fasteners Installed in Structural Members"

16. E1264 - "Classification for Acoustical Ceiling Products"

17. E1477 - "Standard Test Method for Luminous Reflectance factor of Acoustical Materials by use of Integrating-Sphere Reflectometers"

B. Applicable LEED Environmental Categories and Credits and performance requirements as indicated:

1. Material and Resources (MR)

   a. MR Credit 4.1 & 4.2 – Recycled Content

   b. MR Credit 5.1 & 5.2 – Regional Materials

2. Innovation in Design (IC)

   a. IC Credit 1.1 – Enhanced Acoustical Performance

C. National Electrical Manufacturers Association (NEMA) Standard 11-14-95 for Chemical Resistance.

D. Ceiling & Interior Systems Construction Association (CISCA) "Ceiling Systems Handbook".

1. Guidelines for Seismic Restraint

   a. Acoustical Tile and Lay-in Panels - Zones 0 - 2

   b. Direct Hung Suspended Ceiling Assemblies - Zones 3 & 4

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

E. Local Building Code (IBC), current edition requirements.

1.4 SUBMITTALS

A. Product Data: Manufacturers product data for each type of product specified in this section.

B. Product Certification: Manufacturer's certifications that products comply with specified requirements and governing codes including product data, laboratory test reports and research reports showing compliance with specified standards.

C. Shop (Coordination) Drawings: Submit shop drawings for reflected ceiling plans (RCP's), drawn to scale, and coordinating penetrations and ceiling mounted items. Show the following details:

1. Reflected ceiling plan including joint patterns & details.

2. Ceiling suspension system plan with appropriate components, suggested hanger locations & details.

3. Method of attaching suspension system hangers to building structure as coordinated by installer.

4. Ceiling-mounted items including: light fixtures, air outlets and inlets, speakers, sprinklers, and other interfaces. Coordinate all appliances to be installed in ceiling system. Product selection shall be compatible with ceiling system.

5. Special moldings at walls, column penetrations, and other junctures of acoustical ceilings with adjoining construction.

6. Framing and support details for work supported by ceiling suspension system.

7. List of materials, dimensions, hanger fastenings and any special details.

8. Minimum drawing scale: 1/8" = 1'-0".

9. Provide full scale drawings of perforation patterns. Provide minimum 1"=1'-0" scale layout for each panel type showing perforation layout and orientation as required.

10. Shop drawings shall originate from manufacturer. Subcontractor drawings will not be acceptable, except to show attachment to structure.

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

11. Where requested by architect, provide engineered drawings with direction from consulting SE confirming design integrity to the satisfaction of specification requirement.

12. Coordinate with other work supported by, adjacent to or penetrating through the ceiling system.

D. Samples for Verification: Full-size units (or as specified below) of each type of ceiling assembly indicated; in sets for each color, texture, and pattern specified, showing the full range of variations expected in these characteristics. Submit samples for each type specified.

1. 12-inch square, (acoustical) metal pan units.

2. 12-inch long samples of each exposed molding or trim.

3. 12-inch long samples of each suspension component.

E. Qualification Data: For firms and persons specified in "Quality Assurance" (Section 1.5). Provide documents to demonstrate their capabilities and experience.

F. BIM (Building Information Modeling): Provide 3-D models (as applicable) of the ceiling system including, panels, suspension and necessary components to make the system complete; compatible with "NavisWorks" or other appropriate 3-D model interfacing software.

1.5 QUALITY ASSURANCE

A. Unless accepted otherwise by the Architect, use manufacturer and installers that employ a Quality Management System complying with the program described in ISO 9001-2008, or similar system.

B. Installer

1. To certify a minimum 5 years experience installing similar systems and scope to those specified or approved in written form by “Basis of Design” manufacturer.

2. Provide list of at least 5 successful installations with similar products and scope. Include names and contact numbers of Architect and employer for reference.

C. Manufacturer

1. To certify a minimum of 5 years experience as a manufacturing enterprise engaged in sales and production of similar products to those specified.

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

2. Provide support documentation including name and date of similar projects completed. Include names and contact numbers of Architect and employers for reference.

3. Manufacturer shall be single source, original equipment, engineering and design, and shall be the fabricator and supplier of appropriate major components. Broker / Package of components will not be acceptable.

D. Fire-Test-Response Characteristics: Provide metal ceilings that comply with the following requirements:

1. The panels are made from a non-combustible aluminum core and tested in accordance with ASTM E84. Class A (0-25 flame spread) Surface-burning characteristics of acoustical metal pan ceilings per IBC Chapter 8 Section 803.

E. Mock-Ups: Before releasing linear metal ceilings, if requested, construct mock-ups for each form of construction and finish required to verify selections made under sample submittals and to demonstrate aesthetic effects and qualities of materials and execution. Build mock-up to comply with the following minimum requirements, using materials indicated for completed work.

1. Locate mock-ups in the location and of the size indicated or, if not indicated, as directed by the Architect. Minimum mock-up size to be 10’x 10’ unless otherwise specified.

2. Notify Architect seven days in advance of the dates and times when mock-ups will be constructed.

3. Demonstrate the proposed range of aesthetic effects and workmanship.

4. Site Coordination Mock-up:

   a. For approval of assembly, sequence of installation, coordination of trades involved, including ceiling panel types and shapes.

   b. Sized large enough to include a minimum of 2 adjacent panels Demonstrating interface work of fire protection sprinklers, lighting, mechanical diffusers, anchoring method at steel structure; adjacent vertical wall; skylight and fascia, trim and accessories.

5. Obtain Architect’s approval of mock-ups before starting construction of acoustical laminate / metal pan ceilings. Submit detailed, ACAD shop drawing illustrating extent and scope of mock-ups. Do not proceed without approval of these drawings.

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

6. Maintain mock-ups during construction in an undisturbed condition as a standard for judging the completed work.

    a. When directed, demolish and remove mock-ups from project site

    b. Approved mock-ups in an undisturbed condition at the time of initial Acceptance may become part of the completed work, subject to Architect / Employer approval.

F. Pre-installation Conference: Conduct conference at Project site as directed by the project Architect.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver acoustical metal ceiling units and suspension system components in original, unopened packages clearly labeled with the following information: name of manufacturing source and location; product type, description and quantity; clients name and shipping address.

B. Store components in a fully enclosed space where they will be protected against physical damage from direct moisture, significant change in humidity, direct sunlight, significant change in temperature, surface contamination, and any other preventable cause.

C. Exercise care in handling components to prevent damage to the surfaces and edges and prevent distortion or other physical damage. Comply with prescribed stacking instructions to prevent damage to the components. Panel's protective layer to be removed only after installation is complete to help prevent panel surface damage.

1.7 PROJECT CONDITIONS

A. Environmental Limitations

1. Do not install acoustical metal pan ceilings until after spaces are enclosed and weather tight and after wet work and work above ceilings is complete and accepted by project Architect.

2. Maintain environmental conditions within limits recommended by manufacturer for optimum results.

    a. Maintain within a temperature range of 50-100 degrees.

    b. Maintain within a 20%-60% relative humidity.

B. Do not install products in exterior space unless the system has been specifically designed and approved for exterior application.

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

1.8 WARRANTY

A. Provide specified manufacturer warranty against defects in workmanship.

B. This warranty shall remain in effect for a minimum period of one (1) year from date of installation.

1.9 MAINTENANCE & EXTRA MATERIALS

A. Maintenance Instructions: Provide manufacturers standard maintenance and cleaning instructions for finishes provided.

B. Extra Materials: Furnish extra materials described below that match products installed, are packaged with protective covering for storage, and are identified with labels describing contents. Only typical system components are included with attic stock.

1. Metal Ceiling Pan Units: Full-size units equal to 1 percent (1%) of amount installed.

2. Ceiling Suspension System Components: Quantity of each grid and exposed component equal to 1 percent (1%) of amount installed.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Basis of design USG Ceilings Plus - 6711 E. Washington Blvd., Los Angeles, CA 90040. 800-822-3411 – www.ceilingsplus.com.

B. Supply specified item or comply with Section 01 60 00 “Substitutions”. Specified manufacturer’s standard of quality and manufacturing tolerances shall be the criteria for evaluating “equivalent” products. Substitution shall be equal to or of better quality than the specified product in the opinion of the Architect and / or owner.

2.2 MATERIALS

A. Ceiling Type MCG - Ceilings Plus “Barz" – Perforated – as required; “White Oak Arboreal” finish or approved equal.

1. All panels are to be manufactured from single sheets of aluminum selected for surface flatness, smoothness and freedom from surface blemishes where exposed to view in a finished unit. Do not use material where the exposed surface exhibit pitting, seam marks, roller marks, stains, discolorations, or variations in flatness exceeding those permitted by referenced standards for stretcher-leveled aluminum alloy sheets.

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

2. The individual linear members are to be die formed from a single sheet of aluminum, to dimensions as noted on drawings, with integral top return and end flanges. Each individual linear aluminum members shall be straight and square within 1/32" over 10'. Twisting or bowing of linear members is not acceptable. Objectionable deflection will not be tolerated. No indentations, marks or defacing of the exposed surface of the metal ceiling panel will be allowed. Roll forming shall not be allowed.

3. Panel material shall be primed aluminum sheet type 3105 series alloy that has up to 90% recycled content. It shall be machine stretcher-leveled and a minimum of .040" thickness, or greater if required, so that the panel deflection does not exceed L/360.

4. Individual linear members shall be factory attached to torsion spring backer supports (cassette assemblies). Each panel (cassette) assembly shall have minimum two backer supports (three backer supports for lengths greater than 60"), creating a modular panel assembly with minimum 1/4" reveals between panel ends.

5. No fasteners of any kind shall be visible on exposed face surfaces of ceilings or support tees. Down-light openings, sprinkler holes and miscellaneous penetrations shall be carefully field cut as required.

6. The Barz finish shall be:

    a. "**White Oak Arboreal**" PVC free, laminate that is permanently bonded to the aluminum sheet with formaldehyde free, water based adhesive of minimum bond strength of 425 psi @ 25 degrees C.

7. Linear member size shall be 1"wide x 3" deep, spacing shall be 3" between Barz per architectural drawings.

8. Panel sizes are 12" x 96" or sized as per architectural drawings.

9. End Profile: Linear Barz end joints are reveal condition unless specified otherwise integral enclosures. Linear members shall have integral ends in single piece. Exposed end shall have closure.

10. Barz to be non-perforated unless otherwise noted.

11. Sound-Absorptive Fabric Layer: Provide manufacturer's acoustic fabric sized to fit and laminated to concealed surface of panel. Material shall be both non-flammable and sound-absorptive.

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

a. Fire Class shall be Class A, with surface-burning characteristics for flame-spread rating of 25 or less and smoke developed rating of 50 or less. Provide independent accredited lab test results showing compliance with Class A rating as per ASTM E84.

b. Achieve absorption value up to .95 NRC. Provide independent accredited laboratory test results illustrating compliance with acoustical requirements as per ASTM C423.

c. Provide recycled cotton, “Ultrasorb” in sufficient thickness to achieve up to 0.95 NRC rating specified.

d. Install acoustical pads to fit the cavity of the linear members, unless otherwise directed by the Architect.

12. The plenum shall be 100% accessible. Every cassette must be removable. Progressive panel access is not acceptable. Heavy duty torsion springs and steel clip assemblies to be mounted to every cassette for downward access, without potential for damage to cassette face or hinge assembly. Hinge assembly shall be mounted to every cassette with minimum two flush to face, counter sunk chamfered fasteners. Attaching torsion spring directly to cassette with fastener will not be acceptable.

13. All Barz with visual exposure where row terminates shall have integral end returns.

14. Provide and install matching finish trim on each side of each suspended area (or as specified).

2.3 METAL SUSPENSION SYSTEMS. GENERAL

A. Metal Suspension Standard: Provide panel manufacturer's metal suspension systems of types, structural classifications, materials, and finishes indicated that comply with applicable ASTM C635 requirements.

1. Main and cross runners to be specified manufactures Standard “Heavy Duty” tee bar (as per ASTM C635).

2. Face of main and cross runners to be factory finished matte black unless known otherwise.

3. Face of main runners to be factory slotted to receive torsion springs.

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

4. Provide suspension system made from steel sheet with an average recycled content such that post-consumer recycled content plus one half or pre consumer content is not less than 25 percent.

B. Suspension Systems: Provide complete suspensions systems with main runners, cross runners, hangers, trim molding, seismic retention clips, load resisting struts and other suspension components required to support ceiling and other ceiling supported construction (some of these parts may be supplied by the installer).

C. Attachment Devices: Size for five times design load indicated in ASTM C 635, Table 1, "Direct-Hung", unless otherwise indicated (supplied by installer)

1. Provide anchor, for use in the particular application

2. Structural substrate, as indicated to support attachment device.

3. Anchors specified must provide corrosion resistance as per metal type and application.

a. Anchors into Concrete (with or without steel deck)

i. Pre-installed – Cast in Place Anchors
ii. Post-installed - Expansion Anchors
iii. Post-installed – Chemical Anchors
iv. Post-installed – Powder Actuated Fasteners

b. Anchors into Wood

i. 1/4" min diameter with 1-1/4" minimum penetration

c. Anchors into Steel

i. Clip or Clamp
ii. Shot Pin

d. Anchors into Steel Deck: This option requires special attention from both the "Structural Engineer of record" and the Professional Engineered retained to provide structural documents in order to coordinate detailing required to provide anchoring device.

4. "Direct-Hung" Suspensions Systems: System composed of main runners supported by hangers attached directly to building structure.

5. "Indirect-Hung" Suspension Systems: System composed of main runners connected to carrying channels that are attached by hangers to building structure, and complying with the following requirements:

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

a. Hangers: Type and metal standard with ceiling system manufacturer, sized to comply with structural classification indicated.

b. Wire Hangers, where applicable, Braces, and Ties: Provide wires complying with the following requirements:

i. Zinc-Coated Carbon-Steel Wire: ASTM A 641 (ASTM A 641M), Class 1 zinc coating, soft temper.

ii. Size: Select wire diameter so its stress at three times hanger design load (ASTM C635, Table 1, Direct Hung) will be less than yield stress of wire, but provide not less than 2mm diameter wire.

iii. Extruded Aluminum members shall comply with ASTM B209

c. Hanger Rods: Mild steel, zinc coated or protected with rust-inhibitive paint, 'Black" finish.

d. Flat Hangers: Mild steel, zinc coated or protected with rust-inhibitive paint, 'Black" finish.

e. Angle Hangers: Angles with legs not less than 22mm wide, formed with 1mm thick, galvanized steel sheet complying with ASTM A 653/A 653M, G90 coating designation, with bolted connections.

2.4 FINISHES, GENERAL

A. Comply with "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Provide manufacturers standard factory-applied finish for type of system indicated unless specified otherwise.

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

C. Appearance of finished work: Painted, 'Black" finish:

1. Noticeable variation in same piece is not acceptable.

PART 3- EXECUTION

3.1 EXAMINATION

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

A. Examine substrates and structural framing to which acoustical metal panels attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect installation and anchorage, and other conditions affecting performance of metal panel ceilings.

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

3.2 PREPARATION

A. Coordination: Furnish layouts for cast-in-place anchors, clips, and other ceiling anchors whose installation is specified in other Sections.

B. Measure each ceiling area and establish layout of acoustical metal pan units to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width units at borders, and comply with layout shown on reflected ceiling plans.

C. Survey substrate for wall attachment to assure squareness and proper elevation for wall panel installation.

3.3 INSTALLATION

A. General: Install linear Barz metal pan ceilings, per manufacturers shop drawings provided, per manufacturer's written instructions and to comply with publications referenced below.

1. ClSCA "Ceiling Systems Handbook.

2. Standard for Ceiling Suspension System Installations - ASTM C636.

3. Standard for Ceiling Suspension Systems Requiring Seismic Restraint - ASTM E580

4. IBC (International Building Code) standard for Seismic Zone for local area.

B. Suspend ceiling hangers from building's approved structural substrates and as follows:

1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, counter-splaying, or other equally effective means.

3. Where width of ducts and other construction within ceiling plenum produce hanger spacings that interfere with location of hangers at spacing required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.

4. Where used secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure; that are appropriate for substrate; and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.

5. Space hangers not more than 48 inches on center, along each member supported directly from hangers, unless otherwise indicated; and provide hangers not more than 8 inches from ends of each member.

6. Fine level grid to 1/8 inch in 10 feet from specified elevation(s), square and true.

7. Adjust suspension system runners so they are square (within .5 degree from 90 degrees) and securely interlocked with one another. Remove and replace dented, bent, or kinked members.

C. Secure bracing wires to ceiling suspension members and to supports acceptable to Architect / Engineer and or inspector. Suspend bracing from building's structural members and / or structural deck, as required for hangers, without attaching to permanent metal forms, steel deck, or steel deck tabs(unless directed otherwise).

D. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical metal pan. Method of edge trim attachment and design of edge trims to be approved by Architect.

1. Screw attach moldings to substrate at intervals not more than 18” O.C. and not more than 6” from ends, leveling with ceding suspension system to a tolerance of 1/8” in 10’. Miter corners accurately and connect securely.

2. Do not use exposed fasteners, including pop rivets, on moldings and trim without prior written approval or unless detailed otherwise.

E. Scribe and cut linear Barz metal panel units for accurate fit at penetrations by, other work through ceilings. Stiffen edges of cut units as required to eliminate evidence of buckling or variations in flatness exceeding referenced standards for stretcher-leveled metal sheet.

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

F. Install linear Barz metal panel units in coordination with suspension system.

1. Align joints in adjacent courses to form uniform, straight joints parallel to room axis in both directions, unless otherwise indicated. Install directionally patterned or textured panels in directions indicated on approved shop drawings. Panel-joints shall flow smoothly and in a straight line within 1/8” in 10’. Intersections shall be continuous.

2. Fit adjoining units to form flush, tight joints. Scribe and cut units for accurate fit at borders and around construction penetrating ceiling.

3. Remove panels from protective packaging only when space is completely clean and free of airborne particles. Use white cotton gloves for final installation of panels into grid system.

3.4 ADJUSTING AND CLEANING

A. Adjust ceiling components to provide a consistent finish and appearance in conformity with established tolerances and requirements.

B. Clean exposed surfaces of acoustical metal panel ceilings and walls. Comply with manufacturer's written instructions for cleaning and touch-up of minor finish damage.

C. Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage, including dented and bent units.

End of section

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

SECTION 10 1419

DIMENSIONAL LETTER SIGNAGE

PART 1 - GENERAL

1.1. SCOPE

A. Furnish letters and hardware necessary to install cast letters shown on drawings and herein specified.

1.2. RELATED SECTIONS

A. 04 1100 – Unit Masonry Assemblies

1.3. QUALITY ASSURANCE

A. Single Source Responsibility: Furnish products from one manufacturer for entire project.

B. Obtain all technical information from the manufacturer.

C. Manufacturer to have a minimum of 20 years experience in manufacturing letters.

D. Installer shall visit the site to gather all information on existing site conditions.

1.4. SUBMITTALS

A. Product Data: Submit manufacturer’s descriptive literature and product specifications for each product including catalogs, installation instructions and other descriptive material.

B. Provide Warranty on material and installation.

C. Provide samples letters and finishes for architects approval.

D. Provide statement by official indicating that they are a certified installation company.

1.5. PRODUCT HANDLING

A. Protect signage from damage before, during and after the installation.

1.6. PROJECT CONDITIONS

A. Coordination: Furnish samples of system(s) so installation can be coordinated with existing conditions and within onsite conditions.

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

B. Visit site and field measure prior to fabrication and delivery of materials.

1.7. WARRANTY

A. Letters should be guaranteed for the life of the business against defects.

PART 2 - PRODUCTS

2.1. ACCEPTABLE MANUFACTURERS

A. Gemini Incorporated
103 Mensing Way
Cannon Falls, MN 55009
Phone: 800-538-8377 or 507-263-3957
Fax: 800-421-1256 or 507-263-4887
Email: sales@signletters.com
Web: www.signletters.com

B. Approved equal.

2.2. PRODUCT DESCRIPTION

A. Letters shall be made of cast metal.

B. Letter shall be ROFFE letter-style, see interior elevations for size and layout.

C. Refer to Elevations on Drawings for mounting locations and dimensions. A mounting template designating stud locations is required for mounting on a concrete block surface.

2.3. MATERIALS

A. Aluminum

2.4. FINISHES

A. Clear Anodized, sanded return, #514 aluminum alloy.

2.5. MOUNTING HARDWARE

A. Cast metal letters have threaded stud bosses for stud insertion.

PART 3 - EXECUTION

3.1. EXAMINATION

A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specifications Sections, apply to this section.
B. Refer to Division 01 8113 for LEED Sustainability Requirements.

A. Examine the installation area and note any detrimental or hazardous work conditions. Notify contracting officer or inspector of the detrimental work conditions.

B. Do not proceed with installation until conditions are corrected.

3.2. SURFACE PREPARATION

A. Surface should be thoroughly cleaned and free of debris before installation.

B. Remove or repair articles that may damage letters after installation, including loose parts on the structure.

3.3. INSTALLATION

A. Install letters as recommended by the manufacturer.

B. A qualified installer shall install cast letters.

3.4. INSPECTION

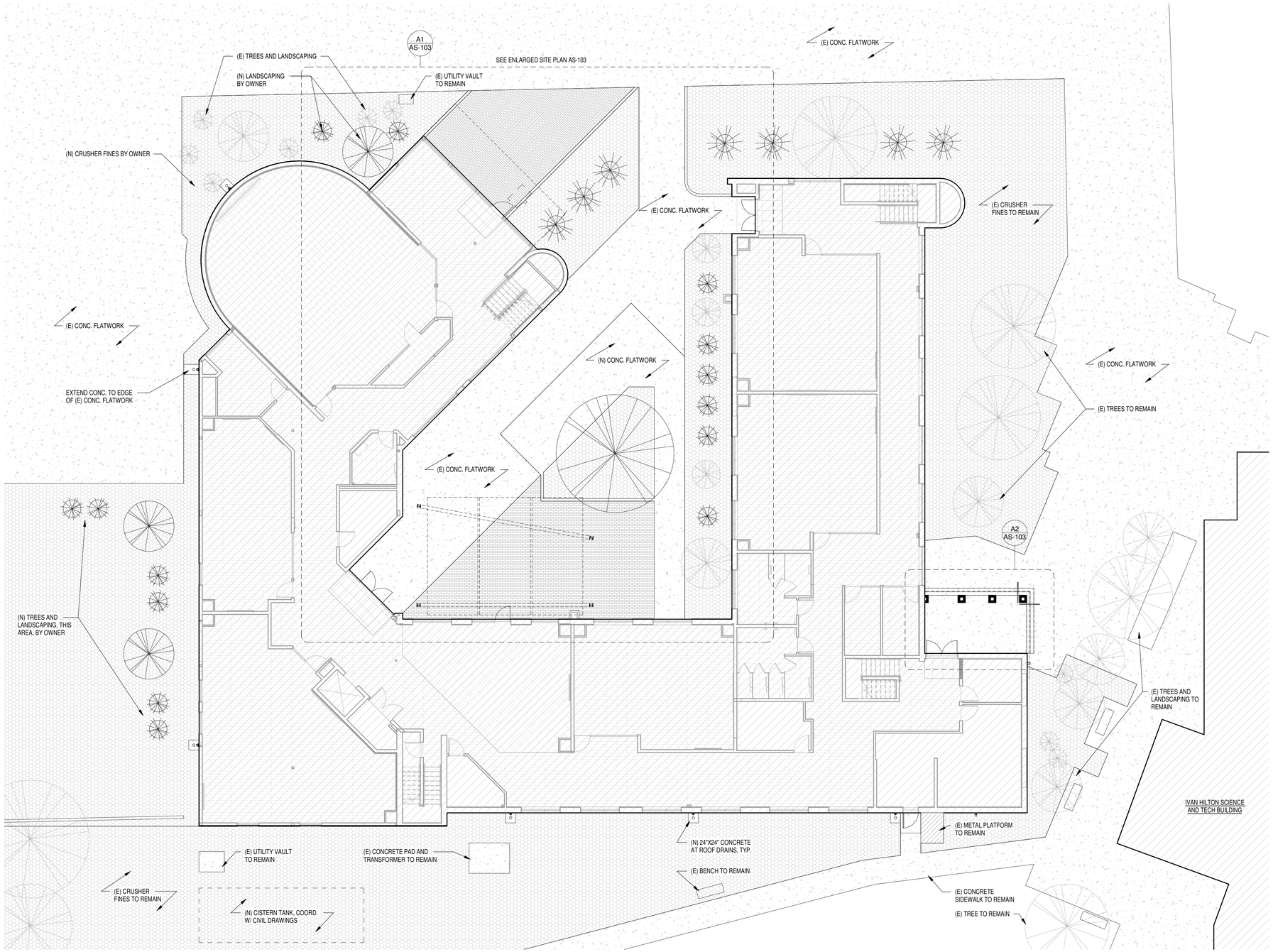
A. Visually inspect cast letters for any signs of poor installation, including loose screws, fasteners and unremoved debris.

B. Immediately correct and repair as necessary.

END OF SECTION

GENERAL NOTES:

2
1. (N) TREES AND LANDSCAPING, PROVIDED BY AND INSTALLED BY OWNER.
2. ALL CONCRETE SIDEWALKS AND OTHER FLATWORK TO BE 4" THICK, 3000 PSI CONC. OVER COMPACTED EARTH INCLUDE WWF THROUGHOUT, 6X6XW1.4XW1.4 WWF, UNO.
3. STUCCO BY OTHERS, GC TO REPAIR ANY DAMAGE IN EXTERIOR WALLS, INFILL, PREP ANY NEW WALLS, AND OTHERWISE COMPLETE WORK REQUIRED FOR STUCCO AND STUCCO RESURFACING. GC TO COORDINATE WITH OWNER AND STUCCO CONTRACTOR FOR COMPLETE REQUIREMENTS AND TIMING OF STUCCO WORK.



A1 SITE PLAN
SCALE: 1" = 10'-0"

LEGEND

- CONCRETE FLATWORK
- CRUSHER FINES
- BRICK PAVERS

baker AD

505 CENTRAL AVE NW, SUITE E
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www.bakerAD.com

STATE OF NEW MEXICO
MARK REA BAKER
NO. 3226
07/15/2022
REGISTERED ARCHITECT

CONSULTANTS

SININGER HALL RENOVATION

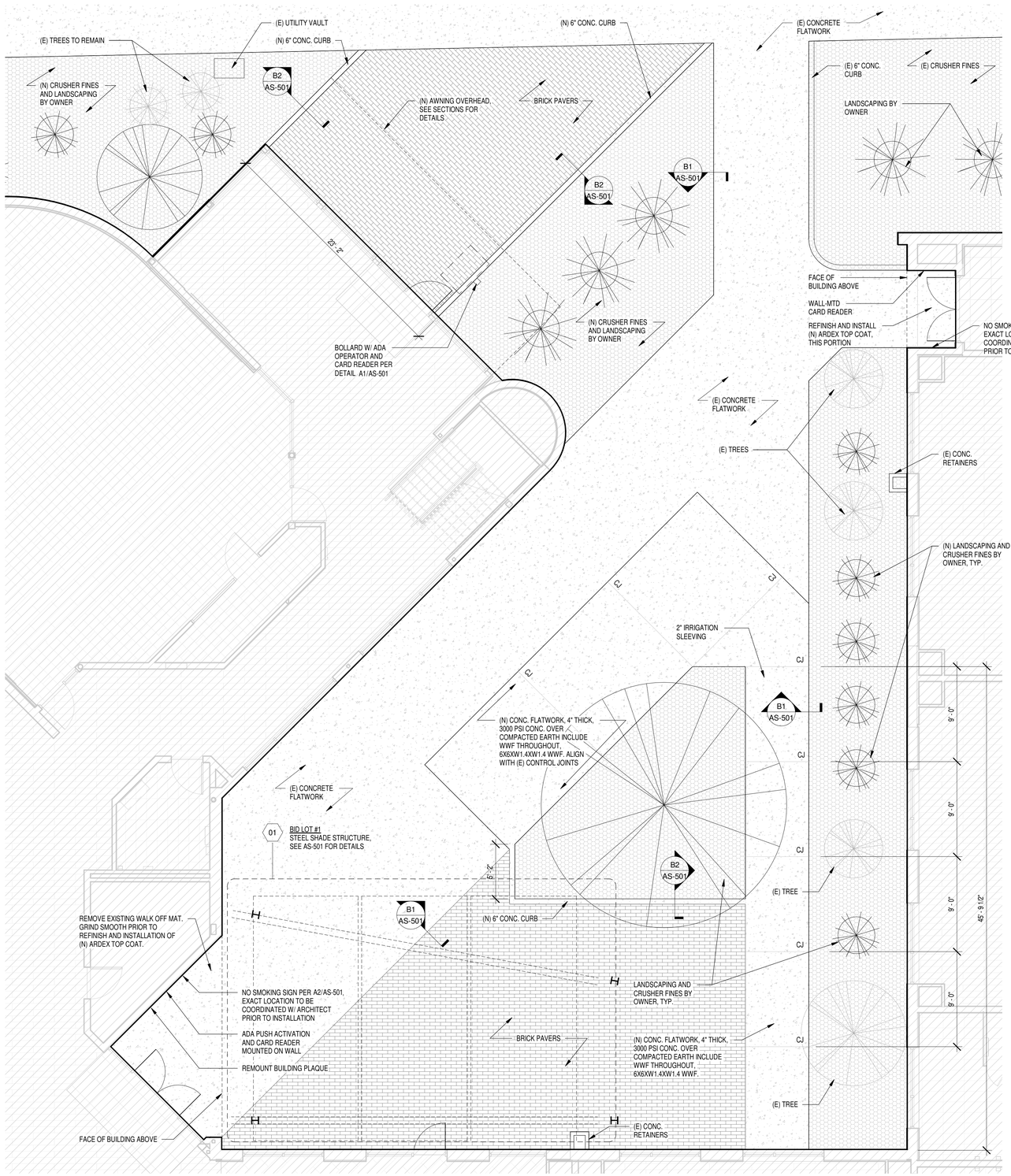
NEW MEXICO HIGHLANDS UNIVERSITY

MARK	DATE	DESCRIPTION
2	08/24/22	Addenda 2

B_AD PROJECT #	2104
FILE:	SININGER_CF.RVT
DATE:	7/15/2022
DRAWN BY:	CM / RP
CHECKED BY:	TS

SITE PLAN

AS-102
SHEET _ OF _



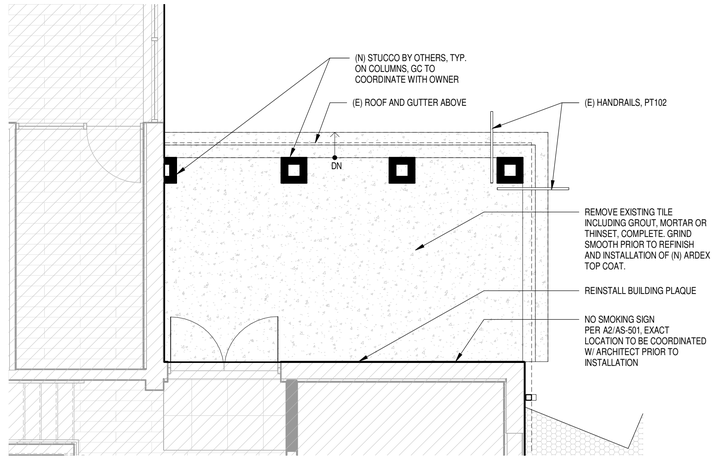
LEGEND

- CONCRETE FLATWORK
- CRUSHER FINES
- BRICK PAVERS

GENERAL NOTES:

2

1. (N) TREES AND LANDSCAPING, PROVIDED BY AND INSTALLED BY OWNER.
2. ALL CONCRETE SIDEWALKS AND OTHER FLATWORK TO BE 4" THICK, 3000 PSI CONC. OVER COMPACTED EARTH INCLUDE WWF THROUGHOUT, 6X6XW1.4XW1.4 WWF, UNO.
3. PRESERVE WALL PLAQUES AT BUILDING ENTRANCES. CAREFULLY REMOVE PRIOR TO RESTUCCO, GC TO COORDINATE STUCCO BY OTHERS AND REINSTALL WALL PLAQUES



A1 ENLARGED COURTYARD PLAN
SCALE: 3/16" = 1'-0"

A2 ENLARGED SOUTH ENTRY
SCALE: 1/4" = 1'-0"

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STATE OF NEW MEXICO
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2	08/24/22	Addenda 2

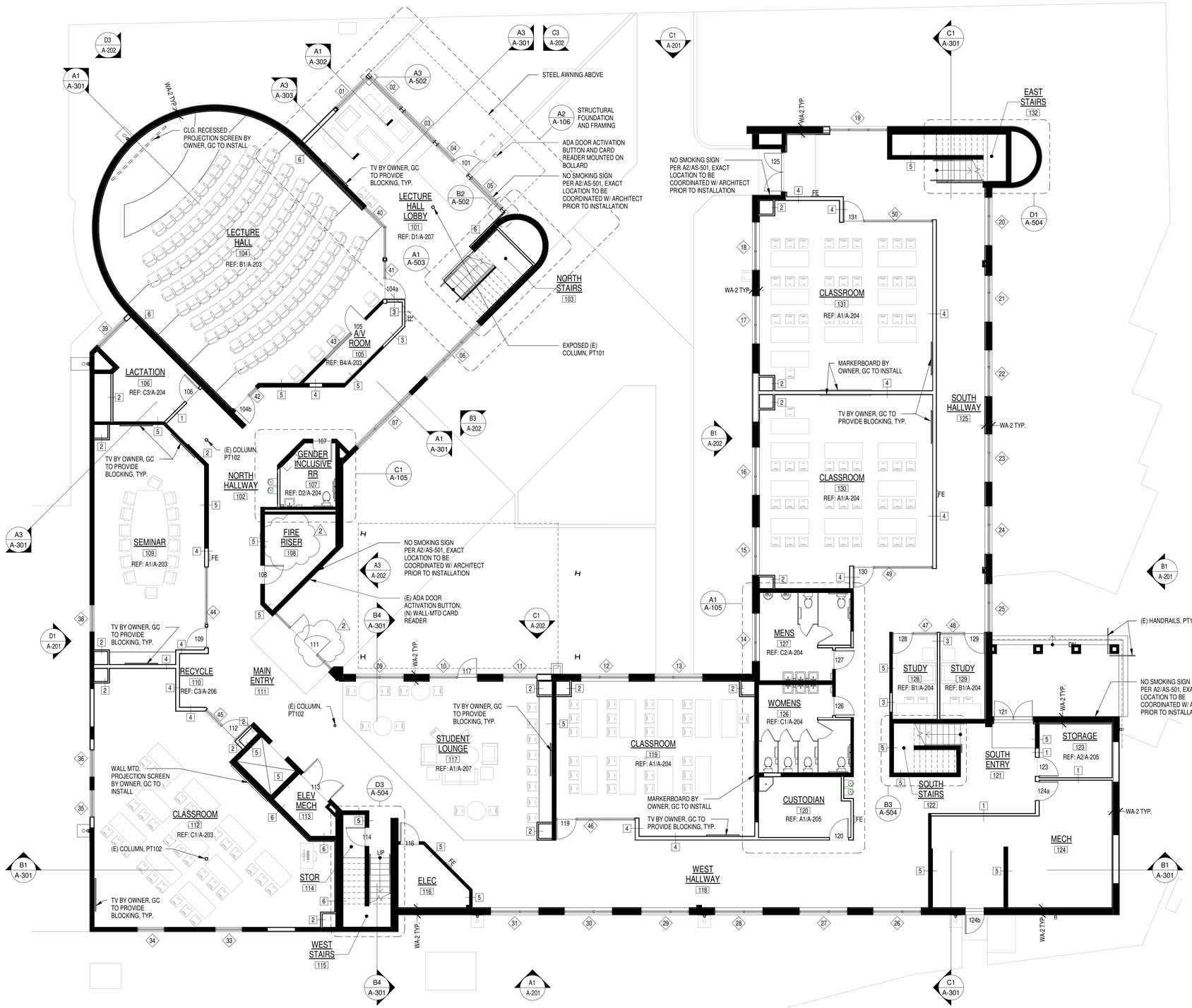
B_AD PROJECT #	2104
FILE:	SININGER_CF.RVT
DATE:	7/15/2022
DRAWN BY:	CM / RP
CHECKED BY:	TS

ENLARGED SITE PLAN

AS-103
SHEET _ OF _

GENERAL NOTES:

1. PROVIDE BLOCKING IN WALL FOR WALL MOUNTED TVS AND MONITORS.
2. STUCCO BY OTHERS, GC TO REPAIR ANY DAMAGE IN EXTERIOR WALLS, INFILL, PREP ANY NEW WALLS, AND OTHERWISE COMPLETE WORK REQUIRED FOR STUCCO AND STUCCO RESURFACING. GC TO COORDINATE WITH OWNER AND STUCCO CONTRACTOR FOR COMPLETE REQUIREMENTS AND TIMING OF STUCCO WORK.
3. INSTALL CONTINUOUS INSULATION IN FURROUTS ACCORDING TO WA-2 WHERE NOTED ON FLOOR PLANS.



A1 FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

WALL LEGEND

- 1 HOUR RATED WALL
- NEW WALL
- (E) WALL
- FE — SEMI-RECESSED FIRE EXTINGUISHER

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B_AD PROJECT #	2104
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CHECKED BY:	TS

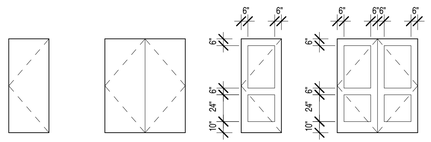
FIRST FLOOR PLAN

A-101

SHEET _ OF _

DOOR SCHEDULE

MARK	HT	W	THK	Door Material	Frame Material	GLZ	HW Set	Electrified	EL	FINISH	NOTES
101	7' - 0"	3' - 0"	0' - 2"	ALUMINUM, BRONZE ANODIZED	ALUM	Yes	3.0	Yes	D-C	BRONZE ANODIZED	ADA DOOR ACTIVATION BUTTON AND CARD READER ON BOLLARD, COORDINATE WITH ELEC. AND ACCESS CONTROLS
104a	7' - 1"	3' - 1 11/16"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		5.0	No	D-A	ST101	
104b	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		5.0	No	D-A	ST101	
105	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		7.0	No	D-A	ST101	
106	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		13.0	No	D-A	ST101	
107	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		13.0	No	D-A	ST101	(E) DOOR LOCATION, VIF DOOR SIZE
108	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	(E) DOOR LOCATION, VIF DOOR SIZE
109	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
111	7' - 0"	6' - 0"	0' - 2"	ALUMINUM, BRONZE ANODIZED	ALUM	Yes	1.1	Yes	D-D	BRONZE ANODIZED	(E) ADA DOOR ACTIVATION BUTTON, (N) CARD READER, COORDINATE WITH ELEC. AND ACCESS CONTROLS
112	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		12.0	No	D-A	ST101	
113	7' - 0"	6' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		6.1	No	D-B	ST101	(E) DOOR LOCATION, VIF DOOR SIZE
114	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	(E) DOOR LOCATION, VIF DOOR SIZE
116	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		6.2	No	D-A	ST101	(E) DOOR LOCATION, VIF DOOR SIZE
117	7' - 0"	3' - 0"	0' - 2"	ALUMINUM, BRONZE ANODIZED	ALUM	Yes	4.0	Yes	D-C	BRONZE ANODIZED	
119	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		11.0	No	D-A	ST101	
120	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	
121	7' - 0"	6' - 0"	0' - 2"	ALUMINUM, BRONZE ANODIZED	ALUM	Yes	2.0	Yes	D-D	BRONZE ANODIZED	CARD READER, COORDINATE WITH ELEC. AND ACCESS CONTROLS
123	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	
124a	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	
124b	7' - 0"	3' - 0"	0' - 1 3/4"	HOLLOW METAL	HM				D-A	PT104	(E) DOOR TO REMAIN, NEW PAINT TO MATCH STUCCO 1
125	7' - 0"	6' - 0"	0' - 2"	ALUMINUM, BRONZE ANODIZED	ALUM	Yes	1.0	Yes	D-D	BRONZE ANODIZED	CARD READER, COORDINATE WITH ELEC. AND ACCESS CONTROLS
126	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		14.0	No	D-A	ST101	
127	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		14.0	No	D-A	ST101	
128	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
129	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
130	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		11.0	No	D-A	ST101	
131	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		11.0	No	D-A	ST101	
202	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		11.0	No	D-A	ST101	
203	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		9.0	No	D-A	ST101	
204	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
205	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
206	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
207	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	
208	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		11.0	No	D-A	ST101	
209	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	
210	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		9.0	No	D-A	ST101	
211	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		10.0	No	D-A	ST101	
212	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
213	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		8.0	No	D-A	ST101	
214	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
215	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
217	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		9.0	No	D-A	ST101	
218	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
219	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
220	7' - 0"	2' - 6"	0' - 2"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	
221	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
222	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
223	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
224	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
225	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
226	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
227	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		13.0	No	D-A	ST101	
228	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	
230	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	
231	7' - 0"	2' - 8"	0' - 2"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	(E) DOOR LOCATION, VIF DOOR SIZE
233	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		14.0	No	D-A	ST101	
234	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		14.0	No	D-A	ST101	
235	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
236	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
237	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
238	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
239	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
240	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
241	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
242	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
243	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	HM		8.0	No	D-A	ST101	
244	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
246	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
247	7' - 0"	3' - 0"	0' - 1 3/4"	SOLID CORE WOOD	ALUM		8.0	No	D-A	ST101	
248	7' - 0"	2' - 8"	0' - 2"	SOLID CORE WOOD	HM		6.0	No	D-A	ST101	(E) DOOR LOCATION, VIF DOOR SIZE



D-A D-B D-C D-D

NOTE: SEE SPECIFICATION 08 7100 FOR HARDWARE SCHEDULES.
NOTE: ALL ACCESSIBLE DOORS SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE. MAXIMUM OPERATING FORCE FOR ALL DOORS SHALL BE 5 LBS. PANIC HARDWARE SHALL REQUIRE NO MORE THAN 15 LBS OF PRESSURE TO RELEASE DOOR LATCH. DOOR HARDWARE SHALL BE MOUNTED A MINIMUM OF 34" AND A MAXIMUM OF 48" AFF.
NOTE: GC TO VERIFY ALL ROUGH OPENINGS PRIOR TO FRAME FABRICATION, AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
NOTE: PAINT ALL HM FRAMES TO MATCH ADJACENT WALL PAINT, SEMI-GLOSS FINISH U.N.O.
NOTE: USE TEMPERED GLAZING AT ALL LOCATIONS REQUIRED BY CODE.
NOTE: NEW STOREFRONT GLAZING AND DOORS MUST COMPLY WITH IECC 2009 TABLE 502.3.

NOTE: ALL WOOD DOORS TO BE NATURAL BIRTCH, ROTARY CUT, CLEAR SEALER.
NOTE: ALL HM FRAMES TO BE KNOCK DOWN.
NOTE: ALL HM FRAMES TO BE GROUTED.
NOTE: PROVIDE DOOR STOP BY IVES, OR EQUAL, AT ALL SWINGING DOORS.
NOTE: USE FALCON VACANCY INDICATOR DEADBOLT D271 ON ALL SINGLE OCCUPANCY RESTROOM DOORS.
NOTE: EXIT DOORS SHALL HAVE SIGN "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS"
NOTE: HARDWARE FINISH TO BE BRUSHED STAINLESS OR OTHERWISE A SILVER FINISH.
NOTE: SPECIFIC HARDWARE COMPONENTS SHALL BE SPECIFIED BY GC AND/OR DOOR SUPPLIER. GC AND/OR DOOR SUPPLIER SHALL PROVIDE ALL HARDWARE NECESSARY FOR A COMPLETE JOB.

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www.bakerAD.com

STATE OF NEW MEXICO
MARK REA BAKER
NO. 3226
07/15/2022
REGISTERED ARCHITECT

CONSULTANTS

SININGER HALL
RENOVATION

NEW MEXICO HIGHLANDS UNIVERSITY

MARK	DATE	DESCRIPTION
2	08/24/22	Addenda 2

B_AD PROJECT # 2104
FILE: SININGER_CF.RVT
DATE: 7/15/2022
DRAWN BY: CM / RP
CHECKED BY: TS

DOOR SCHEDULE

A-601
SHEET _ OF _

FINISH SELECTIONS

REF. #	DESCRIPTION	PRODUCT INFORMATION	SHEEN	VENDOR	PHONE/WEBSITE	COMMENTS
	PAINT					
PT101	OFF WHITE WALLS, ETC.	QS6P, "GULL WHITE"	SATIN U.N.O.	DUNN EDWARDS	(888) 337.2468 / WWW.DUNNEDWARDS.COM	SPEC SECTION 09 9100
PT102	BLACK CEILINGS, EXPOSED CEILINGS, TRIM, METAL, ETC.	DE6371, "BLACK JACK"	FLAT ON CEILINGS U.N.O., SEMI-GLOSS ON STEEL U.N.O.	DUNN EDWARDS	(888) 337.2468 / WWW.DUNNEDWARDS.COM	SPEC SECTION 09 9100
PT103	NMHU PURPLE ACCENT		SATIN U.N.O.			SPEC SECTION 09 9100, COORDINATE COLOR W/ OWNER
PT104	WHITE TO MATCH STUCCO		SEMI-GLOSS U.N.O.			SPEC SECTION 09 9100, STUCCO BY OTHERS, COORDINATE W/ OWNER
	MISCELLANEOUS					
M101	STAINLESS STEEL	18 GAGE STAINLESS STEEL SHEETS ADHERED TO GYP. BD. WITH CONSTRUCTION ADHESIVE				
M102	ACOUSTIC PANEL, FABRIC WRAPPED	FR701 2100, 538 "SILVER PAPIER"		QUIET TECHNOLOGY SYSTEMS	(505) 254.9000 / WWW.QTECHSYS.COM	SPEC SECTION 09 8400
M103	SOLID SURFACE	COOL GRAY BY CORIAN SOLID SURFACE		CORIAN	(888) 715.3007 / WWW.SOLIDSURFACE.COM	
M104	FRP	STANDARD FRP, P430N MEDIUM GREY W/ TRIM ACCESSORIES		MARLITE	(330) 343.6621 / WWW.MARLITE.COM	SPEC SECTION 09 7720
						CLEAR SEALER, 2 COATS
	STAINS					
ST101	DOOR STAIN	QUICK 15 GLOSS VARNISH QT, OR EQUAL		DUNN EDWARDS	(888) 337.2468 / WWW.DUNNEDWARDS.COM	
ST102	MISC.	OIL BASED CLEAR COAT		DUNN EDWARDS	(888) 337.2468 / WWW.DUNNEDWARDS.COM	
	PLASTIC LAMINATE					
PL101	CASEWORK	7965K-12, "WALNUT HEIGHTS"		WILSONART	(800) 433.3222 / WWW.WILSONART.COM	SPEC SECTION 09 6800
	TILE					
T101	CERAMIC TILE, WALLS, TOILET ROOMS, 4" X 16"	COLOR WHEEL LINEAR "ARCTIC WHITE" 0190		DALTILE	(505) 884.0017 / WWW.DALTILE.COM	STACK BOND, HORIZONTAL, USE GT101
T102	CERAMIC TILE, FLOOR, TOILET ROOMS, 12" X 24"	NATURAL HUES, "CLOUD" QH32		DALTILE	(505) 884.0017 / WWW.DALTILE.COM	STACK BOND, HORIZONTAL, USE GT102
T103	CERAMIC TILE, STAIRCASES, 12" X 24"	NATURAL HUES, "CLOUD" QH32		DALTILE	(505) 884.0017 / WWW.DALTILE.COM	STACK BOND, HORIZONTAL, USE GT102
T104	CERAMIC TILE, BACKSPLASH, 4" X 16"	COLOR WHEEL LINEAR "ORAGNE BURST" 1097		DALTILE	(505) 884.0017 / WWW.DALTILE.COM	STACK BOND, HORIZONTAL, USE GT101
T105	CERAMIC TILE, WALLS, TOILET ROOMS 4" X 16"	COLOR WHEEL LINEAR "MUSTARD" 1012		DALTILE	(505) 884.0017 / WWW.DALTILE.COM	STACK BOND, HORIZONTAL, USE GT101
	GROUT					
GT101	RESTROOM WALL TILE GROUT	COLOR #386 "OYSTER GRAY"		CUSTOM BUILDING PRODUCTS	(800) 282.8786 / WWW.CUSTOMBUILDING PRODUCTS.COM	
GT102	RESTROOM FLOOR AND STAIRCASE TILE GROUT	COLOR #546 "CAPE GRAY"		CUSTOM BUILDING PRODUCTS	(800) 282.8786 / WWW.CUSTOMBUILDING PRODUCTS.COM	
	MATERIALS BY OTHERS, GC TO COORDINATE (SHOWN FOR REFERENCE)					
	STUCCO					
STUCCO 1	SCRATCH & BROWN W/ POWERFLEX FINISH & REFINISHING	94330 STO "WHITE", 80727 STO BTS PLUS & 80920 / 80919 STO MESH FOR REFINISHING		CHAPARREL MATERIALS	(800) 221.2397 / WWW.STOCORP.COM	SPEC SECTION 09 2423
STUCCO 2	STUCCO ACCENT COLOR TO MATCH NMHU PURPLE			CHAPARREL MATERIALS	(800) 221.2397 / WWW.STOCORP.COM	SPEC SECTION 09 2423
	CARPET					
CPT101	CARPET TILE, 18" X 36"	COLOR AT WORK II 5T444, COLOR: PURPLE BLACK 07979		SHAW	(800) 441.7429 / WWW.SHAWFLOORS.COM	SPEC SECTION 09 6800, HERRINGBONE PATTERN
CPT102	WALK-OFF TILE	ENTRY LEVEL, BLACK 7187		INTERFACE	(800) 634.6032 / WWW.INTERFACE.COM	SPEC SECTION 09 6800
	FLOORING					
F101	VINYL PLANKS - 6" X 36"	STYLE: "UNCOMMON GROUND" 0188V, COLOR: "TEAK GREEN" 02544		SHAW	(800) 441.7429 / WWW.SHAWFLOORS.COM	MONOLITHIC INSTALLATION - DIRECT GLUE
	BASEBOARD					
B101	RESILIENT BASE, TYPICAL	COLOR 20 CHARCOAL		JOHNSONITE	(440) 543.8916 / WWW.JOHNSONITE.COM	

NOTE: DESCRIPTIONS ARE NOT EXHAUSTIVE & ARE INTENDED AS GENERAL LOCATIONS. REFER TO ELEVATIONS FOR SPECIFIC LOCATIONS. IN CASE OF DISCREPANCIES, ELEVATIONS SHALL OVERRIDE DESCRIPTIONS.
NOTE: USE SATIN SHEEN ON INTERIOR WALS, FLAT ON CEILINGS AND EXPOSED STRUCTURES AND SYSTEMS, AND USE SEMIGLOSS ON STEEL ELEMENTS SUCH AS HM DOOR FRAMES AND COLUMNS.
NOTE: ALL HM FRAMES TO BE PAINTED TO MATCH ADJACENT WALL COLOR.

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SININGER HALL RENOVATION

NEW MEXICO HIGHLANDS UNIVERSITY

MARK	DATE	DESCRIPTION
2	08/24/22	Addenda 2
1	07/28/22	Addenda 1

B_AD PROJECT # 2104
FILE: SININGER_CF.RVT
DATE: 7/15/2022
DRAWN BY: CM / RP
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FINISH SCHEDULE

A-603
SHEET _ OF _