DOCUMENT 00 91 03 ADDENDUM NO. 3

PROJECT: 2024 Smith and Spillane MS Renovations

BID DATE: Thursday, February 20, 2025 (no Change)

FROM: Carolina Weitzman, A.I.A. Natex Corporation Architects 447 Heights Blvd, Houston, TX 77007

TO: Prospective Bidders

This Addendum forms a part of the Bidding Documents and will be incorporated into Contract Documents. Insofar as the Project Manual or Drawings or both are inconsistent, this Addendum governs. Acknowledge receipt of the Addendum by inserting its number into the Proposal Form. **FAILURE TO DO SO WILL SUBJECT BID TO DISQUALIFICATION**.

PART 1 CHANGES TO PROJECT MANUAL

- 1. SECTION 08 71 00 DOOR HARDWARE
 - a. Add section to project manual
- 28 31 00 INTRUSION DETECTION SYSTEM (IDS)
 a. Replace this section in its entirety with the attached. Section was omitted in Addendum 02.

PART 2 CHANGES TO DRAWINGS

SMITH MS

- 1. M0.03 MECHANICAL DEMOLITION FIRST FLOOR PLAN AREA 'C'
 - a. Refer to revised plan for additional demolition in kiln room.
- M0.04 MECHANICAL DEMOLITION FIRST FLOOR PLAN AREA 'D'
 a. Refer to revised plan for additional ductwork demolition.
- M1.00 MECHANICLA SITE PLAN
 a. FIELD STORAGE Relocated EF-SB-1.
- M2.03 MECHANICAL FIRST FLOOR PLAN AREA 'C'
 a. Refer to revised plan for kiln room exhaust.
- 5. M2.04 MECHANICAL FIRST FLOOR PLAN AREA 'D' a. Refer to revised plan for revised ductwork.
- M3.01 MECHANICAL ENLARGED FLOOR PLAN

 Refer to revised plan for piping to AHU-5D.
- 7. M4.01 MECHANICAL DETAILS
 - a. Refer to revised plan for kiln exhaust detail.

ADDENDUM NO. 3 00 91 03-1 02-14-2025

8.	M5.01 MECHANICAL SCHEDULES a. Refer to revised plan for schedule for EF-1.
9.	E1.03 – ELECTRICAL SITE PLAN a. FIELD STORAGE –EF-SB-1 Power relocated.
10.	E2.01 - ELECTRICAL LIGHTING FIRST FLOOR PLAN -AREA 'A' a. Lighting layout revisions as noted.
11.	E2.02 - ELECTRICAL LIGHTING FIRST FLOOR PLAN -AREA 'B' a. Lighting layout revisions as noted.
12.	E2.03 - ELECTRICAL LIGHTING FIRST FLOOR PLAN -AREA 'C' a. Lighting layout revisions as noted.
13.	E2.04 - ELECTRICAL LIGHTING FIRST FLOOR PLAN -AREA 'D' a. Lighting layout revisions as noted.
14.	E2.06 - ELECTRICAL LIGHTING FIRST FLOOR PLAN -AREA 'F' a. Lighting layout revisions as noted.
15.	E3.03 - ELECTRICAL POWER FIRST FLOOR PLAN - AREA 'C' a. Power provided for new Kiln EF-1.
16.	P1.03 – PLUMBING SITE PLAN a. Refer to attached new sheet for new site sanitary connection.
17.	T0.00 – TECHNOLOGY NOTES AND LEGENDS a. Refer to revised plan for fire alarm remote power supply symbol.
18.	T1.02 – TECHNOLOGY COMPOSITE 1 ST FLOOR PLAN a. Refer to revised plan for fire alarm remote power supply locations.
19.	T1.03 – TECHNOLOGY COMPOSITE 2 ND FLOOR PLAN a. Refer to revised plan for fire alarm remote power supply locations.
20.	T2.11 – TECHNOLOGY SECOND FLOOR PLAN – AREA 'B' a. Refer to revised plan for additional drop location and ceiling drop clarification.
SPILLANE M	5
1.	M0.03 MECHANICAL DEMOLITION FIRST FLOOR PLAN – AREA 'C'

- a. Refer to revised plan for additional demolition in kiln room.
- 2. M0.04 MECHANICAL DEMOLITION FIRST FLOOR PLAN AREA 'D' a. Refer to revised plan for additional ductwork demolition.
- M1.00 MECHANICLA SITE PLAN

 a. FIELD STORAGE Relocated EF-SB-1.
- 4. M1.03 MECHANICAL FIRST FLOOR PLAN AREA 'C'
 - a. Refer to revised plan for kiln room exhaust.

ADDENDUM NO. 3 00 91 03-2 02-14-2025 5. M1.04 MECHANICAL FIRST FLOOR PLAN - AREA 'D' a. Refer to revised plan for revised ductwork. 6. M3.01 MECHANICAL DETAILS Refer to revised plan for kiln exhaust detail. а 7. M4.01 MECHANICAL SCHEDULES Refer to revised plan for schedule for EF-1. a. 8. M5.01 MECHANICAL CONTROLS FIRST FLOOR PLAN - AREA A, B, C, D Refer to revised plan for additional controls scope. a. 9. M5.02 MECHANICAL CONTROLS FIRST FLOOR PLAN - AREA E,F,G,H,J Refer to revised plan for additional controls scope. a. M5.03 MECHANICAL CONTROLS SECOND FLOOR PLAN 10. a. Refer to revised plan for additional controls scope. 11. M5.04 MECHANICAL CONTROLS PLAN - CENTRAL PLANT Refer to revised plan for additional controls scope. a. 12. M5.05 MECHANICAL CONTROLS SCHEDULES Refer to new sheet for existing equipment schedules. a. 13. E1.01 - ELECTRICAL SITE PLAN FIELD STORAGE - EF-SB-1 Power relocated. a. E2.01 - ELECTRICAL LIGHTING FIRST FLOOR PLAN -AREA 'A' 14. Lighting layout revisions as noted. 15. E2.02 - ELECTRICAL LIGHTING FIRST FLOOR PLAN -AREA 'B' a. Lighting layout revisions as noted. 16. E2.03 - ELECTRICAL LIGHTING FIRST FLOOR PLAN -AREA 'C' Lighting layout revisions as noted. a. 17. E2.04 - ELECTRICAL LIGHTING FIRST FLOOR PLAN -AREA 'D' Lighting layout revisions as noted. E2.06 - ELECTRICAL LIGHTING FIRST FLOOR PLAN -AREA 'F' 18. Lighting layout revisions as noted. a. 19. E2.08 - ELECTRICAL LIGHTING FIRST FLOOR PLAN -AREA 'H' Lighting layout revisions as noted. a. 20. E2.10 - ELECTRICAL LIGHTING SECOND FLOOR PLAN -AREA 'A' Lighting layout revisions as noted. a. 21. E2.11 - ELECTRICAL LIGHTING SECOND FLOOR PLAN -AREA 'B' Lighting layout revisions as noted. a. 22. E3.03 - ELECTRICAL POWER FIRST FLOOR PLAN -AREA 'C' Power provided for new Kiln EF-1. а

> ADDENDUM NO. 3 00 91 03-3 02-14-2025

23.	E3.06 - ELECTRICAL POWER FIRST FLOOR PLAN -AREA 'F' a. Power provided for electronic trap primer in BOILER C109.
24.	E5.02 - ELECTRICAL PANEL SCHEDULES a. Changes made to panel LJ1.
25.	T0.00 – TECHNOLOGY NOTES AND LEGENDS a. Refer to revised plan for fire alarm remote power supply symbol.
26.	T0.04 – TECHNOLOGY DEMOLITION FIRST FLOOR PLAN – AREA 'D' a. Refer to revised plan for additional drops to be removed in cafeteria.
27.	T0.05 – TECHNOLOGY DEMOLITION FIRST FLOOR PLAN – AREA 'E' a. Refer to revised plan for additional drops to be removed.
28.	T0.11 – TECHNOLOGY DEMOLITION SECOND FLOOR PLAN – AREA 'B' a. Refer to revised plan for additional drops to be removed.
29.	T1.00 – TECHNOLOGY COMPOSITE FLOOR PLANS a. Refer to revised plan for fire alarm remote power supply locations.
30.	T2.03 – TECHNOLOGY FIRST FLOOR PLAN – AREA 'C' a. Refer to revised plan for additional drop location and ceiling drop clarification.
31.	T2.04 – TECHNOLOGY FIRST FLOOR PLAN – AREA 'D' a. Refer to revised plan for additional drop locations and ceiling drop clarification.
32.	T2.05 – TECHNOLOGY FIRST FLOOR PLAN – AREA 'E'

Refer to revised plan for additional drop location and ceiling drop clarification. a.

PART 3 CLARIFICATIONS

PART 4 PRIOR APPROVALS

1. Section 133419 Pre-Engineered Building – Red Dot Building is an approved manufacturer. Compliance to all other aspects of specification is applies.

END OF ADDENDUM NO. 3

APPROVED FOR ISSUE:

By M. Carolina Weitzman, principal, NATEX Architects

END OF DOCUMENT

Total No. of Pages to Addendum No.2: <u>125</u> pages.

ADDENDUM NO. 3 00 91 03-4 02-14-2025

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. Cylinders specified for doors in other sections.
- C. Related Sections:
 - 1. Division 08 Section "Door Hardware Schedule".
 - 2. Division 08 Section "Hollow Metal Doors and Frames".
 - 3. Division 08 Section "Interior Aluminum Doors and Frames".
 - 4. Division 08 Section "Plastic Laminate Faced Wood Doors".
- 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. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards:
 - 1. ANSI/BHMA Certified Product Standards A156 Series
 - 2. UL10C Positive Pressure Fire Tests of Door Assemblies

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. Proof of Certification: Provide copy of manufacturer(s) official certification or accreditation document indicating proof of status as a qualified installer of Windstorm assemblies.
- E. 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.
- F. 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.
- G. 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 Submittals.

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. Installer Qualifications: A minimum 3 years documented experience 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.
- C. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying 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.
- D. Integrated Wiegand, Wireless, and IP-Enabled Access Control Products Supplier Qualifications: Integrated access control products and accessories are required to be supplied and installed through current members of the ASSA ABLOY "Authorized Channel Partner" (ACP) and "Certified Integrator" (CI) programs. Suppliers are to be factory trained, certified prior to project bid, and a direct purchaser of the specified product. Installers are to be factory trained,

certified prior to project bid, and are responsible for commissioning, servicing, and warranting the installed equipment specified for the project.

- E. 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
- F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- G. 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.
- H. 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
- I. 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.

- 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 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 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. Lifetime for mortise locks and latches.
 - 2. Five years for exit hardware.
 - 3. Ten years for electric latch retraction exit motors

- 4. Twenty-five years for manual surface door closer bodies.
- 5. Two years for electromechanical door hardware.
- 6. Lifetime for SN200 readers.

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.
- 1.9 OWNER STOCK See Attic Stock at the end of Hardware Schedule.

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:
- C. 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.
- 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 as specified in the Door Hardware Sets.
 - 1. Quantity: Provide the following hinge quantity, unless otherwise indicated:
 - 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 where indicated in the Hardware Sets or on Drawings:
 - a. Non-removable Pins: 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. Acceptable Manufacturers:
 - a. Hager Companies (HA).
 - b. McKinney Products (MK).
 - c. Stanley Hardware (ST).
- B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6060 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 cutouts.
 - 1. Acceptable Manufacturers:
 - a. McKinney Products (MK).
 - b. Pemko Manufacturing (PE).
 - c. Stanley Hardware (ST).

2.3 POWER TRANSFER DEVICES

- A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex[™] standardized plug connectors and 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. Acceptable Manufacturers:

- a. Pemko Manufacturing (PE) EL-CEPT Series.
- b. Securitron (SU) EL-CEPT Series.
- c. Stanley Hardware (ST) EPT-12C Series.
- 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 Products (MK) Electrical Connecting Kit: QC-R001.
 - b. McKinney Products (MK) Connector Hand Tool: QC-R003.

2.4 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.
 - 1. Manual flush bolts to be furnished with top rod of sufficient length to allow bolt location approximately six feet from the floor.
 - 2. Furnish dust proof strikes for bottom bolts.
 - 3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
 - 4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
 - 5. Acceptable Manufacturers:
 - a. Ives (IV).
 - b. Rockwood Manufacturing (RO).
 - c. Trimco (TC).
- B. Door Push Plates and Pulls: ANS/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. Acceptable Manufacturers:

- a. Ives (IV).
- b. Rockwood Manufacturing (RO).
- c. Trimco (TC).

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. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.
 - 1. Acceptable Manufacturers:
 - a. Stanley Best (BE).
 - b. Sargent Cylinder Housings
 - c. No Substitution.
- C. Cylinders: Original manufacturer cylinders complying with the following:
 - 1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
 - 2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
 - 3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
 - 4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
 - 5. Keyway: Match Facility Standard.
- D. Keying System: Each type of lock and cylinders to be factory keyed.
 - 1. Conduct specified "Keying Conference" to define and document keying system instructions and requirements.
 - 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
 - 3. Existing System: Key locks to Owner's existing system.
- E. Key Quantity: Provide the following minimum number of keys:
 - 1. Change Keys per Cylinder: Two (2)
 - 2. Twenty construction cores
 - 3. 50 Key Blanks Best "A" Keyway
 - 4. Temporary (green) core keys: 1 key per lockset
- F. Construction Keying: Provide temporary keyed construction cores. Green Best Cores No Substitution. All Best temporary cores to be returned to the district at the end of the project.
- G. Key Registration List (Bitting List):

- 1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
- 2. Provide transcript list in writing or electronic file as directed by the Owner.
- H. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project. Provide a new cabinet to all new construction projects. Use Lund 1205-B as a basis of design.
 - 1. Acceptable Manufacturers:
 - a. Lund Equipment (LU).
 - b. MMF Industries (MM).
 - c. Telkee (TK).

2.6 MECHANICAL LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.
 - 1. Acceptable Manufacturers
 - a. Sargent Manufacturing (SA) 8200 Series No substitutions
 - b. Sargent Manufacturing (SA) 10X Series No substitutions
 - 1) Use at student restrooms or as directed by Cy Fair ISD

2.7 AUXILIARY LOCKS

- A. Tubular Deadlocks: Deadlocks to be products of the same source manufacturer and keyway as other specified locksets.
 - 1. Acceptable Manufacturers:
 - a. Marks (MX) 130 Series.
 - b. Sargent Manufacturing (SA) 480 Series.

2.8 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. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
- B. Standards: Comply with the following:
 - 1. Strikes for Mortise Locks and Latches: BHMA A156.13.
 - 2. Strikes for Auxiliary Deadlocks: BHMA A156.5.
 - 3. Dustproof Strikes: BHMA A156.16.

2.9 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. 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.
 - 6. Rail Sizing: Provide exit device rails factory sized for proper door width application.
 - 7. Through Bolt Installation: For exit devices and trim as indicated (TB) in Door Hardware Sets.
 - 8. Provide Less Dogging (LD) at all exit devices.
 - 9. Add 31- Prefix to all exit devices being provided at two inch aluminum doors.

- 10. No self-tapping screws allowed.
- B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 certified 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. Acceptable Manufacturers:
 - a. Sargent Manufacturing (SA) 80 Series.
 - b. No Substitution.
- C. 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. Acceptable Manufacturers:
 - a. Stanley Precision (PR) 822 Series.
 - b. No Substitution.

2.10 INTEGRATED WIEGAND OUTPUT ACCESS CONTROL EXIT DEVICES

- A. Wiegand Output Integrated Card Reader Exit Hardware: Wiegand output ANSI 156.3 Grade 1 rim, mortise, and vertical rod exit device hardware with integrated proximity card reader, latchbolt and touchbar monitoring, and request-to-exit signaling, in one complete unit. Hard wired, solenoid driven locking/unlocking control of the lever handle exit trim with 3/4" throw latch bolt. U.L listed and labeled for either panic or "fire exit hardware" for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override.
 - 1. Open architecture, hard wired platform supports centralized control of locking units with new or existing Wiegand compatible access control systems. Inside push bar (request-to-exit) signaling and door position (open/closed status) monitoring (via separately connected DPS).
 - 2. Reader supports either HID 125 kHz proximity (up to 39 bits, including Corporate 1000) or 13.56 MHz (2K-32K) iClass® credentials.
 - 3. 12VDC external power supply required for reader, with optional 24VDC operation available with iClass® reader (125 kHz reader is always 12VDC). 24VDC required for solenoid operated exit trim (12VDC if applicable). Fail safe or fail secure options.
 - 4. Installation requires only one cable run from the exit hardware to the access control panel without requirements for additional proprietary lock panel interface boards or modules.
 - 5. Acceptable Manufacturers:
 - a. Sargent Manufacturing (SA) SN 56-SN20080 Series Exits. x SPAR04867

- b. Sargent Manufacturing (SA) SN SN2008200 Series Locks.
- c. No Substitution.

2.11 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 including installation and adjusting information on inside of cover.
 - 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 in a test witnessed and verified by UL.
 - 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 physically handicapped, 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, and through-bolt and security type fasteners as required for proper installation.
 - 8. Through Bolt Installation: All door closers are to be installed with (TB) through bolting as indicated in Door Hardware Sets.
 - 9. No self-tapping screws allowed.
- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 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. Acceptable Manufacturers:
 - a. Sargent Manufacturing (SA) TB 351 Series.

2.12 SURFACE MOUNTED CLOSER HOLDERS

- A. Electromagnetic Door Holders: Certified ANSI A156.15 electromagnetic door holder/releases with a minimum 20 to 40 pounds holding power and single coil construction able to accommodate.12VDC, 24VAC, 24VDC and 120VAC. Coils to be independently wound, employing an integral fuse and armatures to include a positive release button.
 - 1. Acceptable Manufacturers:
 - a. LCN Door Closers (LC) SEM7800 Series.
 - b. Rixson (RF) 980/990 Series.
 - c. Sargent Manufacturing (SA) 1560 Series.

2.13 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. 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.
 - 4. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
 - 5. Acceptable Manufacturers:
 - a. Ives (IV).
 - b. Rockwood Manufacturing (RO).
 - c. Trimco (TC).

2.14 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. Acceptable Manufacturers:
 - a. Ives (IV).
 - b. Rockwood Manufacturing (RO).
 - c. Trimco (TC).
- C. Overhead Door Stops and Holders: ANSI/BHMA A156.6, Grade 1 certified 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. Acceptable Manufacturers:
 - a. Do not use overhead stops/holders

2.15 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 UBC 7-2, Fire Tests of Door Assemblies.
- D. No Replaceable Seal Strips allowed: Provide only those units where they can be screw applied..
- E. Acceptable Manufacturers:
 - 1. National Guard Products (NG).
 - 2. Pemko Manufacturing (PE).
 - 3. Reese Enterprises, Inc. (RE).

2.16 ELECTRONIC ACCESSORIES

- A. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.
 - 1. Acceptable Manufacturers:
 - a. Provided by Security
- B. Switching Power Supplies: Provide UL listed or recognized filtered and regulated power supplies. Provide single, dual, or multi-voltage units as shown in the hardware sets. Units must be expandable up to eight Class 2 power limited outputs. Units must include the capability to incorporate a battery backup option with integral battery charging capability in addition to operating the DC load in event of line voltage failure. Provide the least number of units, at the appropriate amperage level, sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.
 - 1. Acceptable Manufacturers:
 - a. Provided by Security

2.17 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.

2.18 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. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
 - 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. Integrated Wiegand access control products are required to be installed through current members of the ASSA ABLOY "Certified Integrator" (CI) 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.
- G. No self-tapping screws allowed.

3.4 FIELD QUALITY CONTROL

A. Field Inspection: Supplier will perform a final inspection of installed door hardware and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating and adjusted.

3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
- B. Final Adjustment: Installer shall return and make final adjustment of all hardware once all air conditioning test and balance is complete. Final adjustment shall be made while air conditioner system is operating. Coordinate with General Contractor and Owner.

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

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.

- A. Manufacturer's Abbreviations:
 - MK McKinney
 OT OTHER
 PE Pemko
 RO Rockwood
 PR Precision
 MX Marks
 SA Sargent
 AD Adams Rite
 BE Best Access Systems
 HS HES
 SU Securitron
 KD Keedex
 LO Locinox

**At existing doors / frames, all conditions must be field verified prior to order. <u>At aluminum frames, gasket is by frame manufacturer.</u> **Confirm EPT v/s door loop at all access control locations. **Confirm all fire ratings and provide compliant hardware.

Hardware Sets based on plans dated 08/09/2024 12/11/2024 – Revisions per 75% Owner's meeting 2/12/2025 – Revisions per 95% Owner's meeting

SMITH MIDDLE SCHOOL HARDWARE SETS

Set: 1.0

Doors: C100A-2 Description: 2N Station - 8510 LT LD

1	Rim Exit SPAR NC-E11	LD 19 TB 43 8510 EO	US32D	SA
1	Balance of hardware	Existing to remain		OT
1	2N Station	2N		OT

<u>Set: 2.0</u>

Doors: B111-3 Description: 2N Station - 8804 LD - Sweep

1	Rim Exit SPAR NC-E11	LD 19 TB 43 70 8804 Less Pull	US32D	SA
1	Gasketing	2891APK (head & jambs)		PE
1	Sweep	345ANB x Dr. Width		PE
1	All hardware	Existing to remain		OT
1	2N Station	2N		OT

Notes: Gasketing by door manufacturer at aluminum doors. Existing electric strike to remain.

Set: 2.1

Doors: B108-4 Description: 8804 LD - Sweep

1	Rim Exit SPAR NC-E11	LD 19 TB 43 70 8804 Less Pull	US32D	SA
1	Gasketing	2891APK (head & jambs)		PE
1	Sweep	345ANB x Dr. Width		PE
1	All hardware	Existing to remain		OT

Notes: Gasketing by door manufacturer at aluminum doors. Existing electric strike to remain.

Set: 3.0

Doors: A004-6 Description: Reader to remain

1	Reader	Existing to remain	26D	SA
1	Balance of hardware	Existing to remain		OT

Notes: Gasketing by the door manufacturer at aluminum doors.

Set: 3.1

Doors: E100G-1, E100H-1 Description: Add 8510 LD

1	Rim Exit SPAR NC-E11	LD 19 TB 43 8510 EO	US32D	SA
1	Balance of hardware	Existing to remain		OT

Set: 3.2

Doors: C100A-1 Description: Add 8504 / 8510 LD

1	Rim Exit SPAR NC-E11	LD 19 TB 43 8510 EO	US32D	SA
1	Rim Exit SPAR04867/NC-E11	LD 19 TB 43 70 8504 Less Pull	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Balance of hardware	Existing to remain		OT

<u>Set: 4.0</u>

Doors: B113-1 Description: Add Reader - Gasket - Threshold

1	Gasketing	2891APK (head & jambs)		PE
1	Threshold	2005AT MSES25SS X Opening Wid	th	PE
1	Reader	Existing to remain	26D	SA
1	Balance of hardware	Existing to remain		OT

<u>Set: 5.0</u>

Doors: B107H-2, D106-2 Description: Add SN200 Exit, Loop, Sweep, Gasket, Threshold

Rim Exit x SPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8804	US32D	SA
Interchangeable Core	I/CK-7	626	BE
Const. Core	7190224	Green	BE
Gasketing	2891APK (head & jambs)		PE
Sweep	345ANB x Dr. Width		PE
Threshold	2005AT MSES25SS X Opening Widt	h	PE
ElectroLynx Harness	QC-C1500P		MK
ElectroLynx Harness	QC-C***P (length as req'd)		MK
Door Loop	DL-2		AK
Door Position Switch	By Security.		OT
Power Supply	Provided by security		SU
Balance of hardware	Existing to remain		OT
	Rim Exit x SPAR04867/NC-E11 Interchangeable Core Const. Core Gasketing Sweep Threshold ElectroLynx Harness ElectroLynx Harness Door Loop Door Position Switch Power Supply Balance of hardware	Rim Exit x SPAR04867/NC-E1119 LD TB 43 70 56-SN200-8804Interchangeable CoreI/CK-7Const. Core7190224Gasketing2891APK (head & jambs)Sweep345ANB x Dr. WidthThreshold2005AT MSES25SS X Opening WidtElectroLynx HarnessQC-C1500PElectroLynx HarnessQC-C***P (length as req'd)Door LoopDL-2Door Position SwitchBy Security.Power SupplyProvided by securityBalance of hardwareExisting to remain	Rim Exit x SPAR04867/NC-E1119 LD TB 43 70 56-SN200-8804US32DInterchangeable CoreI/CK-7626Const. Core7190224GreenGasketing2891APK (head & jambs)5000000000000000000000000000000000000

<u>Set: 6.0</u>

Doors: A109-1, B104-1, B104-2, B110-1, B111-1, D100A-1, D100B-1, D100C-1, D100D-1, D103-2, D104-2, E117-1, E118-1, E129-1, E130-1, E155-1, E156-1, E251-1, E252-1

Description: Add Exit Device-8816- HO Closers

1	Rim Exit Sec CR x SPAR#NC-E11	19 LD TB 43 49 70 8816 ETL	US32D	SA
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 PSH	EN	SA
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Notes: Provide hold open closers at classrooms unless fire rated. No hold open on rated doors.

Set: 6.1

Doors: D100L-1, D100L-2, D100L-3, D103-1, D104-1 Description: Add Exit Device-8804- HO Closers

Rim Exit SPAR NC-E11	LD 19 TB 43 70 8804 ETL	US32D	SA
Interchangeable Core	I/CK-7	626	BE
Const. Core	7190224	Green	BE
Surface Closer	TB 351 PSH	EN	SA
Door Stop	481H	US26D	RO
Balance of hardware	Existing to remain		OT
	Rim Exit SPAR NC-E11 Interchangeable Core Const. Core Surface Closer Door Stop Balance of hardware	Rim Exit SPAR NC-E11LD 19 TB 43 70 8804 ETLInterchangeable CoreI/CK-7Const. Core7190224Surface CloserTB 351 PSHDoor Stop481HBalance of hardwareExisting to remain	Rim Exit SPAR NC-E11LD 19 TB 43 70 8804 ETLUS32DInterchangeable CoreI/CK-7626Const. Core7190224GreenSurface CloserTB 351 PSHENDoor Stop481HUS26DBalance of hardwareExisting to remain

Notes: Provide hold open closers at classrooms unless fire rated. No hold open on rated doors.

Set: 7.0

Doors: D106-1 Description: Add Exit Device-8816- ADB

1	Rim Exit Sec CR x SPAR#NC-E11	19 LD TB 43 49 70 8816 ETL	US32D	SA
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Door Bottom	411APKL		PE
1	Balance of hardware	Existing to remain		OT

<u>Set: 8.0</u>

Doors: B100-1, B108-1 Description: Add Rated Exit Device-8816/8804- Closers - Thru bolts

1	Rim Exit Rated Sec CR x SPAR#NC	-E11	12 LD 19	TB 43 49 70
88	16 ETL	US32D	SA	
1	Rim Exit SPAR NC-E11	12 LD 19 TB 43 70 8804 ETL	US32D	SA
4	Interchangeable Core	I/CK-7	626	BE
4	Const. Core	7190224	Green	BE
2	Sex Nut & Bolt Kit	SNB134-38	689	NO
2	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Notes: Provide hold open closers at classrooms unless fire rated. No hold open on rated doors. ******TB Kit to be used to fill existing pull preps.

<u>Set: 9.0</u> Description: Not Used

1 Set

Not Used

OT

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times.

Set: 10.0

Doors: E100B-1

Description: Add Pr SN200 Narrow Exit x Less Trim x 8510 - Loop

1	Rim Exit SPAR NC-E11	LD 19 TB 43 8510 EO	US32D	SA
1	Rim Exit xSPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8504 Less	Trim	US32D
	SA			
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
2	Door Stop	462	US2C	RO
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Power Supply	Provided by security		SU
1	Balance of hardware	Existing to remain		OT

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times. Reuse existing trim.

Set: 11.0

Doors: E100B-2, E100G-2 Description: No Work

1 All hardware	Existing to remain	OT
<u>Set: 12.0</u>		
Doors: C101-2		

Doors: C101-2

Description: Add Pr SN200 Narrow Exit x Less Trim - Loop - Closers - Dog

1 1	Rim Exit SPAR NC-E11 Dog Rim Exit xSPAR04867/NC-E11	19 TB 43 8510 EO 19 LD TB 43 70 56-SN200-8504 Less	US32D Trim	SA US32D
	SA			
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
2	Surface Closer	TB 351 P10	EN	SA
2	Door Stop	462	US2C	RO
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK

1 Door Loop	DL-2	AK
1 Power Supply	Provided by security	SU
1 Balance of hardware	Existing to remain	OT

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times. Reuse existing trim.

Set: 12.1

Doors: D105A-2

Description: Add Pr SN200 Narrow Exit x Less Trim - Loop - Closers - LD

	Rim Exit SPAR NC-E11	LD 19 TB 43 8510 EO	US32D	SA
1	Rim Exit xSPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8504 Less	Trim	US32D
	SA			
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
2	Surface Closer	TB 351 P10	EN	SA
2	Door Stop	462	US2C	RO
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Power Supply	Provided by security		SU
1	Balance of hardware	Existing to remain		OT

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times. Reuse existing trim.

Set: 13.0

Doors: E100J-1 Description: Add Sgl SN200 Narrow Exit x Less Trim - Loop

Rim Exit xSPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8504 Less	s Trim	US32D
SA			
Interchangeable Core	I/CK-7	626	BE
Const. Core	7190224	Green	BE
Door Stop	462	US2C	RO
ElectroLynx Harness	QC-C1500P		MK
ElectroLynx Harness	QC-C***P (length as req'd)		MK
Door Loop	DL-2		AK
Power Supply	Provided by security		SU
Balance of hardware	Existing to remain		OT
	Rim Exit xSPAR04867/NC-E11 SA Interchangeable Core Const. Core Door Stop ElectroLynx Harness ElectroLynx Harness Door Loop Power Supply Balance of hardware	Rim Exit xSPAR04867/NC-E1119 LD TB 43 70 56-SN200-8504 LessSAInterchangeable CoreI/CK-7Const. Core7190224Door Stop462ElectroLynx HarnessQC-C1500PElectroLynx HarnessQC-C***P (length as req'd)Door LoopDL-2Power SupplyProvided by securityBalance of hardwareExisting to remain	Rim Exit xSPAR04867/NC-E1119 LD TB 43 70 56-SN200-8504 Less TrimSAInterchangeable CoreI/CK-7626Const. Core7190224GreenDoor Stop462US2CElectroLynx HarnessQC-C1500PUS2CElectroLynx HarnessQC-C***P (length as req'd)Door LoopDoor LoopDL-2Provided by securityEalance of hardwareBalance of hardwareExisting to remainImage: Constant of the security

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times. Reuse existing trim.

Set: 13.1

Doors: E100K-1 Description: Add Sgl 56-8504 Narrow Exit x Less Trim - EPT

	Electric Power Transfer	EL-CEPT	630	SU
	Rim Exit xSPAR04867/NC-E11	LD 19 TB 43 56 70 8504 Less Pull	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	462	US2C	RO
1	ElectroLynx Harness	QC-C1500P		MK
1	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Power Supply	Provided by security		SU
1	Balance of hardware	Existing to remain		OT

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times. Reuse existing trim.

<u>Set: 14.0</u> Doors: A101-1, E124A-1, E130A-1, E149A-1, E150A-1, E226A-1, E245A-1, E246A-1, E256-1, F101-1 Description: Existing - Add 8204

1 1 1 1	Storeroom/Closet Lock Interchangeable Core Const. Core Door Stop Balance of hardware	70 8204 LL I/CK-7 7190224 481H Existing to remain	US26D 626 Green US26D	SA BE BE RO OT	
<u>Se</u> De	<u>t: 15.0</u> escription: Not Used				
1	Set	Not Used		OT	
<u>Se</u> De	<u>t: 16.0</u> escription: Not Used				
1	Set	Not Used		OT	
<u>Se</u> Do Do	<u>t: 17.0</u> pors: E206-2 escription: Existing - Add 8204 - HO C	Closer - Classroom			
1 1 1 1 1	Storeroom/Closet Lock Interchangeable Core Const. Core Door Closer w/ HO Door Stop Balance of hardware	70 8204 LL I/CK-7 7190224 TB 351 H (inswing)/ PSH (outswing) 481H Existing to remain	US26D 626 Green As Req US26D	SA BE BE EN RO OT	SA

Set: 18.0

Doors: E112-1, E124-1, E140-1, E149-1, E150-1, E207-2, E226-2, E236-2, E245-2, E246-2 Description: Existing - Add 8204 - Rated Classroom

1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Set: 19.0

Doors: E112-2, E124-2, E140-2, E149-2, E150-2, E207-1, E226-1, E236-1, E245-1, E246-1 Description: Existing - Add 8238 - Rated Classroom

1	Classroom Security Intruder Lock	V01 EMB 70 8238 VN1L 90-3/8" Collar		US26D
	SA			
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Set: 20.0

Doors: A106-1, A107-1, B109-1, D101-1, D102-1, E101-1, E102-1, E105-1, E113-1, E115-1, E125-1, E127-1, E131-1, E133-1, E134-1, E136-1, E138-1, E139-1, E143-1, E145-1, E147-1, E148-1, E151-1, E153-1, E202-1, E203-1, E204-1, E205-1, E206-1, E208-1, E210-1, E212-1, E213-1, E220-1, E222-1, E224-2, E225-1, E227-1, E229-1, E230-1, E232-1, E234-1, E235-1, E239-1, E241-1, E243-1, E244-1, E247-1, E249-1

Description: Existing - Add 8238 - HO Closer

1	Classroom Security Intruder Lock	V01 EMB 70 8238 VN1L 90-3/8" Co	llar	US26	D
	SA				
2	Interchangeable Core	I/CK-7	626	BE	
2	Const. Core	7190224	Green	BE	
1	Door Closer w/ HO	TB 351 H (inswing)/ PSH (outswing)	As Req	EN	SA
1	Door Stop	481H	US26D	RO	
1	Balance of hardware	Existing to remain		OT	

Set: 20.1

Doors: A102-1, B103-1 Description: Existing - Add 8238

1	Classroom Security Intruder Lock	V01 EMB 70 8238 VN1L 90-3/8" Co	ollar	US26D
	SA			
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Set: 21.0

Doors: A100M-2, A102A-1 Description: Existing - Add 8237

1	Classroom Lock	70 8237 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Notes: Add 31- to lockset at doors over 1 3/4" thick.

Set: 22.0

Doors: A100A-1, A100B-1, A100C-1, A100C-2, A100E-1, A100G-1, A100H-1, A100H-2, A103-1, A104-1, A104A-1, A104B-1, A104C-1, A104D-1, A104E-1, A105-1, A105A-1, A105B-1, A105C-1, A105D-1, C105G-1, E106-1, E107-1, E108-1, E110-1, E111-1 Description: Existing - Add 8205

1 1 1 1	Office/Entry Lock Interchangeable Core Const. Core Door Stop Balance of hardware	70 8205 LL I/CK-7 7190224 481H Existing to remain	US26D 626 Green US26D	SA BE BE RO OT		
<u>Se</u> De De	e <mark>t: 23.0</mark> oors: A102B-1 escription: Existing - Add 8215					
1	Passage Latch	8215 LL	US26D	SA		
1	Door Stop Balance of hardware	481H Existing to remain	US26D	RO		
1	Balance of hardware			01		
<u>Se</u> De De	<u>Set: 24.0</u> Doors: E122-1, E123-1, E217-1, E219-1 Description: Existing - Add 8250 - HO Closer					
1	Hotel Guest Lock Lock	V20 LC 8250 VN1L	US26D	SA		
1	Interchangeable Core	I/CK-7	626	BE		
1	Const. Core	7190224	Green	BE		
1	Mortise Cylinder for Hotel Lock	1E-7G4 C208 RP3	626	BE		
1	Surface Closer	TB 351 H	EN	SA		
1	Door Stop	481H	US26D	RO		
I	Balance of hardware	Existing to remain		01		
<u>Se</u> De De	e <mark>t: 25.0</mark> oors: A100K-1, A102C-1, E131B-1 escription: Existing - Add 8265					
1	Privacy Lock	V20 8265 VN1L	US26D	SA		

1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Set: 26.0

Doors: A106-2, A107-2 Description: Existing Sgl Ext ASF- Add Closer - Stop

1	Surface Closer	TB 351 P10	EN	SA
1	Door Stop	462	US2C	RO
1	Balance of hardware	Existing to remain		OT

Set: 27.0

Doors: C101-3

Description: **Pr Ext - ASF - Exit Device- SN200/DT - Mullion - Closer w/Stop Arm -Access Control

1				DE	
1	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE	
1	Continuous Hinge	CFM SLF-HD1 PT x Dr. Ht.		PE	
1	Electric Power Transfer	EL-CEPT	630	SU	
1	Mullion	KR822 (FLK as req)	600	PR	
2	Stabilizer	ST989	Dull Blac	k	PR
1	Spacer	MCS822	689	PR	
1	Rim Exit xSPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8504 862	US32D	SA	
1	Rim Exit x SPAR#NC-E11	19 TB 43 8510 862	US32D	SA	
2	Interchangeable Core	I/CK-7	626	BE	
1	Rim Cylinder	70 34 X #90 - 1/2	US32D	SA	
2	Const. Core	7190224	Green	BE	
2	Kit	581-1/ 581-2 as required	EN	SA	
2	Surface Closer	TB 351 P10	EN	SA	
2	Door Stop	462	US2C	RO	
2	Sweep IDF/MDF/Alum	18061CNB x Dr. Width		PE	
1	Threshold	2005AT MSES25SS X Opening Width	1	PE	
1	Perimeter Seal	By door mfgr		OT	
1	ElectroLynx Harness	QC-C1500P		MK	
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK	
2	Door Position Switch	By Security.		OT	
1	Power Supply	Provided by security		SU	

Notes: Operation: Doors normally closed and locked. Valid card at the card reader retracts the latch on the active leaf for entry. Free egress at all times. Door status monitored. Confirm specified hardware is compatible with aluminum door manufacturer.

Set: 28.0

Doors: C105-1 Description: **Sgl - ExT -HM - EX FR Exit- 2N Lever- Closer /HO- Access Control - Viewer

1	Continuous Hinge	CFM HD1 x Dr. Ht.		PE
1	Rim Exit 2N SPAR04867/NC-E11	LD 19 TB 43 56 70 8804 ETL	US32D	SA
1	Vandal Resistant Trim	826	US32D	SA

Interchangeable Core	I/CK-7	626	BE
Const. Core	7190224	Green	BE
Surface Closer	TB 351 PSH	EN	SA
Gasketing	2891APK (head & jambs)		PE
Rain Guard	346C x Frame Width		PE
Sweep	345ANB x Dr. Width		PE
Sweep IDF/MDF/Alum	18061CNB x Dr. Width		PE
Threshold	2005AT MSES25SS X Opening Width	h	PE
ElectroLynx Harness	QC-C1500P		MK
ElectroLynx Harness	QC-C***P (length as req'd)		MK
Door Loop	DL-2		AK
Door Position Switch	By Security.		OT
Power Supply	Provided by security		SU
Viewer	622 x door thickness	DCRM	RO
Keedex Lock Protector	K12S - SGT		OT
	Interchangeable Core Const. Core Surface Closer Gasketing Rain Guard Sweep Sweep IDF/MDF/Alum Threshold ElectroLynx Harness ElectroLynx Harness Door Loop Door Position Switch Power Supply Viewer Keedex Lock Protector	Interchangeable CoreI/CK-7Const. Core7190224Surface CloserTB 351 PSHGasketing2891APK (head & jambs)Rain Guard346C x Frame WidthSweep345ANB x Dr. WidthSweep IDF/MDF/Alum18061CNB x Dr. WidthThreshold2005AT MSES25SS X Opening WidthElectroLynx HarnessQC-C1500PElectroLynx HarnessQC-C***P (length as req'd)Door LoopDL-2Door Position SwitchBy Security.Power SupplyProvided by securityViewer622 x door thicknessKeedex Lock ProtectorK12S - SGT	Interchangeable CoreI/CK-7626Const. Core7190224GreenSurface CloserTB 351 PSHENGasketing2891APK (head & jambs)Rain Guard346C x Frame WidthSweep345ANB x Dr. WidthSweep IDF/MDF/Alum18061CNB x Dr. WidthThreshold2005AT MSES25SS X Opening WidthElectroLynx HarnessQC-C1500PElectroLynx HarnessQC-C***P (length as req'd)Door LoopDL-2Door Position SwitchBy Security.Power SupplyProvided by securityDCRMKeedex Lock ProtectorK12S - SGT

Notes: Operation: Doors normally closed and locked. Valid card at the card reader retracts the latch on the active leaf for entry. Free egress at all times. Door status monitored. Confirm specified hardware is compatible with door manufacturer.

Set: 29.0

Doors: C109-2

Description: **Sgl - ExT -HM - Exit- SN200 FSW - Closer /Stop- Access Control

1	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE
1	Rim Exit x SPAR04867/NC-E11	LD 19 TB 43 70 56-SN200-8804 FSW	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 PS	EN	SA
1	Door Stop	462	US2C	RO
1	Gasketing	2891APK (head & jambs)		PE
1	Rain Guard	346C x Frame Width		PE
1	Sweep	345ANB x Dr. Width		PE
1	Sweep IDF/MDF/Alum	18061CNB x Dr. Width		PE
1	Threshold	2005AT MSES25SS X Opening Widt	h	PE
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Door Position Switch	By Security.		OT
1	Power Supply	Provided by security		SU

Notes: Operation: Doors normally closed and locked. Valid card at the card reader retracts the latch on the active leaf for entry. Free egress at all times. Door status monitored. Confirm specified hardware is compatible with door manufacturer.

<u>Set: 30.0</u> Doors: B100-4, B101H-2

Description: **Sgl - ExT -HM - Exit- SN200 - Closer /Stop- Access Control - Peep

1	Continuous Hinge	CFM HD1 PT x Dr. Ht.		PE
1	Electric Power Transfer	EL-CEPT	630	SU
1	Rim Exit x SPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8804	US32D	SA
1	Vandal Resistant Trim	826	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 PS	EN	SA
1	Gasketing	2891APK (head & jambs)		PE
1	Rain Guard	346C x Frame Width		PE
1	Sweep	345ANB x Dr. Width		PE
1	Threshold	2005AT MSES25SS X Opening Widt	h	PE
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Position Switch	By Security.		OT
1	Power Supply	Provided by security		SU
2	Viewer	622 x door thickness	DCRM	RO

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times.

<u>Set: 31.0</u> Doors: B101B-2, C106-2 Description: **Pr Ext - Storeroom/Mechanical - Closer/Stop

2	Continuous Hinge	CFM HD1 x Dr. Ht.		PE
1	Surface Bolt	580-12 @ top only	US26D	RO
1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 PS	EN	SA
1	Astragal Set (2)	18061CNB x Dr. Ht		PE
1	Gasketing	2891APK (head & jambs)		PE
1	Rain Guard	346C x Frame Width		PE
2	Sweep	345ANB x Dr. Width		PE
1	Threshold	2005AT MSES25SS X Opening Width	h	PE
2	Door Position Switch	By Security.		OT

Notes: Closer on active leaf.

Set: 32.0

Doors: D100L-5 Description: **Sgl - Ext- Mech/Storage/Fire Riser - Closer w/Stop Arm

1	Continuous Hinge	CFM HD1 x Dr. Ht.		PE
1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE

1	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 PS	EN	SA
1	Gasketing	2891APK (head & jambs)		PE
1	Rain Guard	346C x Frame Width		PE
1	Sweep	345ANB x Dr. Width		PE
1	Threshold	2005AT MSES25SS X Opening Width	ı	PE
1	Door Position Switch	By Security.		OT

Set: 33.0

Doors: A002-1

Description: **Pr Int- ASF - Vest SN200 Exit Device- NL/DT - Mullion - Closer /Stop - Access Control

1	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE	
1	Continuous Hinge	CFM SLF-HD1 PT x Dr. Ht.		PE	
1	Mullion	KR822 (FLK as req)	600	PR	
2	Stabilizer	ST989	Dull Blac	k	PR
1	Spacer	MCS822	689	PR	
1	Rim Exit x SPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8804 ETL	US32D	SA	
1	Rim Exit - DT x SPAR#NC-E11	19 LD TB 43 8810 ETL	US32D	SA	
2	Interchangeable Core	I/CK-7	626	BE	
1	Rim Cylinder	70 34 X #90 - 1/2	US32D	SA	
2	Const. Core	7190224	Green	BE	
2	Kit	581-1/ 581-2 as required	EN	SA	
2	Surface Closer	TB 351 P10	EN	SA	
2	Door Stop	481H	US26D	RO	
1	Perimeter Seal	By door mfgr		OT	
1	ElectroLynx Harness	QC-C1500P		MK	
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK	
2	Door Position Switch	By Security.		OT	
1	Power Supply	Provided by security		SU	

Notes: Operation: Doors normally closed and locked. Valid card at the card reader retracts the latch on the active leaf for entry. Free egress at all times. Door status monitored. Confirm specified hardware is compatible with aluminum door manufacturer.

Set: 34.0

Doors: A002-2

Description: **Pr Int- ASF - Vest Exit Device- NL/DT - Mullion - Closer /Stop

2	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE	
1	Mullion	KR822 (FLK as req)	600	PR	
2	Stabilizer	ST989	Dull Blac	ck	PR
1	Spacer	MCS822	689	PR	
1	Rim Exit 2N SPAR04867/NC-E11	LD 19 TB 43 56 70 8804 ETL	US32D	SA	
1	Rim Exit - DT x SPAR#NC-E11	19 LD TB 43 8810 ETL	US32D	SA	
2	Interchangeable Core	I/CK-7	626	BE	
1	Rim Cylinder	70 34 X #90 - 1/2	US32D	SA	
2	Const. Core	7190224	Green	BE	

2	Kit	581-1/ 581-2 as required	EN	SA
2	Surface Closer	TB 351 P10	EN	SA
2	Door Stop	481H	US26D	RO
1	Perimeter Seal	By door mfgr		OT

Set: 35.0

Doors: C109E-1

Description: **Sgl - Exit Device-Security CL - Closer - STC

3	Hinges	By the STC door manufacturer		OT
1	Rim Exit Sec CR x SPAR#NC-E11	19 LD TB 43 49 70 8816 ETL	US32D	SA
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	481H	US26D	RO
1	Gasket, threshold, door bottom	By the STC door manufacturer		OT

Notes: Door hardware is specified for design intent. Confirm hardware compatibility and design meets the door manufacturer's approved assembly testing for the STC level indicated. Add 31- to panic if door is over 1 3/4" thick.

Set: 35.1

Doors: C109-1 Description: **Sgl - Push/Pull - Closer - STC

3	Hinges	By the STC door manufacturer		OT
1	Push Plate	70E	US32D	RO
1	Pull Plate	111x70C	US32D	RO
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	462	US2C	RO
1	Gasket, threshold, door bottom	By the STC door manufacturer		OT

Notes: Door hardware is specified for design intent. Confirm hardware compatibility and design meets the door manufacturer's approved assembly testing for the STC level indicated.

<u>Set: 36.0</u>

Doors: B101G-1, B107G-1 Description: Sgl - Exit Device-Security CL - Closer / HO

3	Hinge (heavy weight)	T4A3786	US26D	MK
1	Rim Exit Sec CR x SPAR#NC-E11	19 LD TB 43 49 70 8816 ETL	US32D	SA
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 PSH	EN	SA
1	Door Stop	481H	US26D	RO
1	Gasketing	2891APK (head & jambs)		PE
Set: 37.0

Doors: F100-1 Description: Sgl - ASF Exit Device-Security CL - Closer / HO

1	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE
1	Rim Exit Sec CR x SPAR#NC-E11	19 LD TB 43 49 70 8816 ETL	US32D	SA
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Kit	581-1/ 581-2 as required	EN	SA
1	Surface Closer	TB 351 PSH	EN	SA
1	Door Stop	481H	US26D	RO
1	Perimeter Seal	By door mfgr		OT

Set: 38.0

Doors: A100-1, A100-2, A100M-1 Description: **Sgl- Int ASF- SN200 Lock- Closer - Access Control

1	Continuous Hinge	CFM SLF-HD1 PT x Dr. Ht.		PE
1	Electric Power Transfer	EL-CEPT	630	SU
1	SN200 Mort Lock	70 SN200-82271 OL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	481H	US26D	RO
1	ElectroLynx Harness	QC-C1500P		MK
1	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Position Switch	By Security.		OT
1	Power Supply	Provided by security		SU
1	Gasketing	By the frame manufacturer		OT

Notes: Operation: Door normally closed and secure. Valid card at the card reader will allow entry by trim. Free egress at all times. Door status is monitored. Install reader and cylinder on reception side.

<u>Set: 39.0</u> Doors: C109B-1 Description: **Sgl - Storeroom - Wide

3	Hinge (heavy weight)	T4A3786	US26D	MK
1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	481H	US26D	RO
3	Silencer	608		RO

Set: 40.0

Doors: B101A-3, B107A-3, C109D-1 Description: **Sgl - Classroom

3	Hinge, Full Mortise	TA2714	US26D	MK
1	Classroom Lock	70 8237 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	481H	US26D	RO
1	Silencer	608		RO

Set: 41.0

Doors: A106C-1

Description: **Sgl - Storeroom - closer/stop - Wide

3	Hinge (heavy weight)	T4A3786	US26D	MK
1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 PS	EN	SA
3	Silencer	608		RO

Set: 42.0

Doors: C109A-1, D104C-1 Description: **Sgl - 8204 - Practice STC

3	Hinges	By the STC door manufacturer		OT
1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	462	US2C	RO
1	Gasket, threshold, door bottom	By the STC door manufacturer		OT

Notes: Door hardware is specified for design intent. Confirm hardware compatibility and design meets the door manufacturer's approved assembly testing for the STC level indicated. Add 31- to lockset if door is over 1 3/4" thick.

Set: 42.1

Doors: C109C-1 Description: **Sgl - 8237 - Practice STC

3	Hinges	By the STC door manufacturer		OT
1	Classroom Lock	70 8237 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	462	US2C	RO
1	Gasket, threshold, door bottom	By the STC door manufacturer		OT

Notes: Door hardware is specified for design intent. Confirm hardware compatibility and design meets the door manufacturer's approved assembly testing for the STC level indicated.

Add 31- to lockset if door is over 1 3/4" thick.

Set: 43.0

Doors: B101G-2, B107G-2

Description: Sgl - Push Pull - Closer - HO

3	Hinge (heavy weight)	T4A3786	US26D	MK	
1	Push Plate	70E	US32D	RO	
1	Pull Plate	111x70C	US32D	RO	
1	Door Closer w/ HO	TB 351 H (inswing)/ PSH (outswing)	As Req	EN	SA
1	Door Stop	481H	US26D	RO	
3	Silencer	608		RO	

Set: 43.1

Doors: B100B-1, B100B-2, B100C-1, B100C-2 Description: **Sgl - Multi Occ RR - Classroom Cyl - Closer

3	Hinge, Full Mortise	TA2714	US26D	MK	
1	Classroom Lock	70 10XG37 LL	US26D	SA	
1	Interchangeable Core	I/CK-7	626	BE	
1	Const. Core	7190224	Green	BE	
1	Door Closer w/ HO	TB 351 H (inswing)/ PSH (outswing)	As Req	EN	SA
1	Door Stop	481H	US26D	RO	
3	Silencer	608		RO	

Notes: Confirm door height / hinge quantity required at G1001-1, G1001-2

Set: 44.0

Doors: A1003-1, B100-2, B100A-2, B100A-3, B111-2, C104-2, C104-3, C104A-1, C104A-2, C104A-3, D204-1, E100G-3, E161-2, S103-2, S103-3 Description: **OH Coiling Doors - No Work

1	All hardware	Existing to remain		OT			
<u>Set: 45.0</u> Doors: D100L-6 Description: **OH Coiling Doors - Motorized							
2	Mortise Cylinder	70 42	US32D	SA			
2	Interchangeable Core	I/CK-7	626	BE			
2	Const. Core	7190224	Green	BE			
2	Keyswitch	MK x MKS		SU			
1	Balance hardware	by the door manufacturer		OT			

Notes: Provide keyswitch on both sides of door.

Set: 46.0

Doors: A004-3, A004-4, A004-7, A100D-1, A100F-1, A100J-1, A100L-1, A105E-1, A106A-1, A106A-2, A106B-1, A106B-2, A108-1, A109-2, A109A-1, A109B-1, A109C-1, A110-1, A112-1, B100-3, B100A-1, B101A-1, B101A-2, B101AA-1, B101AB-1, B101B-1, B101C-1, B101H-1, B102-1, B102-2, B104A-1, B105-1, B105-2, B106-1, B107A-1, B107A-2, B107AB-1, B107B-1, B107B-2, B107C-1, B107H-1, B109A-1, B109B-1, B110-2, B110-3, B110A-1, B110A-2, B110B-1, B110C-1, B110D-1, B111-4, B113-2, B114-1, B114-2, B115-1, B117-1, B118-1, B118-A, C100-1, C102-1, C103-1, C104-1, C105A-1, C105B-1, C105C-1, C105D-1, C105E-1, C105F-1, C106-1, C107-1, C107-2, C112-1, C112A-1, C112B-1, C113-1, D100E-1, D101A-1, D101A-2, D101B-1, D102A-1, D103B-1, D103C-1, D104A-1, D104B-1, D105-1, D105A-1, D106A-1, D106B-1, D106C-1, D106D-1, D106E-1, D106F-1, D106G-1, E100-1, E101A-1, E109-1, E111A-1, E111B-1, E111C-1, E112-3, E114-1, E114-2, E114A-1, E116-1, E120-1, E124-3, E126-1, E126-2, E128-1, E128A-1, E131A-1, E131A-2, E131B-2, E132-1, E133A-1, E135-1, E135-2, E135A-1, E137-1, E140-3, E141-1, E142-1, E144-1, E144-2, E144A-1, E146-1, E149-3, E150-3, E152-1, E152-2, E152A-1, E154-1, E158-1, E160-1, E161-1, E200-1, E200A-1, E200B-1, E207-3, E209-1, E209-2, E209A-1, E211-1, E215-1, E221-1, E221-2, E221A-1, E223-1, E225A-1, E226-3, E228-1, E229-2, E229A-1, E231-1, E231-2, E231A-1, E233-1, E236-3, E237-1, E238-1, E240-1, E240-2, E240A-1, E242-1, E245-3, E246A-2, E248-1, E248-2, E248A-1, E250-1, E254-1, F100-3, F100A-1, F100A-2, F100A-3, F100B-1, F101A-1, F102-1, F102A-1, S101-1, S102-1, S102-2, S103-1, S201-1 **Description:** No Work

1	All hardware	Existing to remain		OT
Set	t: 47.0			
Do	ors: Attic			
De	scription: **Attic Stock - EVERY CA	AMPUS		
5	Classroom Security Intruder Lock Bo	ody	8238	US26D
	SA			
10	130KB	Thumbturn Kit	26D	SA
50	Interchangeable Core	I/CK-7	626	BE
50	Key Blanks	Best "A" Keyway		BE
12	Regular Hold Open Arm	25-Н	EN	SA
12	Parallel Hold Open Arm	25-PSH	EN	SA
4	Electromagnetic Holder	994M 24VAC	689	RF
5	994M Magnetic Parts	Door Armature 994510M	689	RF
5	994M Magnetic Parts	Screw & Backplate 998300	689	RF
5	994M Magnetic Parts	Swivel Armature 900-3	689	RF
5	994M Magnetic Parts	Magnet Assembly 998369-3V	689	RF
5	994M Magnetic Parts	Wall Cover 998315M	689	RF
5	SN200 Reader	52 6027 (Exit/Lock)	26D	SA

Notes: All attic stock ships direct to Director of Technical Services Cy Fair ISD Lockshop 11430 Perry Road Houston, Texas 77064 All attic stock to ship directly to Cy Fair from the distributor. DO NOT ship to jobsite.

SPILLANE MIDDLE SCHOOL HARDWARE SETS

Set: 1.0 Doors: C101-2 Description: Add 56-8804 Loop

1	Rim Exit SPAR04867/NC-E11	LD 19 TB 43 56 8804 Less Pull	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	ElectroLynx Harness	QC-C1500P		MK
1	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Door Position Switch	By Security.		OT
1	Power Supply	Provided by security		SU
1	Balance of hardware	Existing to remain		OT

Notes: Gasketing by the door manufacturer at aluminum doors. Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times.

Set: 1.1

Doors: B100-2, B108-2 Description: Add 8804 Less Trim

1	Rim Exit SPAR NC-E11	LD 19 TB 43 8804 Less Pull	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Power Supply	Provided by security		SU
1	Balance of hardware	Existing to remain		OT

Notes: Gasketing by the door manufacturer at aluminum doors. Existing electric strike / reader to remain.

Set: 1.2

Doors: E100B-1 Description: Add 56-8504 Loop

1	Rim Exit xSPAR04867/NC-E11	LD 19 TB 43 56 8504 Less Pull	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	ElectroLynx Harness	QC-C1500P		MK
1	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Door Position Switch	By Security.		OT
1	Power Supply	Provided by security		SU
1	Balance of hardware	Existing to remain		OT

Notes: Gasketing by the door manufacturer at aluminum doors. Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain

secure. Free egress at all times.

Set: 1.3

Doors: E100G-1 Description: Add 56-8504 Loop x 8510

US32D	SA
US32D	SA
626	BE
Green	BE
	MK
	MK
	AK
	OT
	SU
	OT
	Green

Notes: Gasketing by the door manufacturer at aluminum doors. Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times.

<u>Set: 2.0</u>

Doors: E100H-1 Description: Add 8510 LD

1	Rim Exit SPAR NC-E11	LD 19 TB 43 8510 EO	US32D	SA
1	Balance of hardware	Existing to remain		OT

Set: 3.0

Doors: B107H-1

Description: Add SN200 8804 LT x Loop Threshold

Rim Exit x SPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8804	US32D	SA
Interchangeable Core	I/CK-7	626	BE
Const. Core	7190224	Green	BE
Threshold	2005AT MSES25SS X Opening Width		PE
ElectroLynx Harness	QC-C1500P		MK
ElectroLynx Harness	QC-C***P (length as req'd)		MK
Door Loop	DL-2		AK
Door Position Switch	By Security.		OT
Power Supply	Provided by security		SU
Balance of hardware	Existing to remain		OT
	Rim Exit x SPAR04867/NC-E11 Interchangeable Core Const. Core Threshold ElectroLynx Harness ElectroLynx Harness Door Loop Door Position Switch Power Supply Balance of hardware	Rim Exit x SPAR04867/NC-E1119 LD TB 43 70 56-SN200-8804Interchangeable CoreI/CK-7Const. Core7190224Threshold2005AT MSES25SS X Opening WidtElectroLynx HarnessQC-C1500PElectroLynx HarnessQC-C***P (length as req'd)Door LoopDL-2Door Position SwitchBy Security.Power SupplyProvided by securityBalance of hardwareExisting to remain	Rim Exit x SPAR04867/NC-E1119 LD TB 43 70 56-SN200-8804US32DInterchangeable CoreI/CK-7626Const. Core7190224GreenThreshold2005AT MSES25SS X Opening WidthElectroLynx HarnessQC-C1500PElectroLynx HarnessQC-C***P (length as req'd)Door LoopDL-2Door Position SwitchBy Security.Power SupplyProvided by securityBalance of hardwareExisting to remain

Set: 4.0

Doors: B101G-1, B104-1, B104-2, B107G-1, B110-1, B111-1, D100A-1, D100B-1, D100C-1, D100D-1, D106-1, E117-1, E118-1, E129-1, E130-1, E155-1, E156-1, E234-1, E235-1, E251-1, E252-1 Description: Add Exit Device-8816- HO Closers

1	Rim Exit Sec CR x SPAR#NC-E11	19 LD 43 49 70 8816 ETL	US32D	SA
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 PSH	EN	SA
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Notes: Provide hold open closers at classrooms unless fire rated. No hold open on rated doors.

Set: 4.1

Doors: D100L-1, D100L-2 Description: Add Exit Device-8804- HO Closers

1	Rim Exit NL SPAR#NC-E11	LD 19 TB 43 70 8804 ETL	US32D	SA
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 PSH	EN	SA
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Notes: Provide hold open closers at classrooms unless fire rated. No hold open on rated doors.

<u>Set: 5.0</u>

Doors: A004-1, A004-2 Description: Add Exit Device-8816/8804

Rim Exit Sec CR x SPAR#NC-E11	LD 19 LD 43 49 70 8816 ETL	US32D	SA
Rim Exit NL SPAR#NC-E11	LD 19 43 70 8804 ETL	US32D	SA
Interchangeable Core	I/CK-7	626	BE
Const. Core	7190224	Green	BE
Door Stop	481H	US26D	RO
Balance of hardware	Existing to remain		OT
	Rim Exit Sec CR x SPAR#NC-E11 Rim Exit NL SPAR#NC-E11 Interchangeable Core Const. Core Door Stop Balance of hardware	Rim Exit Sec CR x SPAR#NC-E11LD 19 LD 43 49 70 8816 ETLRim Exit NL SPAR#NC-E11LD 19 43 70 8804 ETLInterchangeable CoreI/CK-7Const. Core7190224Door Stop481HBalance of hardwareExisting to remain	Rim Exit Sec CR x SPAR#NC-E11LD 19 LD 43 49 70 8816 ETLUS32DRim Exit NL SPAR#NC-E11LD 19 43 70 8804 ETLUS32DInterchangeable CoreI/CK-7626Const. Core7190224GreenDoor Stop481HUS26DBalance of hardwareExisting to remain

<u>Set: 6.0</u>

Doors: D105A-2 Description: Add Pr SN200 Narrow Exit x 8510 x Less Trim - Loop

1	Rim Exit SPAR NC-E11	LD 19 TB 43 8510 EO	US32D	SA
1	Rim Exit xSPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8504 Less	Trim	US32D
	SA			
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
2	Door Stop	462	US2C	RO
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Power Supply	Provided by security		SU
1	Balance of hardware	Existing to remain		OT

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times. Reuse existing trim.

Set: 7.0

Doors: C101-3

Description: Add SN200 Narrow Exit 8504 x 8510, Loop

1	Rim Exit SPAR NC-E11	LD 19 TB 43 8510 EO	US32D	SA
1	Rim Exit xSPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8504 Less	Trim	US32D
	SA			
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
2	Door Stop	462	US2C	RO
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Power Supply	Provided by security		SU
1	Balance of hardware	Existing to remain		OT

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times.

Set: 7.1

Doors: A109D-2 Description: Add SN200 Narrow Exit 8504 Loop

1	Rim Exit xSPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8504 Less	s Trim	US32D
	SA			
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
2	Door Stop	462	US2C	RO
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Power Supply	Provided by security		SU
1	Balance of hardware	Existing to remain		OT

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times.

<u>Set: 8.0</u> Doors: D106-2 Description: Add SN200 Exit, Loop - Peep

1 Rim Exit x SPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8804	US32D	SA
-------------------------------	------------------------------	-------	----

1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	462	US2C	RO
1	Gasketing	2891APK (head & jambs)		PE
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Power Supply	Provided by security		SU
1	Balance of hardware	Existing to remain		OT
2	Viewer	622 x door thickness	DCRM	RO

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times. Reuse existing Trim. Remove cylinder dogging on exiting rail with 68-1375 mounting rail insert

<u>Set: 9.0</u>

Doors: D107-2 Description: Add SN200 Lock, Loop

1	SN200 Mort Lock	70 SN200-82271 OL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	462	US2C	RO
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Power Supply	Provided by security		SU
1	Balance of hardware	Existing to remain		OT

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times. Reuse existing Trim. Remove cylinder dogging on exiting rail with 68-1375 mounting rail insert

Set: 10.0

Doors: C100-1, E124A-3, E149A-1, E150A-1, E207A-1, E223-1, E226A-1, E246A-1, E256-1, F101-2 Description: Existing - Add 8204

1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Set: 10.1

Doors: C108-2, C109-2 Description: Existing - Add 8204 - Surface bolt

1	Surface Bolt	580-12 \widehat{a} top only	US26D	RO
1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT
<u>Se</u> De	e <u>t: 11.0</u> escription: Not Used			
1	Set	Not Used		OT

Set: 12.0

Doors: E205-2

Description: Existing - Add 8204 - HO Closer - Classroom

1	Storeroom/Closet Lock	70 8204 LL	US26D	SA	
1	Interchangeable Core	I/CK-7	626	BE	
1	Const. Core	7190224	Green	BE	
1	Door Closer w/ HO	TB 351 H (inswing)/ PSH (outswing)	As Req	EN	SA
1	Door Stop	481H	US26D	RO	
1	Balance of hardware	Existing to remain		OT	

Set: 13.0

Doors: E112-1, E124-1, E140-1, E149-1, E150-1, E207-2, E226-2, E236-2, E245-2, E246-2 Description: Existing - Add 8204 - Rated Classroom

1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Set: 14.0

Doors: B109-1, E112-2, E124-2, E140-2, E149-2, E150-2, E207-1, E226-1, E236-1, E245-1, E246-1 Description: Existing - Add 8238 - Rated Classroom

1	Classroom Security Intruder Lock V01 EMB 70 8238 VN1L 90-3/8" Collar		llar	US26D
	SA			
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Set: 15.0

Doors: A106-1, A107-1, A109-1, D101-1, D102-1, D107A-1, E101-1, E102-1, E105-1, E113-1, E115-1, E125-1, E127-1, E131-1, E133-1, E134-1, E136-1, E138-1, E139-1, E143-1, E145-1, E147-1, E148-1,

E151-1, E153-1, E202-1, E203-1, E204-1, E205-1, E206-1, E208-1, E210-1, E212-1, E213-1, E220-1, E222-1, E224-1, E225-1, E227-1, E229-1, E230-1, E232-1, E239-1, E241-1, E243-1, E244-1, E247-1, E249-1 Description: Existing - Add 8238 - HO Closer 1 Classroom Security Intruder Lock V01 EMB 70 8238 VN1L 90-3/8" Collar US26D SA 2 Interchangeable Core I/CK-7 626 BE 2 Const. Core 7190224 Green BE 1 Door Closer w/ HO TB 351 H (inswing)/ PSH (outswing) As Req EN SA 1 Door Stop 481H US26D RO 1 Balance of hardware Existing to remain OT

Set: 15.1

Doors: A102-1, B103-1 Description: Existing - Add 8238

1	Classroom Security Intruder Lock SA	V01 EMB 70 8238 VN1L 90-3/8" Col	llar	US26D
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Set: 16.0

Description: Not Used

1 Set	Not Used	OT
Set: 17.0		
Doors: A100A-1, A1	00B-1, A100B-2, A100C-1, A100C-2, A100E-1,	A100F-1, A100G-1, A100H-1,
A100H-2, A100M-1,	A101-1, A103-1, A104-1, A104-2, A104A-1, A	104B-1, A104C-1, A104D-1, A105-
1. A105A-1. A105B-	I. A105C-1. A105D-1. C105E-1. E106-1. E107-	1. E108-1. E110-1. E111-1

Description: Existing - Add 8205

1	Office/Entry Lock	70 8205 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT

Set: 18.0

Doors: E122-1, E123-1, E218-1, E219-1 Description: Existing - Add 8250 - HO Closer

1	Hotel Guest Lock Lock	V20 LC 8250 VN1L	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Mortise Cylinder for Hotel Lock	1E-7G4 C208 RP3	626	BE

1	Surface Closer	TB 351 H	EN	SA
1	Door Stop	481H	US26D	RO
1	Balance of hardware	Existing to remain		OT
Se	t: 19.0			
D	oors: A100K-1, E131A-1			
D	escription: Existing - Add 8265			
1		V20 9265 VN11		C A
1	Privacy Lock	V 20 8203 VINIL	US20D	SA DO
1	Door Stop	40111 Evisting to remain	0520D	KU OT
1	Balance of hardware	Existing to remain		01
Se	et: 20.0			
D	oors: F100-2			
D	escription: Existing Pr- Add HO Clo	ser		
2	Surface Closer	TD 251 DSH	FN	S۸
$\frac{2}{2}$	Door Stop	10 551 1 511 A21H	LIN LIS26D	BO BO
2 1	Balance of hardware	Fyisting to remain	0320D	
1	Balance of hardware	Existing to remain		01
Se	et: 21.0			
D	oors: A106-2, A107-2			
D	escription: **Sgl Ext - ASF - Exit -S	N200 ETL- Closer - Access Control		
1	Continuous Hinge	CEM SI E-HD1 PT y Dr. Ht		ÞF
1	Electric Power Transfer	EL_CEPT	630	SU
1	Rim Fxit xSPAR04867/NC-F11	19 I D TB 43 70 56-SN200-8504 FTI	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const Core	7190224	Green	BE
1	Kit	581-1/ 581-2 as required	EN	SA
1	Surface Closer	TB 351 P10	EN	SA
1	Door Stop	462	US2C	RO
1	Sweep IDF/MDF/Alum	18061CNB x Dr. Width	0.520	PE
1	Threshold	2005AT MSES25SS X Opening Widt	h	PE
1	Perimeter Seal	By door mfgr		OT
1	ElectroLvnx Harness	OC-C1500P		MK
2	ElectroLynx Harness	OC-C***P (length as rea'd)		MK
1	Door Position Switch	By Security.		OT
1	Power Supply	Provided by security		SU

Notes: Operation: Doors normally closed and locked. Valid card at the card reader retracts the latch on the active leaf for entry. Free egress at all times. Door status monitored. Confirm specified hardware is compatible with aluminum door manufacturer.

Set: 22.0

Doors: B115B-1 Description: **Pr Ext - ASF - Exit Device- SN200/DT - Mullion - Closer -Access Control

1	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE	
1	Continuous Hinge	CFM SLF-HD1 PT x Dr. Ht.		PE	
1	Electric Power Transfer	EL-CEPT	630	SU	
1	Mullion	KR822 (FLK as req)	600	PR	
2	Stabilizer	ST989	Dull Blac	ck	PR
1	Spacer	MCS822	689	PR	
1	Rim Exit x SPAR#NC-E11	LD TB 19 43 8510 862	US32D	SA	
1	Rim Exit xSPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8504 862	US32D	SA	
2	Interchangeable Core	I/CK-7	626	BE	
1	Mullion Cylinder	70 34 x 1KB-3	US32D	SA	
2	Const. Core	7190224	Green	BE	
2	Kit	581-1/ 581-2 as required	EN	SA	
2	Surface Closer	TB 351 P10	EN	SA	
2	Door Stop	462	US2C	RO	
2	Sweep IDF/MDF/Alum	18061CNB x Dr. Width		PE	
1	Threshold	2005AT MSES25SS X Opening Widtl	1	PE	
1	Perimeter Seal	By door mfgr		OT	
1	ElectroLynx Harness	QC-C1500P		MK	
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK	
2	Door Position Switch	By Security.		OT	
1	Power Supply	Provided by security		SU	

Notes: Operation: Doors normally closed and locked. Valid card at the card reader retracts the latch on the active leaf for entry. Free egress at all times. Door status monitored. Confirm specified hardware is compatible with aluminum door manufacturer.

Set: 22.1

Doors: A006-1

Description: **Pr Ext - ASF - Exit Device- SN200/DT -KR Mullion - Closer -Access Control - Dog

1	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE	
1	Continuous Hinge	CFM SLF-HD1 PT x Dr. Ht.		PE	
1	Electric Power Transfer	EL-CEPT	630	SU	
1	Mullion	KR822 (FLK as req)	600	PR	
2	Stabilizer	ST989	Dull Blac	ck	PR
1	Spacer	MCS822	689	PR	
1	Rim Exit xSPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8504 862	US32D	SA	
1	Rim Exit x SPAR#NC-E11	19 TB 43 8510 862	US32D	SA	
2	Interchangeable Core	I/CK-7	626	BE	
1	Rim Cylinder	70 34 X #90 - 1/2	US32D	SA	
2	Const. Core	7190224	Green	BE	
2	Kit	581-1/ 581-2 as required	EN	SA	
2	Surface Closer	TB 351 P10	EN	SA	
2	Door Stop	462	US2C	RO	
2	Sweep IDF/MDF/Alum	18061CNB x Dr. Width		PE	
1	Threshold	2005AT MSES25SS X Opening Width	h	PE	
1	Perimeter Seal	By door mfgr		OT	
1	ElectroLynx Harness	QC-C1500P		MK	

2 ElectroLynx Harness	QC-C***P (length as req'd)	MK
2 Door Position Switch	By Security.	OT
1 Power Supply	Provided by security	SU

Notes: Operation: Doors normally closed and locked. Valid card at the card reader retracts the latch on the active leaf for entry. Free egress at all times. Door status monitored. Confirm specified hardware is compatible with aluminum door manufacturer.

Set: 23.0

Doors: A001-2

Description: **Pr Ext - ASF - Exit Device- 2N/DT - KR Mullion - Closer -Access Control

1	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE	
1	Continuous Hinge	CFM SLF-HD1 PT x Dr. Ht.		PE	
1	Electric Power Transfer	EL-CEPT	630	SU	
1	Mullion	KR822 (FLK as req)	600	PR	
2	Stabilizer	ST989	Dull Blac	k l	PR
1	Spacer	MCS822	689	PR	
1	Rim Exit x SPAR#NC-E11	LD TB 19 43 8510 862	US32D	SA	
1	Rim Exit xSPAR04867/NC-E11	LD 19 TB 43 56 70 8504 862	US32D	SA	
2	Interchangeable Core	I/CK-7	626	BE	
1	Rim Cylinder	70 34 X #90 - 1/2	US32D	SA	
2	Const. Core	7190224	Green	BE	
2	Kit	581-1/ 581-2 as required	EN	SA	
2	Surface Closer	TB 351 P10	EN	SA	
2	Door Stop	462	US2C	RO	
2	Sweep IDF/MDF/Alum	18061CNB x Dr. Width		PE	
1	Threshold	2005AT MSES25SS X Opening Width	1	PE	
1	Perimeter Seal	By door mfgr		OT	
1	ElectroLynx Harness	QC-C1500P		MK	
1	ElectroLynx Harness	QC-C***P (length as req'd)		MK	
2	Door Position Switch	By Security.		OT	
1	Power Supply	Provided by security		SU	
1	Reader	By Security contractor		OT	

Notes: Operation: Doors normally closed and locked. Valid card at the card reader retracts the latch on the active leaf for entry. Free egress at all times. Door status monitored. Confirm specified hardware is compatible with aluminum door manufacturer. Existing AI phone to remain.

At existing doors and frames, verify all existing conditions and modify hardware as required prior to purchase.

<u>Set: 24.0</u> Doors: A001-1 Description: **Pr Ext - ASF - Exit Device- NL x DT - Mullion - Closer

Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE	
Mullion	KR822 (FLK as req)	600	PR	
Stabilizer	ST989	Dull Blac	k	PR
Spacer	MCS822	689	PR	
Rim Exit x SPAR#NC-E11	LD TB 19 43 8510 862	US32D	SA	
Rim Exit xNC-E11	LD 19 TB 43 70 8504 862	US32D	SA	
Interchangeable Core	I/CK-7	626	BE	
Rim Cylinder	70 34 X #90 - 1/2	US32D	SA	
Const. Core	7190224	Green	BE	
Kit	581-1/ 581-2 as required	EN	SA	
Surface Closer	TB 351 P10	EN	SA	
Door Stop	462	US2C	RO	
Sweep IDF/MDF/Alum	18061CNB x Dr. Width		PE	
Threshold	2005AT MSES25SS X Opening Width	1	PE	
Perimeter Seal	By door mfgr		OT	
Door Position Switch	By Security.		OT	
	Continuous Hinge Mullion Stabilizer Spacer Rim Exit x SPAR#NC-E11 Rim Exit xNC-E11 Interchangeable Core Rim Cylinder Const. Core Kit Surface Closer Door Stop Sweep IDF/MDF/Alum Threshold Perimeter Seal Door Position Switch	Continuous HingeCFM SLF-HD1 x Dr. Ht.MullionKR822 (FLK as req)StabilizerST989SpacerMCS822Rim Exit x SPAR#NC-E11LD TB 19 43 8510 862Rim Exit xNC-E11LD 19 TB 43 70 8504 862Interchangeable CoreI/CK-7Rim Cylinder70 34 X #90 - 1/2Const. Core7190224Kit581-1/ 581-2 as requiredSurface CloserTB 351 P10Door Stop462Sweep IDF/MDF/Alum18061CNB x Dr. WidthThreshold2005AT MSES25SS X Opening WidtlPerimeter SealBy door mfgrDoor Position SwitchBy Security.	Continuous HingeCFM SLF-HD1 x Dr. Ht.MullionKR822 (FLK as req)600StabilizerST989Dull BlackSpacerMCS822689Rim Exit x SPAR#NC-E11LD TB 19 43 8510 862US32DRim Exit xNC-E11LD 19 TB 43 70 8504 862US32DInterchangeable CoreI/CK-7626Rim Cylinder70 34 X #90 - 1/2US32DConst. Core7190224GreenKit581-1/ 581-2 as requiredENSurface CloserTB 351 P10ENDoor Stop462US2CSweep IDF/MDF/Alum18061CNB x Dr. WidthThreshold2005AT MSES25SS X Opening WidthPerimeter SealBy door mfgrDoor Position SwitchBy Security.	Continuous HingeCFM SLF-HD1 x Dr. Ht.PEMullionKR822 (FLK as req) 600 PRStabilizerST989Dull BlackSpacerMCS822 689 PRRim Exit x SPAR#NC-E11LD TB 19 43 8510 862US32DSARim Exit xNC-E11LD 19 TB 43 70 8504 862US32DSAInterchangeable CoreI/CK-7 626 BERim Cylinder70 34 X #90 - 1/2US32DSAConst. Core7190224GreenBEKit $581-1/581-2$ as requiredENSASurface CloserTB 351 P10ENSADoor Stop 462 US2CROSweep IDF/MDF/Alum18061CNB x Dr. WidthPEThreshold2005AT MSES25SS X Opening WidthPEPerimeter SealBy door mfgrOTDoor Position SwitchBy Security.OT

Notes: At existing doors and frames, verify all existing conditions and modify hardware as required prior to purchase.

Set: 24.1

Doors: A006-2

Description: **Pr Ext - ASF - Exit Device- NL x DT - Mullion - Closer - Dog

2	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE	
1	Mullion	KR822 (FLK as req)	600	PR	
2	Stabilizer	ST989	Dull Blac	k	PR
1	Spacer	MCS822	689	PR	
1	Rim Exit x SPAR#NC-E11	19 TB 43 8510 862	US32D	SA	
1	Rim Exit xNC-E11	LD 19 TB 43 70 8504 862	US32D	SA	
2	Interchangeable Core	I/CK-7	626	BE	
1	Rim Cylinder	70 34 X #90 - 1/2	US32D	SA	
2	Const. Core	7190224	Green	BE	
2	Kit	581-1/ 581-2 as required	EN	SA	
2	Surface Closer	TB 351 P10	EN	SA	
2	Door Stop	462	US2C	RO	
2	Sweep IDF/MDF/Alum	18061CNB x Dr. Width		PE	
1	Threshold	2005AT MSES25SS X Opening Widtl	1	PE	
1	Perimeter Seal	By door mfgr		OT	
2	Door Position Switch	By Security.		OT	

Notes: At existing doors and frames, verify all existing conditions and modify hardware as required prior to purchase.

<u>Set: 25.0</u> Doors: B107B-2 Description: **Pr Ext - Lock- Closer

2	Continuous Hinge	CFM HD1 x Dr. Ht.		PE
1	Surface Bolt	580-12 @ top only	US26D	RO
1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 P10	EN	SA
2	Door Stop	462	US2C	RO
1	Astragal Set (2)	18061CNB x Dr. Ht		PE
1	Gasketing	2891APK (head & jambs)		PE
1	Rain Guard	346C x Frame Width		PE
2	Sweep	345ANB x Dr. Width		PE
1	Threshold	2005AT MSES25SS X Opening Widt	h	PE
2	Door Position Switch	By Security.		OT

Notes: Closer on active leaf.

<u>Set: 26.0</u> Doors: C105G-1

Description: **Sgl - ExT -HM - EX FR Exit- 2N Lever- Closer/HO - Access Control - Viewer - Keedex

1	Continuous Hinge	CFM HD1 x Dr. Ht.		PE
1	Rim Exit 2N SPAR04867/NC-E11	LD 19 TB 43 56 70 8804 ETL	US32D	SA
1	Vandal Resistant Trim	826	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 PSH	EN	SA
1	Door Stop	462	US2C	RO
1	Gasketing	2891APK (head & jambs)		PE
1	Rain Guard	346C x Frame Width		PE
1	Sweep	345ANB x Dr. Width		PE
1	Sweep IDF/MDF/Alum	18061CNB x Dr. Width		PE
1	Threshold	2005AT MSES25SS X Opening Widt	h	PE
1	ElectroLynx Harness	QC-C1500P		MK
1	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Door Position Switch	By Security.		OT
1	Power Supply	Provided by security		SU
2	Viewer	622 x door thickness	DCRM	RO
1	Keedex Lock Protector	K12S - SGT		OT

Notes: Operation: Doors normally closed and locked. Valid card at the card reader retracts the latch on the active leaf for entry. Free egress at all times. Door status monitored. Confirm specified hardware is compatible with door manufacturer.

Set: 26.1

Doors: **B**111-2 Description: **Sgl - ExT -HM - EX FR Exit- 2N xEx ES Lever- Closer - Access Control - Viewer

1	Continuous Hinge	CFM HD1 x Dr. Ht.		PE
1	Rim Exit SPAR NC-E11	LD 19 TB 43 70 8804 ETL	US32D	SA
1	Vandal Resistant Trim	826	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 P10	EN	SA
1	Door Stop	462	US2C	RO
1	Gasketing	2891APK (head & jambs)		PE
1	Rain Guard	346C x Frame Width		PE
1	Sweep	345ANB x Dr. Width		PE
1	Sweep IDF/MDF/Alum	18061CNB x Dr. Width		PE
1	Threshold	2005AT MSES25SS X Opening Widt	h	PE
1	ElectroLynx Harness	QC-C1500P		MK
1	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Loop	DL-2		AK
1	Door Position Switch	By Security.		OT
1	Power Supply	Provided by security		SU
2	Viewer	622 x door thickness	DCRM	RO

Notes: Operation: Doors normally closed and locked. Valid card at the card reader retracts the latch on the active leaf for entry. Free egress at all times. Door status monitored. Confirm specified hardware is compatible with door manufacturer.

Existing electric strike to remain- Add doorbell linked to 2N

Set: 27.0

Doors: A005-2, B101H-2

Description: **Sgl - ExT -HM - Exit- SN200 - Closer - Access Control

1	Continuous Hinge	CFM HD1 PT x Dr. Ht.		PE
1	Electric Power Transfer	EL-CEPT	630	SU
1	Rim Exit x SPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8804	US32D	SA
1	Vandal Resistant Trim	826	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 P10	EN	SA
1	Door Stop	462	US2C	RO
1	Gasketing	2891APK (head & jambs)		PE
1	Rain Guard	346C x Frame Width		PE
1	Sweep	345ANB x Dr. Width		PE
1	Threshold	2005AT MSES25SS X Opening Widt	h	PE
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Position Switch	By Security.		OT
1	Power Supply	Provided by security		SU
2	Viewer	622 x door thickness	DCRM	RO

Notes: Doors are normally closed and secure. Presentation of valid credential will allow entry by pull. Upon loss of power, doors will remain secure. Free egress at all times.

Set: 28.0

Doors: **B101B-2**

Description: **Pr Ext - Storeroom/Mechanical - Closer

2	Continuous Hinge	CFM HD1 x Dr. Ht.		PE
1	Surface Bolt	580-12 @ top only	US26D	RO
1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
2	Surface Closer	TB 351 P10	EN	SA
2	Door Stop	462	US2C	RO
1	Astragal Set (2)	18061CNB x Dr. Ht		PE
1	Gasketing	2891APK (head & jambs)		PE
1	Rain Guard	346C x Frame Width		PE
2	Sweep	345ANB x Dr. Width		PE
1	Threshold	2005AT MSES25SS X Opening Width	h	PE
2	Door Position Switch	By Security.		OT

Notes: Closer on active leaf.

Set: 29.0

Doors: S1000-1 Description: **Sgl - Ext- Mech/Storage/Fire Riser - Closer

1	Continuous Hinge	CFM HD1 x Dr. Ht.		PE
1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Surface Closer	TB 351 P10	EN	SA
1	Door Stop	462	US2C	RO
1	Gasketing	2891APK (head & jambs)		PE
1	Rain Guard	346C x Frame Width		PE
1	Sweep	345ANB x Dr. Width		PE
1	Threshold	2005AT MSES25SS X Opening Widtl	1	PE
1	Door Position Switch	By Security.		OT

Set: 30.0

Doors: A002-1

Description: **Pr Int- ASF - Vest SN200 Exit Device- NL/DT - Mullion - Closer /HO - Access Control

1	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE	
1	Continuous Hinge	CFM SLF-HD1 PT x Dr. Ht.		PE	
1	Mullion	KR822 (FLK as req)	600	PR	
2	Stabilizer	ST989	Dull Black		PR
1	Spacer	MCS822	689	PR	

1	Rim Exit x SPAR04867/NC-E11	19 LD TB 43 70 56-SN200-8804 ETL	US32D	SA
1	Rim Exit - DT x SPAR#NC-E11	19 LD TB 43 8810 ETL	US32D	SA
2	Interchangeable Core	I/CK-7	626	BE
1	Rim Cylinder	70 34 X #90 - 1/2	US32D	SA
2	Const. Core	7190224	Green	BE
2	Kit	581-1/ 581-2 as required	EN	SA
2	Surface Closer	TB 351 PSH	EN	SA
1	Perimeter Seal	By door mfgr		OT
1	ElectroLynx Harness	QC-C1500P		MK
2	ElectroLynx Harness	QC-C***P (length as req'd)		MK
2	Door Position Switch	By Security.		OT
1	Power Supply	Provided by security		SU

Notes: Operation: Doors normally closed and locked. Valid card at the card reader retracts the latch on the active leaf for entry. Free egress at all times. Door status monitored. Confirm specified hardware is compatible with aluminum door manufacturer.

<u>Set: 31.0</u>

Doors: A002-2

Description: **Pr Int- ASF - Vest Exit Device- NL/DT- Mullion - Closer /HO

2	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE	
1	Mullion	KR822 (FLK as req)	600	PR	
2	Stabilizer	ST989	Dull Blac	k	PR
1	Spacer	MCS822	689	PR	
1	Rim Exit SPAR NC-E11	LD 19 TB 43 70 8804 ETL	US32D	SA	
1	Rim Exit - DT x SPAR#NC-E11	19 LD TB 43 8810 ETL	US32D	SA	
2	Interchangeable Core	I/CK-7	626	BE	
1	Rim Cylinder	70 34 X #90 - 1/2	US32D	SA	
2	Const. Core	7190224	Green	BE	
2	Kit	581-1/ 581-2 as required	EN	SA	
2	Surface Closer	TB 351 PSH	EN	SA	
2	Door Stop	481H	US26D	RO	
1	Perimeter Seal	By door mfgr		OT	

<u>Set: 31.1</u> Doors: A005-1

Description: **Pr Int- ASF - Vest Exit Device- 8813x8813- Mullion - Closer /HO

2	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE	
1	Mullion	KR822 (FLK as req)	600	PR	
2	Stabilizer	ST989	Dull Blac	k	PR
1	Spacer	MCS822	689	PR	
2	Rim Exit x SPAR#NC-E11	LD 19 TB 43 70 8813 ETL	US32D	SA	
3	Interchangeable Core	I/CK-7	626	BE	
1	Rim Cylinder	70 34 X #90 - 1/2	US32D	SA	
3	Const. Core	7190224	Green	BE	
2	Kit	581-1/ 581-2 as required	EN	SA	

2	Surface Closer	TB 351 PSH	EN	SA
2	Door Stop	481H	US26D	RO
1	Perimeter Seal	By door mfgr		OT

Set: 32.0

Doors: D103-2, D104-2

Description: **Sgl - Exit Device-Security CL - Closer - STC

3	Hinges	By the STC door manufacturer		OT
1	Rim Exit Sec CR x SPAR#NC-E11	19 LD 43 49 70 8816 ETL	US32D	SA
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	462	US2C	RO
1	Gasket, threshold, door bottom	By the STC door manufacturer		OT

Notes: Door hardware is specified for design intent. Confirm hardware compatibility and design meets the door manufacturer's approved assembly testing for the STC level indicated. Add 31- to panic devices if doors are over 1 3/4" thick.

Set: 33.0

Doors: D103-1, D104-1

Description: **Sgl - Exit Device-NL - Closer - STC - Classroom

3	Hinges	By the STC door manufacturer		OT
1	Rim Exit SPAR NC-E11	LD 19 TB 43 70 8804 ETL	US32D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	462	US2C	RO
1	Gasket, threshold, door bottom	By the STC door manufacturer		OT

Notes: Door hardware is specified for design intent. Confirm hardware compatibility and design meets the door manufacturer's approved assembly testing for the STC level indicated. Add 31- to panic devices if doors are over 1 3/4" thick.

<u>Set: 34.0</u>

Doors: F100-1 Description: Sgl - ASF Exit Device-Security CL - Closer / HO

1	Continuous Hinge	CFM SLF-HD1 x Dr. Ht.		PE
1	Rim Exit Sec CR x SPAR#NC-E11	19 LD 43 49 70 8816 ETL	US32D	SA
2	Interchangeable Core	I/CK-7	626	BE
2	Const. Core	7190224	Green	BE
1	Kit	581-1/ 581-2 as required	EN	SA
1	Surface Closer	TB 351 PSH	EN	SA
1	Door Stop	481H	US26D	RO

1 Perimeter Seal By door mfgr

OT

<u>Set: 35.0</u>

Doors: D105A-1 Description: **Pr - Int Classroom Sec CL x NL -Closer - STC

2	Continuous Hinge	CFM HD1 x Dr. Ht.		PE	
1	Mullion	KR822 (FLK as req)	600	PR	
2	Stabilizer	ST989	Dull Blac	k	PR
1	Spacer	MCS822	689	PR	
2	Rim Exit x SPAR#NC-E11	LD 19 TB 43 70 8813 ETL	US32D	SA	
3	Interchangeable Core	I/CK-7	626	BE	
1	Mullion Cylinder	70 34 x 1KB-3	US32D	SA	
3	Const. Core	7190224	Green	BE	
2	Door Closer	TB 351 O/P9 (type as required)	EN	SA	
2	Door Stop	481H	US26D	RO	
1	Gasketing	2891APK (head & jambs)		PE	

Set: 36.0

Doors: A100-1, A100-2, A100-3 Description: **Sgl- Int ASF- SN200 Lock- Closer - Access Control

1	Continuous Hinge	CFM SLF-HD1 PT x Dr. Ht.		PE
1	Electric Power Transfer	EL-CEPT	630	SU
1	SN200 Mort Lock	70 SN200-82271 OL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	481H	US26D	RO
1	ElectroLynx Harness	QC-C1500P		MK
1	ElectroLynx Harness	QC-C***P (length as req'd)		MK
1	Door Position Switch	By Security.		OT
1	Power Supply	Provided by security		SU
1	Gasketing	By the frame manufacturer		OT

Notes: Operation: Door normally closed and secure. Valid card at the card reader will allow entry by trim. Free egress at all times. Door status is monitored. Install reader and cylinder on reception side.

Set: 37.0

Doors: D103C-1, D104E-1 Description: **Sgl - Storeroom

3	Hinge, Full Mortise	TA2714	US26D	MK
1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Stop	481H	US26D	RO

3	Silencer	608		RO		
<u>Set: 38.0</u> Doors: D104D-1 Description: **Sgl - Storeroom - Wide						
3 1 1 1 1 3	Hinge (heavy weight) Storeroom/Closet Lock Interchangeable Core Const. Core Door Stop Silencer	T4A3786 70 8204 LL I/CK-7 7190224 481H 608	US26D US26D 626 Green US26D	MK SA BE BE RO RO		
<u>Se</u> Do Do	e <mark>t: 39.0</mark> oors: D108-1 escription: **Sgl - Storeroom - Closer	- Gasket				
3 1 1 1 1 1 1	Hinge, Full Mortise Storeroom/Closet Lock Interchangeable Core Const. Core Door Closer Door Stop Gasketing	TA2714 70 8204 LL I/CK-7 7190224 TB 351 O/P9 (type as required) 481H 2891APK (head & jambs)	US26D US26D 626 Green EN US26D	MK SA BE BE SA RO PE		
<u>Set: 40.0</u> Doors: D103B-1, D104A-1 Description: **Sgl - 8237						
3 1 1 1 1 1	Hinge, Full Mortise Classroom Lock Interchangeable Core Const. Core Door Stop Silencer	TA2714 70 8237 LL I/CK-7 7190224 481H 608	US26D US26D 626 Green US26D	MK SA BE BE RO RO		
<u>Se</u> Do Do	Set: 41.0 Doors: D104C-1 Description: **Sgl - 8204 - Practice STC					
3	Hinges	By the STC door manufacturer		OT		

Hinges	By the STC door manufacturer		OT
Storeroom/Closet Lock	70 8204 LL	US26D	SA
Interchangeable Core	I/CK-7	626	BE
Const. Core	7190224	Green	BE
Door Stop	462	US2C	RO
Gasket, threshold, door bottom	By the STC door manufacturer		OT
	Hinges Storeroom/Closet Lock Interchangeable Core Const. Core Door Stop Gasket, threshold, door bottom	HingesBy the STC door manufacturerStoreroom/Closet Lock70 8204 LLInterchangeable CoreI/CK-7Const. Core7190224Door Stop462Gasket, threshold, door bottomBy the STC door manufacturer	HingesBy the STC door manufacturerStoreroom/Closet Lock70 8204 LLUS26DInterchangeable CoreI/CK-7626Const. Core7190224GreenDoor Stop462US2CGasket, threshold, door bottomBy the STC door manufacturer

Notes: Door hardware is specified for design intent. Confirm hardware compatibility and design meets the door manufacturer's approved assembly testing for the STC level indicated.

Add 31- to panic devices if doors are over 1 3/4" thick.

Set: 42.0

Doors: D103A-1 Description: **Sgl - 8204 - Practice STC - Rated

3	Hinges	By the STC door manufacturer		OT
1	Storeroom/Closet Lock	70 8204 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	462	US2C	RO
1	Gasket, threshold, door bottom	By the STC door manufacturer		OT

Notes: Door hardware is specified for design intent. Confirm hardware compatibility and design meets the door manufacturer's approved assembly testing for the STC level indicated. Add 31- to panic devices if doors are over 1 3/4" thick.

Set: 42.1

Doors: D104B-1 Description: **Sgl - 8237- Practice STC - Rated

3	Hinges	By the STC door manufacturer		OT
1	Classroom Lock	70 8237 LL	US26D	SA
1	Interchangeable Core	I/CK-7	626	BE
1	Const. Core	7190224	Green	BE
1	Door Closer	TB 351 O/P9 (type as required)	EN	SA
1	Door Stop	462	US2C	RO
1	Gasket, threshold, door bottom	By the STC door manufacturer		OT

Notes: Door hardware is specified for design intent. Confirm hardware compatibility and design meets the door manufacturer's approved assembly testing for the STC level indicated. Add 31- to panic devices if doors are over 1 3/4" thick.

Set: 43.0

Description: Not Used

1 S	et	Not Used	OT
Set:	44. <u>0</u>		
Dooi	rs: A004-3, B100-1, B100A-2, B10	0A-3, B111-3, C102-2, C104-1, C104-2, C104	4-3, C105-2, C105-
3, C1	109-3, E161-2, S103-2, S103-3, S1	05-3	
Desc	ription: **OH Coiling Doors - No	Work	
1 A	ll hardware	Existing to remain	ОТ

Existing to remain

Set: 45.0

Doors: S1000-2 Description: **OH Coiling Doors - Manual

1 All hardware	
----------------	--

By the door manufacturer

OT

Notes: Verify cylinder type required.

Set: 46.0

Doors: A006-3, A006-4, A100D-1, A100HA-1, A100J-1, A100L-1, A102A-1, A102B-1, A102C-1, A106A-1, A106A-2, A106B-1, A106B-2, A106C-1, A106C-2, A108-1, A109A-1, A109B-1, A109C-1, A109C-2, A109D-1, A109E-1, A110-1, A112-1, B100A-1, B100B-1, B100B-2, B100C-1, B100C-2, B101A-1, B101A-2, B101AA-1, B101AB-1, B101B-1, B101C-1, B101G-3, B101H-1, B102-1, B102A-1, B104A-1, B105-1, B105-2, B106-1, B107A-1, B107A-2, B107AA-1, B107AB-1, B107B-1, B107D-1, B107G-2, B107G-3, B107H-2, B108-1, B108B-1, B109A-1, B109B-1, B110-2, B110-3, B110A-1, B110B-1, B110B-2, B110C-1, B110D-1, B112-1, B112A-1, B113-1, B114-1, B115-1, B115-2, B115A-1, B118-1, B118-2, B118A-1, B118B-1, B118B-2, C102-1, C103-1, C105-1, C105A-1, C105B-1, C105BA-1, C105BB-1, C105C-1, C105D-1, C106-1, C107-1, C107-2, C108-1, C109-1, C112-1, C113-1, D100E-1, D101A-1, D101A-2, D101B-1, D102A-1, D105-1, D106A-1, D106B-1, D106C-1, D106D-1, D106E-1, D106F-1, D106G-1, D107-1, E100-1, E100B-2, E100G-2, E100J-1, E100K-1, E101A-1, E109-1, E111A-1, E111B-1, E111C-1, E112-3, E114-1, E114-2, E114A-1, E116-1, E120-1, E124A-1, E124A-2, E126-1, E126-2, E126A-1, E128-1, E131A-2, E132-1, E133A-1, E133B-1, E135-1, E135-2, E135A-1, E137-1, E141-1, E142-1, E144-1, E144-2, E144A-1, E146-1, E149-3, E150-3, E152-1, E152-2, E152A-1, E154-1, E158-1, E160-1, E161-1, E200-1, E200B-2, E200D-1, E207A-2, E207A-3, E209-1, E209-2, E209A-1, E211-1, E216-1, E221-1, E221-2, E221A-1, E226A-2, E226A-3, E228-1, E229-2, E229A-1, E231-1, E231-2, E231A-1, E233-1, E237-1, E238-1, E240-1, E240-2, E240A-1, E242-1, E246A-2, E248-1, E248-2, E248A-1, E250-1, E254-1, F100A-1, F100B-1, F100B-2, F101-1, F101A-1, F101B-1, S101-1, S102-1, S103-1, S104-1, S105-1, S105-2, S-201-1, S-201-2

Description: No Work

1	All hardware	Existing to remain		OT		
<u>Se</u> Do	Set: 47.0					
De	scription: **Attic Stock - EVERY CA	MPUS				
5	Classroom Security Intruder Lock Bo	dy	8238	US26D		
10	130KB	Thumbturn Kit	26D	SA		
50	Interchangeable Core	I/CK-7	626	BE		
50	Key Blanks	Best "A" Keyway		BE		
12	Regular Hold Open Arm	25-Н	EN	SA		
12	Parallel Hold Open Arm	25-PSH	EN	SA		
4	Electromagnetic Holder	994M 24VAC	689	RF		
5	994M Magnetic Parts	Door Armature 994510M	689	RF		
5	994M Magnetic Parts	Screw & Backplate 998300	689	RF		
5	994M Magnetic Parts	Swivel Armature 900-3	689	RF		
5	994M Magnetic Parts	Magnet Assembly 998369-3V	689	RF		
5	994M Magnetic Parts	Wall Cover 998315M	689	RF		

5 SN200 Reader

52 6027 (exit / lock)

26D SA

Notes: All attic stock ships direct to Director of Technical Services Cy Fair ISD Lockshop 11430 Perry Road Houston, Texas 77064 All attic stock to ship directly to Cy Fair from the distributor. DO NOT ship to jobsite.

END OF SECTION 087100

END OF SECTION 087100

SECTION 28 31 00 INTRUSION DETECTION SYSTEM (IDS)

PART 1 - GENERAL

1.1 RELATED WORK

- A. The following sections shall associate with this specification as applicable.
 - 1. General Conditions
 - 2. Supplementary Conditions
 - 3. Division 1
 - 4. Division 26 in its entirety.
 - 5. Division 27 in its entirety.
 - 6. Division 28 in its entirety.

1.2 WORK INCLUDED

- A. The Contractor shall expand existing microprocessor based Intrusion Detection System (IDS) as specified herein. The IDS shall include, but not be limited to, all control equipment, power supplies, power circuits, signal initiating and signaling devices, conduit, wire, fittings, and all other accessories required to provide a complete and operable system.
- B. IDS devices indicated are for reference and coordination purposes only. The installing contractor shall design and provide a complete system, meeting the requirement of specification. The Contractor shall provide all security system devices required for complete system perimeter coverage acceptable to all governing authorities, Architect and Owner.
- C. The IDS shall include intrusion detection coverage as shown on the system floor plans. Whether shown on the floor plans of not, complete coverage of the following areas shall be included:
 - 1. All access points into the building(s), including but not limited to:
 - a. Doors
 - b. roof hatches
 - c. windows
 - 2. Interior space motion detection at the following locations:
 - a. All level 1 spaces with window and/or doors
 - b. All entrances on any level
- D. The IDS shall be the product of a single manufacturer and consist of, but not be limited to the following:
 - 1. Control Panels
 - 2. Field Devices
 - 3. Enclosures
 - 4. Locks and Keys
 - 6. Power Supplies
 - 7. Accessories required to provide a complete IDS
 - 8. System O and I Manuals
 - 9. System Programming
 - 10. Batteries
 - 11. Wiring
- E. The IDS installer shall be responsible for, but not limited to:
 - 1. Tagging of all conductors and cables at each end.
 - 2. Provision and installation of IDS control panels.
 - 3. Provision and installation of IDS devices.
 - 4. Full coverage of all windows, doors, roof hatches.
 - 6. Preconstruction meeting with Owner's personnel, installing technician and project



superintendent.

- F. The contractor shall connect this location to the Owner's monitoring station as designated by the owner.
- G. The Contractor shall be responsible for identifying requirements for permits, from the local the Local Authority Having Jurisdiction (AHJ), for the installation of the alarm system specified herein and shall assist the Owner in obtaining the relevant alarm permits.
- H. All conduits and back boxes shall be provided and installed by the project's electrical contractor. In the event that there is no electrical contractor on the project, responsibility will be that of the IDS installer.
- I. The documents issued for this project are conceptual in nature, including but not limited to specifications and drawings. It shall be the responsibility of the approved installer to furnish a complete and functional system, including the items shown on the drawings, in the specifications, and items not designated in either. The installer's shop drawings and product data submittals shall represent a complete system, and documents accepted do not relieve the installer from being required to provide any materials, equipment, or labor to furnish a complete and functional system as recognized by the Project's Technology Consultant and the Owner.
- J. Contractor shall integrate all Emergency Eyewash systems into the IDS. Provide cabling connecting both systems. Coordinate with Emergency Eyewash systems contractor.
- K. Contractor shall connect the Intrusion Detection System to the electrical automatic transfer switch in order to notify the District Police Department when the building is on emergency power. Provide same, connected to existing transfer switch at the existing Commons building, servicing the existing High School buildings. Provide all required cabling and devices for fully functional systems.
- L. Scope of work includes expanding existing system.
- 1.3 CODES AND STANDARDS
 - A. The system shall comply with the applicable Codes and Standards as follows:
 - 1. National Electric Code, Article 760.
 - 2. National Fire Alarm Code (NFPA 72).
 - 3. Life Safety Code (NFPA 101)
 - B. Administrative Council for Terminal Attachments (ACTA):
 - 1. ANSI/TIA-968-A-2002 Technical Requirements for Connection of Terminal Equipment to the Telephone Network.
 - C. American National Standards Institute (ANSI):
 - 1. ANSI C63.4 Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.
 - D. California State Fire Marshal (CSFM):
 - 1. Title 19, California Code of Regulations, Building Material Listing Program (BML).
 - E. Federal Communications Commission (FCC):
 - 1. Title 47 C.F.R. Part 15; Class B Radiated and Conducted Emissions.
 - 2. Title 47 C.F.R. Part 68; rules governing the connection of Terminal Equipment (TE) to the Public Switched Telephone Network (PSTN).
 - F. The National Institute of Standards and Technology of the United States of America (NIST):
 - 1. Federal Information Processing Standards Publications 197 (FIPS 197) Advanced Encryption Standard (AES).

- G. International Organization for Standardization (ISO):
 - 1. 9001 Quality System.
- H. Underwriters Laboratories, Inc. (UL):
 - 1. UL 50 Enclosures for Electrical Equipment.
 - 2. UL 294 Access Control System Units.
 - 3. UL 365 Police Station Connected Burglar Alarm Units and Systems.
 - 4. UL 609 Local Burglar Alarm Units and Systems.
 - 5. UL 864 Control Units System for Fire-Protective Signaling System.
 - 6. UL 985 Household Fire Warning System Units.
 - 7. UL 1023 Household Burglar Alarm System Units.
 - 8. UL 1076 Proprietary Burglar Alarm Units and Systems
 - 9. UL 1610 Central Station Burglar-Alarm Units.
 - 10. UL 60950-1 Information Technology Equipment Safety.
 - 11. UL 636 Hold up alarms
- I. Local & State Building Codes
- J. Requirements of Local Authorities having Jurisdiction
- K. Requirements of American Disabilities Act (Public law 101-336).
- L. Texas Accessibility Standards (TAS)
- M. State Fire Marshall.
- N. State Insurance Code.

1.4 QUALITY ASSURANCE

- A. Contractor Qualifications:
 - 1. The installing contractor shall be the authorized representative of the IDS authorized/certified to sell, install, and service the proposed manufacturer's equipment. The installing contractor shall have represented the IDS manufacturer's product for at least five (5) years.
 - 2. The installing contractor shall be certified to install and setup the IDS software with Security Engine and Access Engine Modules attached.
 - 3. The installing contractor shall be licensed by the State of Texas as a security services contractor to design, sell, install, and service security alarm systems and access control system.
 - 4. The installing contractor shall provide 24-hour, 365 day per year emergency service with factory trained service technicians.
 - 5. The installing contractor shall have personnel on their staff that has been actively engaged in the business of designing, selling, installing, and servicing security alarm systems for at least ten (10) years.
 - 6. The System Installer must submit to the owner prior to starting any work the factory training certificates for all personnel that will be working on the specified IDS. No person is allowed to work on the IDS without proper manufacturer's certification.

1.5 SUBMITTALS AND CLOSE-OUT

- A. Product Data: Within fourteen (14) days of Notice to Proceed, the system installer shall furnish the following in a single consolidated submittal:
 - 1. Permits: The Contractor shall obtain all required permits and provide copies to the Owner / Architect / Engineer.
 - 2. Product Literature: Complete manufacturer's product literature for all system equipment, power supplies, cable, termination components, cable supports, cable labels, field devices, and other products to be used in the installation. In addition, whenever substitutions for recommended products are made, samples (when

requested by the Owner/Designer) and the manufacturer's supporting documentation, demonstrating compatibility with other related products shall be included. The submittal shall have some type of distinguishing marker or pointer to indicated what specific product is to be submitted.

- 3. Construction Schedule: A time-scaled Construction Schedule indicating general project deadlines and specific dates relating to the installation of the cable distribution system.
- 4. Specification Compliance: A letter shall be provided stating, by section and subsection, that the system installer complies with the ENTIRE specification section. If the installer intends to deviate from any portion of the specifications, a detailed explanation of reason in which the installer would like to deviate shall be provided in addition to the specification compliance letter. No deviations shall be acceptable until they have been accepted by the project's technology consultant.
- 5. Certifications: The System Installer shall submit all of the following certifications and the certifications must contain dates which are valid from the date of proposal and not expirer any sooner than 12 months after substantial completion of the project.
 - a. Manufacturer's Authorized Dealer/Installer Certification: This certification must be held by the proposing/installing contractor and state that the proposing/installing contractor is and authorized dealer/installer of the system specified within the project specifications. The certification must have been obtained by the office that is within a 75-mile radius of the project's location.
 - b. Installer Certification: This certification must be held by at least 25% of the, on-site, staff and be made available at the site if requested by the owner, architect, and/or project's technology consultant.
 - c. Licenses: This includes all licenses required by the state in which the work is being performed, the federal government, local authorities having jurisdiction, and any organization in that governs the specific system
- B. Shop Drawings: Submit the following items, for Owner review and approval, within twenty-eight (28) days of notice to proceed:
 - 1. Proposed circuit routing and circuit grouping plan prepared by a system registered designer. The designer's certification must be current. Identifiable, separate routing shall be shown for both the station cabling and any backbone trunk cabling.
 - 2. In addition to the cable routing, the submitted drawings shall indicate the following, even if the following is expected to be provided by the project's electrical or general contractor:
 - a. Location of all control equipment and remote power sources
 - b. Locations of all field devices and outlets
 - c. Location of wall penetrations (all penetrations shall be sleeved and contain protective bushings at both ends)
 - d. Location of sleeved wall and/or floor pass-thru
 - e. Size of sleeve at each location installed
 - f. Quantity of cable passing through each sleeve
 - g. Conduit routing, size, quantity, and stub-up locations for any floor mounted outlets or outlets installed in casework.
 - 3. Drawing Compliance: A letter shall be provided stating that the system installer complies with the entire project drawing, including all general, keyed, and notes to contractor. If the installer intends to deviate from any portion of the

specifications, a detailed explanation of reason in which the installer would like to deviate shall be provided in addition to the specification compliance letter. No deviations shall be acceptable until they have been approved by the project's technology consultant.

- C. Close-out Procedures: For review and acceptance, furnish an electronic copy of the following documents to the Architect / Engineer. Upon acceptance of the submitted close-out documents, provide four (4) copies on an electronic storage media (CD or USD Flash Drive) Labeled with the project name, date of submission, and the name of the submitting firm. Final copies shall be delivered directly to the project's Technology Consultant. The closeout submittals shall include the following and be packaged in a storable container with the physical storage media and any physical items listed:
 - 1. Inspection and Test Reports: During the course of the Project, the System Installer shall maintain an adequate inspection system to ensure that the materials supplied, and the work performed, conform to contract requirements. The System Installer shall provide written documentation that indicates that materials acceptance testing was conducted as specified. The System Installer shall also provide documentation, which indicates that all cable termination testing was completed and that all irregularities were corrected prior to job completion.
 - 2. Provide complete test reports for all cabling and devices that comprise system as outlined in this document.
 - 3. Include the Name, address and telephone of the authorized factory representative with a 24-hour emergency service number.
 - 4. The manual shall also include Manufacturer's data sheets and installation manuals/instructions for all equipment installed and a list of recommended spare parts.
 - 5. Generic or typical owner's instruction and operation manual shall not be acceptable to fulfill this requirement.
 - 6. An up-to-date record ("as-built") set of approved shop drawing prints that have been revised to show each and every change made to the system from the original approved shop drawings.
 - 7. As-built Drawings shall include cable pathways; device locations with correct labeling, control equipment locations, remote power supply locations, cross connect locations, and lightning protection locations. The as-built drawings shall be prepared using AutoCAD 2014 or later.
 - 8. All drawings must reflect point to point wiring, device address and programmed characteristics as verified in the presence of the engineer and/or the end user unless device addressing is electronically generated, and automatically graphically self-documented by the system.
 - 9. A copy of the manufacturer's warranty on the installed system.
 - 10. Any keys to cabinets and/or equipment and special maintenance tools required to repair, maintain, or service the system.
 - 11. Operating and Maintenance Instructions for all devices within the system. These instructions shall reflect any changes made during the course of construction, and shall be provided to the Owner, for their use, in a three-ring binder labeled with the project name and description. (4 copies)
 - 12. Upon completion of the work and at a time designated by the Architect or owner, provide formal training sessions for the Owner's operating personnel to include location, operation, and maintenance of all included systems and equipment. Provide a video copy of the training session as well as all sign in and training sign off sheets
 - 13. One (1) 30" x 42" laminated floor plan sheets illustrating device locations,

system wiring configuration, and cable designation. The System Installer shall provide one complete floor plan sheet at each panel location

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS AND INSTALLERS

- A. Acceptable Manufacturer: Bosch Security Systems, Inc.; 130 Perinton Parkway; Fairport, NY 14450. ASD. Toll Free Tel: 800-289-0096. Tel: 585-223-4060. Email: request info (presales.support@us.bosch.com). Web: www.boschsecurity.us.
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Division 1

2.2 CONTROL COMMUNICATOR (Panel)

- A. The IDS control panel shall be Bosch Security Systems, Inc., model # B9512G comprising a fully integrated intrusion, fire, and access control system. The control panel shall support the following:
 - 1. The IDS system is capable of being utilized as a combination Intrusion and Fire system per code. Fully integrated intrusion, access and fire functions allow users to interface with 1 system instead of3
 - 2. Telephone Line Module Interface with programmable options for signaling and supervision.
 - 3. Conettix IP based communication option provides high-speed, secure alarm transport and control.
 - 4. 32 programmable areas with perimeter and interior partitioning.
 - 5. 8 on-board, class B hardwired points with expansion capability for a total of at minimum 500 wired or wireless points.
 - 6. Compatibility with touch-screen color LCD, vacuum fluorescent, ATM style LCD or LED style Alarm CommandCenters.
 - 7. Local or remote programming, test, and diagnostic capability via a computer running the Remote Programming Software(RPS).
 - 8. The system shall support the use of an Apple iOS device for control. Functions to include arming, disarming, control of outputs, lock, unlock, cycle and secure access doors.
 - 9. Integrated real time clock, calendar, test timer and programmable scheduling capability for relay control and automatic execution of system functions based on a time / event.
 - 10. Provide 1.4 amps of power for standby operation and 2 amps of alarm power, both rated at 12 VDC.
 - 11. 2 wet-contact relay outputs and 1 Auxiliary wet-contact relay output with expansion capability for up to an additional 128 dry-contact relay outputs.
 - 12. Integrated battery charger with reverse hook up protection, battery supervision and battery deep discharge protection.
 - 13. Supervision of peripheral devices and communications interface(s).
- B. All small installations such as press boxes or tractor sheds shall use Bosch Model #5512 main control panel.
- C. Programmable features shall include:
 - 1. Independently control zones through an independent zone control keypad.
 - 2. Automatic test reports.
 - 3. Selective zone shunting.
 - 4. Custom text on the associated command centers.
- D. Zone Expansion Expanded to 500 (8 on-board, 492 off-board) individually annunciated

points of protection through the addition of a two-wire multiplex zone expansion system (ZONEX). Points of protection are annunciated with custom text at the B915 Command Center and they can be reported to a Radionics D6600Receiver.

- E. User Pass Codes nine hundred ninety-nine (999) user pass codes shall be available to identify the user when arming/disarming the system.
- F. Protective Circuits shall consist of zones designed for fire and/or panic (holdup, duress, or emergency) and/or burglary and/or supervisory. Each zone represents a protective circuit and shall accommodate normally opened and closed devices with end-of-line resistor supervision. Each of the 500 points are programmable as to whether they are controlled versus 24 hours; interior versus perimeter; instant versus delayed; silent versus audible (and if audible, pulsed or steady); and local orreporting.
 - 1. Additional programmable parameters for each point include the ability to suppress trouble or restoral reports, designate it as a priority zone (system cannot be armed if this point is off-normal), report two separate telephone numbers and provide for automatic shunting of points from the system in the event that the detection device malfunctions and creates numerous false alarms.
 - 2. Each POPIT shall accommodate normally opened and normally closed devices with end-of-line resistor supervisor.
 - 3. Minimum total points, 500.
- G. Entry/exit delays shall be independently programmable from 10 to 150 seconds. A prewarn audible shall be coincident with the entry delay.
- H. Programming of all system functions shall be achievable at system site or remotely via the use of the dial-up telephone network. Minimum programmable functions shall include:
 - 1. User pass codes, entry/exit delay times, master zone personality, day/date/time, telephone numbers, point of protection text labels, and bell time.
 - 2. A programmable system pass code shall be used to prevent unauthorized remote programming attempts.
 - 3. Remote programming capability shall be automatic or require user enabling at the discretion of the user.
- I. Remote control via the use of the dial-up telephone and owner's local area network shall include:
 - 1. System arming.
 - 2. Reset of audible signals.
 - 3. Activation/deactivation of relay contacts.
 - 4. Interrogation of battery.
 - 5. Zone and armed status.
 - 6. Enable/disable of reporting functions and removing reporting devices for servicing while the remainder of the system is operative.
- J. Recognitions shall include: UL for central station fire and/or burglary, local burglary and/or fire; FM for fire, California Fire Marshal for fire; and NYBSA for fire.
- K. Miscellaneous built-in features shall include:
 - 1. Real-time clock.
 - 2. Interrogator.
 - 3. Auto-answer modem.
 - 4. Phone line monitor.
 - 5. Loop start/ground start telephone interface.
 - 6. Auto bell test.
 - 7. Lug-in terminal strips, and user controlled zone bypass.
- L. Command centers shall be microprocessor-based
 - 1. 16 character illuminated alpha-numeric display.

- 2. Burglary and fire sounders.
- 3. Backlight 15-key touchpad.
- 4. Pre-warn tone.
- 5. The arming station shall have the ability to annunciate the English language format via the 16 character alphanumeric display by the following:
 - a. Master zone (alarm, service, faulted, and function), POPIT (alarm, service, faulted, missing, extra, function, and location), arm/disarm status (system diagnostics, time/day/date, and userprompts).
- 6. Additional features shall include local system test, sensor reset, panic and/or medical and/or duress alarm initiation, independent master zone by-pass with automatic restoration to normal status to next system arming, perimeter watch mode, user changeable pass codes, remote programming initiation, and system/monitoring service test.
- 7. Radionics model B915, and shall be functional at each of the locations shown on the floor plans.
- 8. Non-school oriented buildings will use Radionics Model B942 Touch Screen Keypads
- M. Modules and Accessories
 - 1. POPEX Module (Zone Expansion B299)
 - 2. B8103 Main Panel Enclosure & D101 Lock set- one required for the main panel and one for each quadrant of the project receiving a B299.
 - 3. D9002-5 6 location 3 hole Mounting plate- adapter used for hanging modules in all expansion panels.
 - 4. B430 Telephone Line Interface
 - 5. B308 Octo-Relay module provides eight form "C" dry contact relay outputs for a variety of programmable responses to alarm, trouble and other system conditions.
 - 6. Auxiliary power supplies as required for powering of motion detectors, Altronix Power Supply (Part # SMP10PM12P8) - one required for each quadrant of the project receiving a B299.

2.2 FIELD DEVICES

- Ceiling mounted 360 Degree, infrared sensors / microwave motion sensors. Model DS 9370
 - 1. Bracket for direct mounting to standard 3-1/2" and 4" electrical back boxes.
 - All units must be adjusted/masked to reduce false signals for the covered area.
 Contractor to provide a dedicated POPIT for each motion detector on the
 - project.
- B. Ceiling mounted 200ft Long Range infrared sensor. Model DS794Z
 - 1. Bracket for direct mounting to standard 3-1/2" and 4" electrical back boxes.
 - 2. All units must be adjusted/masked to reduce false signals for the covered area.
 - 3. Contractor to provide a dedicated POPIT for each motion detector on the project
- C. Wall mounted, high performance, Tri Tech PIR/Microwave sensor, Model ISC-CDL1-W15G
 - 1. Bracket for direct mounting to standard 3-1/2" and 4" electrical back boxes.
 - 2. All units to have areas of coverage, which would cause false alarm signals to be generated, masked out and adjusted to reduce false signals.
 - 3. Provide model correct protective wire cage in gymnasiums.
 - 4. Contractor to provide a dedicated POPIT for each motion detector on the project.
- D. Magnetic Door / Hatch / Overhead Contacts
 - 1. Where exposed contacts are used they shall be heavy duty switches protected by die cast aluminum housing and the leads shall be encased in steel armor jacket.

The leads must pass through the back box by the correct size twin screw cable clamp connector.

- 2. Magnetic Door / Hatch contacts shall be model Sentrol 2505A-L contact
- 3. Overhead Roll up contacts shall be model Ademco 958 contact
- 4. Contractor to provide a dedicated POPIT for each entry door, set of doors, roof hatch or rollup door on the project.
- E. Glass Break Detector
 - 1. Bracket for direct mounting to standard 3-1/2" and 4" electrical back boxes.
 - 2. Provide model correct protective wire cage in gymnasiums.
 - 3. Glass breaks shall be Model GE 5812-RND or Bosch DS-1108DI
 - 4. Contractor to Provide dedicated POPIT for each room of glass break detectors on the project.
- F. Sirens
 - 1. Shall be installed on Wall / Ceiling within 50 foot of every keypad location.
 - 2. Wired directly to corresponding relay module and not the main control panel.
 - 3. Sirens shall be Model SSX-52 Amseco.

2.3 WIRING

- A. All wiring shall be by the manufactures (Bosch/Radionics) specifications. All cable is preferred but not limited to be shielded.
- B. Each area of a building shall provide its own Popex Module(s), Power supply(ies) and enclosure(s) in that areas IDF. All areas considered should be at minimum 500ft from the main panel or as otherwise instructed by owner.
- C. All 120v Power shall be furnished by the contractor.
- D. All Security system conduits as show on the drawings shall be furnished by the contractor as part of their scope of work.
- E. Coordination with the electrical contractor is the responsibility of the Security Contractor to ensure all conduit is in place for a complete installation.
- F. All systems shall be connected to an emergency power source as available.
- G. Color code of all security intrusion detection system and access control wiring shall be purple in color.
- H. Approved Products:
 - 1. 18/2 unshielded: Belden #6300UE0071000 Tappan Wire & Cable, Inc. #P40020.122
 - 2. 18/4 unshielded:
 - Belden #6302UE0071000
 - Tappan Wire & Cable, Inc. #P41387.28 18/6 unshielded:
 - 3. 18/6 unshielded: Belden #6304UE0071000 Tappan Wire & Cable, Inc.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. All wiring shall be in accordance with the National Electrical Code, Local Codes, and article 760 of NFPA Standard 70. All wiring sizes shall conform to recommendations of the equipment manufacturer, and as indicated on the engineered shop drawings
- B. All wire shall be UL Listed CL2 for limited energy (300V) applications and shall be installed in conduit. Limited energy MPP wire mayber un open in return air ceiling plenums provided such wire is UL Listed for such applications and is of the low smoke producing fluorocarbon type and complies with NEC Article760 if so approved by the local authority

having jurisdiction.

- C. No AC wiring or any other wiring shall be run in the same conduit as security alarm wiring.
- D. All wire shall be installed in an approved conduit/raceway system (except where permitted by NEC and the local authority having jurisdiction). Maximum conduit "fill" not to exceed 40% per NEC.
- E. Minimum conduit size shall be 3/4" EMT. Install conduit per engineered shop drawings.
- F. Systems utilizing open wiring techniques with low smoke plenum cable shall provide conduit in all inaccessible locations such as inside walls, all mechanical / electrical rooms, or other areas where wiring might be exposed or subject to Damage.
- G. All vertical wiring and all main trunk / riser wiring shall be installed in a complete raceway / conduit system. All riser boxes shall be adequately sized for the number of conductors transversing the respective box as well as the number of terminations required.
- H. Provide a Green Systimax Category 6 telephone cable from the Master Control Panel to the Telephone Equipment room.
- I. (2) 18-4 wires will be run from the panel to the prior designated future portable connection location and labeled in plain English on both ends. These spares are to be left above the ceiling with 10ft of slack at minimum.
- J. Each set of glass breaks that protect one room are to be connected through one POPIT module for point identification of that room.
- K. Magnetic door contacts protecting separate hallways or entries are to be connected into separate POPIT modules for separate identification.
- L. Provide and install (1) dedicated POPIT for each device installed on the project including but, not limited to glass break detectors.
- M. All POPIT Modules shall be installed inside a 4"x4" junction box with a cover to be mounted on the wall nearest to the device the POPIT Module is associated with. All boxes shall be labeled with the appropriate corresponding point contained within.
- N. Integrate the security system to the remote monitoring station. Provide all hardware and cabling as required. Coordinate with Owner for approved remote monitoring service.
- O. All POPIT modules on project shall be mounted above drop ceiling in an area easily accessible by an 8 or 6 ft ladder.
- P. All keypads, sirens and POPEX modules shall have dedicated homeruns from each device to the master control panel. Do not daisy chain keypads or sirens. Chaining of modules is permitted if location serves multiple areas of coverage.
- Q. All POPIT modules and power supplies are required to be located on as-built drawings delivered to owner at or before substantial completion of project.
- R. Contractor shall install communication wire from provided exterior connection at freezer/cooler control panels to burglar alarm via POPIT module interface to notify panel should freezer/cooler encounter high temperature condition. Coordinate programming and testing of module with owner.
- S. All POPEX modules and power supplies shall be installed in IDF closets for that area of coverage with easy accessibility and a dedicated SDI2 homerun to the master control panel not to exceed 500ft.
- T. All device power runs shall be fused and clearly labeled in plain English at each main power source.
- U. All Eyewash stations shall have a dedicated POPIT module interface per device on the project and be wired Normally closed for monitoring purposes.
- V. Any generator on site must be monitored through a dry Normally closed contact connection to a dedicated POPIT module and tested to confirm its function for main

building AC Loss.

3.2 CABLE PATHWAYS

- A. Cable Support:
 - 1. All wire not installed inside conduit or a designated cable tray system shall be installed in a dedicated cable support system for the entire run of each cable. Including, but not limited to service loops.
 - a. Approved Cable Support Manufacturer:
 - Panduit Corporation
 - Erico/Caddy
 - **B-Line**

Supports shall be sized appropriately for the number of wires being supported. Reference the manufacturer's specifications for the suggested maximum cables per support size.

- 2. The approved cable support system shall be attached directly to the building steel at a serviceable height. In the event that the building steel is not 5' of the finished ceiling, the contractor shall provide a dedicated threaded rod extending within 5' of the finished ceiling and mount the cable support hook to the treaded rod.
- 3. The cable support shall be installed at a maximum of 5' on center.
- 4. All cable installed shall be attached to the cable support system with plenum rated Velcro and a plenum rated Velcro tie shall be installed between each cable support, to keep wires neatly bundled throughout the entire run. Tie wraps will only be allowed to be used inside the control panels as required to manage the wires within each type of panel.
- 5. Absolutely no cable, not installed in conduit, will be allowed to be attached directly to the building's steel or supported in any other method than that stated above.
- 6. It is the responsibility of the installing contractor to coordinate with all other trades on the project to insure that the pathway of this system does not interfere with the installation of the other trades and to prevent the installed product of other trades from putting strain on the installed wiring.
- B. Conduit / Raceway:
 - 1. All wire shall be installed in an approved conduit/raceway system (except where permitted by NEC and the local authority having jurisdiction). Maximum conduit "fill" shall not exceed 40% per NEC.
 - 2. Conduit and raceway system shall be installed as specified under the general electrical section of the specifications, and perNEC.
 - 3. Minimum conduit size shall be 3/4" EMT. Install conduit per engineered shop drawings.
 - 4. Systems utilizing open wiring techniques with low smoke plenum cable shall provide conduit in all inaccessible locations, inside concealed walls, all mechanical/electrical rooms, or other areas where wiring might be exposed or subject to damage.

3.3 SYSTEM OPERATION

- A. When an alarm condition is detected by any of the alarm initiating devices, the following functions shall occur:
 - 1. The system keypad's interior audible device shall sound until silenced by using proper security code or after system time out.
 - 2. A custom system alarm message shall be displayed on the LCD display. This display will show the alarm device location in plain English. Location and partition custom messages shall be field programmable.
- 3. The remote signaling tie connection shall be activated at the Owner's approved central security monitoring location and/or other Owner designated location.
- 4. Printer shall provide printed copy of events recorded in logger. Install adjacent to security panel.

3.4 SYSTEM ZONING AND PARTITIONING

- A. The system shall employ intelligent initiating devices and interface devices capable of being recognized and enunciated at the main system keypad and devices partition keypad.
- B. All zoning/device locations shall be field programmable.
- C. Input control zones shall be coordinated with the owner prior to final programming:

3.5 TESTING

- A. Submit a written test report from an authorized representative of the equipment manufacturer that the system has been 100% tested and approved. Final test shall be witnessed by Owner, Engineer, Electrical Contractor and performed by the equipment supplier. Final test report must be received and acknowledged by the Owner prior to substantial completion.
- B. Provide instruction as to proper use and operation of system, for the Owner's designated personnel.

3.6 WARRANTY

- A. Entire system shall be warranted against defects in materials and workmanship for a period of one (1) year from the date of substantial completion.
- B. Any Extended Manufacturer's Warranty will be provided to the Owner if the Subcontractor entitled to the job has an agreement for an extended warranty already in place with the Manufacturer.

3.7 SOFTWARE

A. Provide two electronic copies of the final programming and program software to the Owner's Police Technology Foreman after final approval.

END OF SECTION





O'Brien
281-664-1900
Pkwy North, Suite 900
0209-00
EW TO EXISTING
ON DURING THE MAINTAIN ACCEPTABLE REMOVAL OF EXCESS BUILDING. PROVIDE SOLUTION FOR DISTURE LEVEL THAT BOOKS AND
L REQUIRED POWER
S:
IT OF REFUSAL ON ALL OM THIS PROJECT. ED TO CHILLERS, AIR NSING UNITS, BMCS RE SENSORS, AND
GS ARE ECESSARILY REFLECT RESPONSIBILITY OF RIFY ALL DIMENSIONS DF ALL EQUIPMENT D/OR DUCT SYSTEMS. WN ON THIS PLAN ARE PRELIMINARY FIELD NSIBLE FOR FIELD SIZES OF MECHANICAL OF WORK.
YED NOTES:
GRILLE AND DUCTWORK



33 4 \sim LC U **S** Ы Ο Ζ M CT 5 ш РР F **SMIT** 10300 W/ CFISD O

tel: 281.486.4040











$\langle 3 \rangle$ REMOVE EXISTING RETURN AIR DEVICE.	
REMOVE EXISTING PORTION OF DUCTWORK AS INDICATED. SEE M2.04 FOR MORE INFORMATION.	











GENERAL NOTES:

- 1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
- 2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING DRAWINGS AND PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL
- SYSTEMS PRIOR TO THE START OF WORK.

MECHANICAL KEYED NOTES: (1) VERIFY SERVICE CLEARANCE WITH EQUIPMENT

- MANUFACTURER. COORDINATE WITH ALL TRADES NOT TO OBSTRUCT. 2 PROVIDE WIND-DRIVEN RAIN RESISTANT STATIONARY
- LOUVER RUSKIN MODEL EME520MD OR APPROVED EQUAL AND MINIMUM FREE AREA AS NOTED. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS
- SPECIFIED BY ARCHITECT. ③ SHEET METAL PLENUM ON REAR OF LOUVER WITH
- MOTORIZED DAMPER.
- $\langle \overline{4} \rangle$ PROVIDE WITH LINE VOLTAGE HUMIDITY SENSOR. 5 PROVIDE WITH LINE VOLTAGE MOTORIZED DAMPER FOR
- EXHAUST AND MAKEUP AIR LOUVER.























TO THE EXISTING HYDRONIC LOOP.

















todesk Docs://23072_CFSID_Phase_6_r22/CFISD-SMITH MS_MEPT_R22.r

2/13/2025 1:51:42 PM



M4.01

SYMBOL	STIVIDUL LEGEND DESCRIPTION (DISREGARD ITEMS NOT SHOWN ON PLANS)
GENERAL	KEY NOTE TAG
	REVISION TAG
\mathbb{Z}	SUPPLY AIR DUCTWORK RETURN AIR AND OUTSIDE AIR DUCTWORK
₽	EXHAUST AIR DUCTWORK
	SUPPLY AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	EXHAUST AIR DUCTWORK THROUGH HORIZONTAL PARTITION
▲ ◆	FIRE DAMPER (VERTICAL) FIRE DAMPER (HORIZONTAL)
	SMOKE DAMPER (VERTICAL)
	COMBINATION FIRE & SMOKE DAMPER (VERTICAL)
	COMBINATION FIRE & SMOKE DAMPER (HORIZONTAL) MANUAL BALANCING DAMPER (SEE DAMPER SCHEDULE)
	MOTORIZED DAMPER (SEE DAMPER SCHEDULE)
Ð	THERMOSTAT AND TEMPERATURE SENSOR HUMIDISTAT
	SMOKE DETECTOR
	HEAT DETECTOR ES
\square	GRILLE SIZE TAG (REFER TO GRILLE SIZE LEGEND) SUPPLY AIR GRILLE WITH FOUR-WAY THROW
	SUPPLY AIR GRILLE WITH THREE-WAY THROW
	SUPPLY AIR GRILLE WITH TWO-WAY CORNER THROW
	SUPPLY AIR GRILLE WITH ONE-WAY THROW RETURN AIR GRILLE
	RETURN AIR GRILLE WITH SOUND BOOT EXHAUST AIR GRILLE
	SUPPLY AIR SIDEWALL GRILLE RETURN AIR SIDEWALL GRILLE
20X12	RETURN AIR OPENING ABOVE CEILING
-CWS&R-	CONDENSER WATER SUPPLY & RETURN (TOTAL OF TWO
-CWS-	CONDENSER WATER SUPPLY
	CONDENSER WATER RETURN CHILLED WATER SUPPLY & RETURN (TOTAL OF TWO
-CHWS-	PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY) CHILLED WATER SUPPLY
-CHWR-	CHILLED WATER RETURN HOT WATER FOR HYDRONIC HEATING SUPPLY & RETURN (TOTAL OF TWO
-HWS&R-	PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
-HWR-	HOT WATER FOR HYDRONIC HEATING RETURN
—AD—	AUXILLARY CONDENSATE DRAIN LINE
—RLR—	REFRIGERANT LIQUID & GAS RECIRCULATION LINE (TOTAL OF TWO PIPES, ONLY ONE PIPE SHOWN FOR DRAWING CLARITY)
—RL— —HG—	REFRIGERANT LIQUID LINE REFRIGERANT HOT GAS LINE
—RS— —Ю	REFRIGERANT SUCTION LINE ELBOW UP
t- 4	ELBOW DOWN 90° ELBOW
· · · · · · ·	45° ELBOW
	TEE DOWN
	TOP BRANCH CONNECTION
	BOTTOM BRANCH CONNECTION FLANGE
 	CAP CONTINUATION
	FLOOR DRAIN (REFER TO PLUMBING DRAWINGS)
	GLOBE VALVE
	CHECK VALVE BUTTERFLY VALVE
∳ †Ţ	BUTTERFLY VALVE WITH OPERATOR PLUG VALVE
	TWO-WAY CONTROL VALVE THREE-WAY CONTROL VAI VE
	PRESSURE REDUCING VALVE
	BALL VALVE
	STRAINER UNION
	THERMOMETER WELL PETE'S PLUG
	PRESSURE GAUGE TEMPERATURE SENSOR IN PIPE
	VENTURI FLOW METER
	FLOW SWITCH FLOW MEASURING STATION
	EXPANSION JOINT FLEXIBLE CONNECTION
<u> </u>	GAUGE COCK SITE GLASS
- - \$	
<u>¥</u> X	ANCHOR
SUBSCRIP	TIPE GUIDE
AFF BBS	ABOVE FINISHED FLOOR BELOW BOTTOM OF STRUCTURE
BOD	BOTTOM OF DUCT BOTTOM OF PIPE
CA	
EA	
FPM NC	FEET PER MINUTE NORMALLY CLOSED
NO OA	NORMALLY OPEN OUTSIDE AIR
RA	RETURN AIR

15" x 15"	
16" x 16"	
18" x 18"	
20" x 20"	
22" x 22"	

	AIR HANDLING UNIT																		
FAN				COOLING HEATING									PIPE S TO COIL	IZE . (IN.)					
TATIC		CURR	ENT CH	ARAC.		AIR TEMPER	RATURE (°F)			WATER E'		ENTERING AIR	GAIR MIN.		WATER			ЦОТ	
SURE V.C)	POWER	V	PH	F	ENTERING DRY BULB	ENTERING WET BULB	LEAVING DRY BULB	LEAVING WET BULB	ENTERING TEMP (°F)	GPM	PRESSURE DROP (FT.)	TEMPERATURE (°F)	HEATING CAPACITY	ENTERING TEMP. (°F)	GPM	PRESSURE DROP (FT.)	WATER	WATER	
25	5.0	480	3	60	75.0	62.5	54.5	54.0	45	15.4	15.0	67.5	119,988	180.0	12.1	10.0	1 1/2"	1 1/4"	-
					98.0	79.0	54.5	54.0	45	17.1	15.0	27.0	37,125	180.0	3.8	10.0	1 1/2"	1"	
LOSS ATER C XTERN VER AS LECTRI IL PUL LEARAI E, MAIN EQUIRI	ES DUE TO D OILS WHERE AL STATIC P S REQUIRED CIAN. AS RECOM NCE AS REQ TENANCE, A ED BY NEC.	OUCTWO E APPLI RESSU TO ME MENDE UIRED ND INS	ork, ai Re to Et you D by u To ope Pectic	r devi . Dirty Obtain Jr Tota Nit En Acci Dn. Mai	CES, Y FILTER I TOTAL AL ESS AND INTAIN	REMARKS: 1. VELOCI 2. VELOCI 3. PROVID 4. PROVID 5. PROVID 6. PROVID 7. PROVID	TY NOT TO E TY NOT TO E E HORIZONT E CONSTANT E TOP DISCH E TWO-WAY E TWO-WAY	XCEED 500 FF XCEED 450 FF AL UNIT. ⁻ VOLUME UN IARGE. COOLING CO HEATING CO	PM ON COOL PM ON COOL IIT WITH VAR NTROL VALV NTROL VALV	ING COIL ING COIL IABLE FF ES. ES.	L. L. REQUENCY D	8. PROVII 9. PROVII 10. PROVII 11. SPLIT I AHU-5E 12. SECTIC (LISTEE ACCES FAN SE	DE HOT WAT DE HOT WAT DE UNIT WITH DEHUMDIFIC/ D. N INDICATEI D ABOVE). UI S SPACE, CO CTION.	ER COIL IN PI ER COIL IN RI H ANGLED FIL ATION UNIT T D SHALL BE S NIT INCLUDES OLING COIL A	RE-HEAT EHEAT F .TER SE(O HAVE STACKEE S ANGLE AND DIS(T POSITION. POSITION. CTION. AN OAU SECT O OAU FURNIS D FILTER MIXI CHARGE PLEN	TION MOUNT HED WITH A ING BOX, PR IUM. UNIT D	'ED ON TC \SSOCIAT' REHEAT CI OES NOT) EC

					F		SCHE	DULE					
		EXT. STATIC			CUF		HAR						MODEL
LOCATION	CEM		MAX RPM	HORSE POWER	Lat	P	E	SWITCHED	WITH	EANTYPE	DRIVE TYPE	MANUFACTURER	NUMBER
KILN	350	0.25	1800	0.25	120		60	T-STAT	-	ROOF	DIRECT	СООК	ACED
mm	mm	mm	mm	hunn	m	in	hun	mm	mm	MOUNTED	mm	mm	mm
STOR BLDNG	1250	0.50	1800	0.5	120	1	60	H-STAT	-	INLINE	BELT	COOK	SQN
MECH MEZZ	1250	0.75	1800	0.75	480	3	60	-	AHU-5D	INLINE	BELT	COOK	SQN
							R	EMARKS:					
TIC PRESSURE	INCLUDES LOSSE	ES DUE TO DUCT	WORK, AIR DEVIC	CES, DAMPERS, AN	ND DUCT /	MOUNT	ED 1	. PROVIDE WITH [DISCONNECT.		5. PROVI	DE WITH LINE VOL	TAGE MOTORIZI
ILS WHERE AP	PLICABLE. DIRTY	FILTER AND UNI	T CASING MUST F	3E ADDED TO EXT	ERNAL ST	TATIC	2	. PROVIDE WITH N	MOTORIZED DAM	PER.	FOR E	XHAUST AND MAKF	EUP AIR LOUVI
OBTAIN TOTAL	PRESSURE LOSS	. INCREASE HOR	SEPOWER AS RE	EQUIRED TO MEE	Γ YOUR ΤΟ	OTAL	3	. PROVIDE WITH F	AN SPEED CONT	ROLLER.	<u>A</u> ROVI	DE WITHLINE VOL	IAGE-HHMIDITX
S. COORDINAT	FE WITH ELECTRIC	CIAN.					4	. SUSPEND UNIT \	NITH FOUR THRE	ADED HANGER R	ODS 🥻 7. PROVI	DE WITH ROOF CU	RB AND BIRD SO
						0.1							

. MINIMUM RECOMMENDED CLEARANCE AROUND UNIT IS 12 INCHES ON NON-SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

ATTACHED TO TWO UNISTRUT RUNNERS SECURED TO COMPANY COMPANY COMPANY STRUCTURE. PROVIDE SPRING ISOLATION. REFER TO MANUFACTURER FOR MORE DETAILS.

	GRILLE								
MARK	SERVICE	TYPE	DAMPER	CONSTRUCTION MATERIAL	FINISH COLOR	MANUFACTURER	MODEL NUMBER	DESCRIPTION	
А	SUPPLY AIR	DIFFUSER	-	STEEL	WHITE	TITUS	TDC	EXPOSED T-BAR CEILING FRAME STYLE WITH 24"> ROUND NECK.	
В	RETURN AIR	DIFFUSER	-	STEEL	WHITE	TITUS	350RL	EXPOSED T-BAR CEILING FRAME STYLE WITH 2 LOUVERED FACE	
С	SUPPLY AIR	DIFFUSER	-	STEEL	WHITE	TITUS	TDC	SURFACE MOUNT CEILING FRAME STYLE WITH 22 CONE FACE. ROUND NECK.	
D	RETURN AIR	DIFFUSER	-	STEEL	WHITE	TITUS	350RL	SURFACE MOUNT CEILING FRAME STYLE WITH	
ER	RETURN AIR	-	-	-	-	-	-	EXISTING AIR DEVICE SHALL REMAIN. REUSE AN INDICATED CFM.	
ES	SUPPLY AIR	DIFFUSER/ GRILLE	-	-	-	-	-	EXISTING AIR DEVICE SHALL REMAIN. REUSE AN INDICATED CFM.	
F	EXHAUST AIR	GRILLE	-	STEEL	WHITE	TITUS	350RL	SURFACE MOUNT CEILING FRAME STYLE WITH 22 FACE. PERFERATED FACE.	
G	GRILLE	EXHAUST AIR	-	STEEL	WHITE	TITUS	350RL	DOUBLE DEFLECTION SIDEWALL GRILLE WITH HOI BARS. SURFACE MOUNTED (1)	
<u>general</u> 1. dampe 2. coori	ENERAL NOTES: DAMPERS NOTED AS U.L. SHALLBE A 'U.L.' CLASSIFIED CEILING RADIATION DAMPER WITH THERMAL BLANKET. COORDINATE FINAL AIR DEVICE LOCATION AND FINISH COLOR WITH ARCHITECT.								

<u>EMARKS</u>: . N/A

	DUCTLESS MINI-SPLIT - INDOOR UNIT									
		FAN				AIR TEMPER	RATURE (°F)		COOLING	
MARK		HORSE POWER	C C	URRE HARA	NT C.			MIN. TOTAL CAPACITY	MIN. SENS. CAPACITY	MINIMUM EER/
		(WATTS)	V	Р	F		WEI DOLD	(BTUH)	(BTUH)	SEER
DMS-1	375	40.0	208	1	60	75.0	62.5	18,000	14,400	15.0/-
DMS-2	900	74.0	208	1	60	75.0	62.5	34,200	27,360	15.0/-
DMS-3	375	40.0	208	1	60	75.0	62.5	18,000	14,400	15.0/-
DMS-4	375	40.0	208	1	60	75.0	62.5	18,000	14,400	15.0/-
GENERAL NOTES: 1. MAINTAIN MINIMUM CLEARANCE FOR COIL PULL AS RECOMMENDED BY UNIT MANUFACTURER.										

MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

<u>REMARKS</u>: 1. UNIT TO BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. 2. CONTROLLED BY PROGRAMMABLE WIRED THERMOSTAT.

3. REFRIGERANT LINES TO BE SIZED PER MANUFACTURER'S REQUIREMENTS. 4. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT.

6. WALL MOUNTED UNIT.

5. PROVIDE WITH LITTLE GIANT CONDENSATE PUMP MODEL VCMA-20ULS-C-PRO, 1/30 HP, 115V/1PH/60HZ.

۵	DUCTLE	ESS MII	NI-SPLI	T - (DUT	DOC	DR I	
	MIN. TOTAL	OUTDOOR	MINIMUM	CURR	ENT CH	ARAC.	RELA	
MARK	CAPACITY (BTUH)	AIR TEMP (°F)	EER/ SEER	V	PH	F	UN MA	
DMSCU-1	18,000	95	15.0/-	208		60	DM	
DMSCU-2	34,200	95	15.0/-	208		60	DM	
DMSCU-3	18,000	95	15.0/-	208		60	DM	
DMSCU-4	18,000	95	15.0/-	208		60	DM	
<u>GENERAL N</u> 1. MINIMUM	SENERAL NOTES:							

SERVICE SIDES AND 30 INCHES ON SERVICE SIDES. MAINTAIN MINIMUM CLEARANCE FOR CONDENSER AIR FLOW AS RECOMMENDED BY UNIT MANUFACTURER. MAINTAIN MINIMUM CLEARANCE AS REQUIRED TO OPEN ACCESS AND CONTROL DOORS ON UNIT FOR SERVICE, MAINTENANCE, AND INSPECTION. MAINTAIN MINIMUM ELECTRICAL CLEARANCE AS REQUIRED BY NEC.

<u>REMARKS</u>: PROVIDE WITH LOW AMBIENT CONTROL DOWN TO 20°F.

. PROVIDE WITH DISCONNECT SWITCH. . REFRIGERANT LINES TO BE SIZED PER MANUFACTURER'S REQUIREMENTS.

	F	RELIEF V	'ENT & O./	A. INTAKI	Ξ
		MAX. S.P.	MIN. THROAT		
MARK	CFM	(IN.WC.)	AREA	MODEL	SERVE
OAI-1	1250	0.25	2.5 SF	GR	AHU-3D
REMARKS:					
1. PROVIDE WIT	H ROOF CURB.				
2. PROVIDE WIT	H BIRD SCREEN.				

EQUAL. LOCATE PHOTOSENSOR SURFACEMOUNTED ON THE NORTH SIDE OF THE BUILDING.

LINE TY	PE LEGEND
	EXISTING TO REMAIN
	DISCONNECT AND REMO
	NEW WORK
DEMOLITION / EXIST FIELD OBSERVATIO DOCUMENTS. REPO DISTURBING EXISTI SUCH DISCREPANC VERIFY EXISTING CO IF THERE ARE ANY AND DRAWINGS PR CONTRACTOR SHAI	FING DRAWINGS ARE BASI N, AND WHEN AVAILABLE, ORT DISCREPANCIES TO A NG INSTALLATION, AND IM IES ARE DISCOVERED. CC ONDITIONS ON FIELD AND CONFLICTS BETWEEN EXI IOR TO COMMENCEMENT LL REMOVE SUCH EXISTIN

THE AREAS OF NEW CONSTRUCTION.

RETURNED ITEMS TO DISTRICT.

/12/2025 4:23:29 PM

sk Docs://23072_CFSID_Phase_6_r22/CFISD-SMITH MS_MEPT_R2

ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - AREA A Scale: 1/8" = 1'-0"

ELECTRICAL KEYED NOTES

SPECIFICATIONS AND DETAIL SHEETS.

INTERCEPT EXISTING NORMAL POWER CIRCUIT HOME RUN AND PROVIDE PER CIRCUIT (1) LISTED UL1008 TRANSFER SWITCH,(1) CONTACTOR WITH POLE QUANTITY AS REQUIRED CONTROLLED WITH BMCS. LOCATE ADJACENT TO NORMAL POWER PANEL SERVING THE LOAD, RE-USE EXISTING NORMAL POWER CIRCUIT AND NEW EMERGENCY POWER CIRCUIT AS SHOWN. EXTEND CONDUCTORS / CONDUIT WITH MATCHING SIZE. REFER TO

LINE TYPE LEGEND							
	EXISTING TO REMAIN						
— — — — DISCONNECT AND REMOVE							
NEW WORK							
CONTRACTOR TO FIELD COORDINATE FINAL LOCATION OF ALL REPLACEMENT AND NEW LIGHTING FIXTURES WITH EXISTING							

CEILING MOUNTED DEVICES, AND TO NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THE NEW LIGHTING LAYOUT PRIOR TO COMMENCEMENT OF WORK.

PROVIDE NEW LIGHTING DEVICES AND SWITCH BOX EXTENSIONS IN ALL AREAS WHERE GYPSUM BOARD OR OTHER WALL COVERING ADDS TO THE THICKNESS OF WALLS. SEE ARCHITECTURAL DRAWINGS FOR AREAS AFFECTED.

FOR BUILDING OCCUPIED/UNOCCUPIED ADJACENT TO OR IN THE BMCS MASTER PANEL; (1) MOMENTARY BMCS OVERRIDE TIME-OUT SWITCH FOR EXTERIOR FACADE LIGHTING ON/OFF AND (1) MOMENTARY BMCS OVERRIDE TIME-OUT SWITCH FOR PARKING LOT LIGHTING ON/OFF IN MAIN ELECTRICAL.

LIGHTING GENERAL NOTES CONNECT NEW LIGHT FIXTURES TO EXISTING NORMAL

- POWER CIRCUITS LEFT IN PLACE AFTER DEMOLITION OR NEW AS SHOWN. PROVIDE EMERGENCY CIRCUIT FOR HATCHED FIXTURES AND/OR EXIT SIGNS. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT TO EXISTING LOCATION AND/OR NEW FIXTURES. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 3500 W @ 277V. TYPICAL.
- LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW J-BOX ABOVE ACCESIBLE CEILING WITH 1/2-INCH FLEXIBLE STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET, "DAISY CHAINING"LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED FOR NON-ACCESIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE ¹/₂-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS
- RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO 26 05 33 CONDUIT SYSTEMS.
- PROVIDE NEW LIGHTING CONTROLS, SENSORS AND ASSOCIATED DEVICES, 20A EMERGENCY LOAD CONTROL RELAYS AND/OR TRANSFER SWITCHES. REFER TO
- SPECIFICATIONS AND DETAIL SHEETS. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBL CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO
- MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DLM. LOCATE DIGITAL LIGHTING CONTROLLER FOR
- CORRIDORS, GYM AND HIGH CEILING AREAS WITH NO ADJACENT ANCILLARY AREA ADJACENT TO NORMAL POWER PANEL SERVING THE LOAD. PROVIDE LABEL, GRID MARKERS WITH WORDING PER SPECIFICATIONS. LOCATE DIGITAL LIGHTING CONTROLLER FOR INSTRUCTIONAL SPACES AND OFFICES ABOVE ACCESSIBLE CEILING IN CORRIDOR DIRECTLY OUTSIDE
- ASSOCIATED SPACE, GRID MARKERS WITH WORDING PER SPECIFICATIONS. OCCUPANCY/VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED, CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER AND IECC-2015 C40
- SPACES WITH MULTIPLE OCCUPANCY/VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHEI
- CIRCUITS FROM EXISTING SOURCE AND/OR NEW AS SHOWN FOR EMERGENCY FIXTURES, EMERGENCY LOAD RELAYS, TRANSFER SWITCHES AND EXIT SIGNS. 10 COORDINATE LOCATION OF LIGHT FIXTURES IN ALL
- MECHANICAL AND ELECTRICAL ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. PROVIDE SEPARATE RACEWAY SYSTEMS FOR LIGHTING
- CONTROL SYSTEM, CONTROLS WIRING (DIMMERS OR OTHERWISE) SHALL NOT BE INSTALLED IN THE SAME RACEWAY AS LINE VOLTAGE. REFER TO 26 05 33.

B

D

ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - AREA D /Scale: 1/8" = 1'-0"

	Houston, TX 7	7064
	Registration: Project No:	F-4111 2024-00
LINE TYP	PE LEGE	ND
	EXISTING TO REM	<i>I</i> AIN
	DISCONNECT AN	D REMOV
	NEW WORK	
CONTRACTOR TO FIE REPLACEMENT AND CEILING MOUNTED D THERE ARE ANY COM AND THE NEW LIGHT OF WORK.	ELD COORDINATE NEW LIGHTING FI) DEVICES, AND TO N NFLICTS BETWEEN ING LAYOUT PRIO	FINAL LO (TURES V NOTIFY EN I EXISTIN R TO COM
PROVIDE NEW LIGHT EXTENSIONS IN ALL WALL COVERING AD ARCHITECTURAL DR	ING DEVICES AND AREAS WHERE GY DS TO THE THICKN AWINGS FOR ARE) SWITCH PSUM BC NESS OF N AS AFFEC
PROVIDE (1) MOMEN FOR BUILDING OCCU THE BMCS MASTER I	TARY BMCS OVER IPIED/UNOCCUPIE PANEL; (1) MOMEN	RIDE TIM D ADJACE TARY BM

salasobrien.com

Houston

LIGHTING GENERAL NOTES CONNECT NEW LIGHT FIXTURES TO EXISTING NORMAL POWER CIRCUITS LEFT IN PLACE AFTER DEMOLITION OR NEW AS SHOWN. PROVIDE EMERGENCY CIRCUIT FOR HATCHED FIXTURES AND/OR EXIT SIGNS. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT TO EXISTING LOCATION AND/OR NEW FIXTURES. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 3500 W @ 277V. TYPICAL. LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW

- J-BOX ABOVE ACCESIBLE CEILING WITH 1/2-INCH FLEXIBLI STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET, "DAISY CHAINING"LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED FOR NON-ACCESIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE 1/2-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS REQUIRED TO MAKE A TAP AT AN ACCESSIBLE J-BOX. RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO 26 05 33 CONDUIT SYSTEMS PROVIDE NEW LIGHTING CONTROLS, SENSORS AND
- ASSOCIATED DEVICES, 20A EMERGENCY LOAD CONTROL RELAYS AND/OR TRANSFER SWITCHES. REFER TO SPECIFICATIONS AND DETAIL SHEETS. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2" TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DLM.
- LOCATE DIGITAL LIGHTING CONTROLLER FOR CORRIDORS, GYM AND HIGH CEILING AREAS WITH NO ADJACENT ANCILLARY AREA ADJACENT TO NORMAL POWER PANEL SERVING THE LOAD. PROVIDE LABEL, GRID MARKERS WITH WORDING PER SPECIFICATIONS. LOCATE DIGITAL LIGHTING CONTROLLER FOR INSTRUCTIONAL SPACES AND OFFICES ABOVE ACCESSIBLE CEILING IN CORRIDOR DIRECTLY OUTSIDE OF ENTRY DOOR. PROVIDE LABEL IDENTIFYING ASSOCIATED SPACE, GRID MARKERS WITH WORDING PER SPECIFICATIONS.
- OCCUPANCY/VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED, CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER AND IECC-2015 C405 SPACES WITH MULTIPLE OCCUPANCY/VACANCY SENSOR OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE.
- CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED CIRCUITS FROM EXISTING SOURCE AND/OR NEW AS SHOWN FOR EMERGENCY FIXTURES, EMERGENCY LOAD RELAYS, TRANSFER SWITCHES AND EXIT SIGNS. COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MECHANICAL AND ELECTRICAL ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. PROVIDE SEPARATE RACEWAY SYSTEMS FOR LIGHTING CONTROL SYSTEM, CONTROLS WIRING (DIMMERS OR
- OTHERWISE) SHALL NOT BE INSTALLED IN THE SAME RACEWAY AS LINE VOLTAGE. REFER TO 26 05 33.

O'Brien
281-664-19 Pkwy North, Suite 900
0209-00
VE
LOCATION AS AN ECHNOLOGY CE AND EXTEND NER OR ITS
BOX EXTENSIONS THER WALL S. SEE CTED.
LL CEILING / WALL CES FOR AREAS D/OR
F WORK. AFTER
ULLBOX IS AREA,
EXTEND WIRING EILING AS TIVE. SEE CTED.
TRICAL OUTLETS USED AS W WORK.
NOTES
S, DIVISION 27 ATHWAYS AND S TO BE
IN 26. ES AT THE SAME OUNTED
VICE, EVICE AND NSTRUCTED BY
DX AND/OR N-ACCESSIBLE L RELOCATE
CONDUIT ABOVE
ILAS AFTECTED.
NOTES
/N AND CONNECT AFTER DEMOLITION, I MATCHING SIZE TO TED LOAD NOT TO
CEPTION WALL FOR
ACLE AND N THIS SPACE ID CONDUIT AND
ICE LOCATION(S). GURATION WITH EPTACI F AND
TH ARCHITECT. ADER. INSTALL 1"
CCESSIBLE N AND ONTRACTOR PRIOR

ING 20 #12 \)8V P/ WIRE.	₿	

PLUMBING GENERAL NOTES

- IT IS IMPRACTICAL DUE TO THE STREET SEWER, STRUCTURAL FEATURES AND ARRANGEMENT OF BUILDING TO OBTAIN A SLOPE OF 1/4" PER FOOT PIPING 4" THRU 6" SHALL HAVE A SLOPE OF 1/8" PER FOOT BELOW BUILDING TO 5'-0" OUTSIDE OF BUILDING.
 DO NOT SCALE THE DUMBING DRAWINGS, DEFER TO THE DIMENSIONED ADOUTTECTURAL
- 2. DO NOT SCALE THE PLUMBING DRAWINGS, REFER TO THE DIMENSIONED ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL DATA.
- REFER TO CIVIL DRAWINGS FOR UTILITY STUB CONTINUATIONS. THIS CONTRACTOR TO MAKE CONNECTIONS AS REQUIRED FROM STUB LOCATIONS TO SITE UTILITIES.
 INVERT ELEVATIONS LISTED ARE APPROXIMATE. PRIOR TO CONSTRUCTION, COORDINATE FINAL INVERT ELEVATIONS OF BUILDING SANITARY AND STORM OUTFALLS WITH SITE UTILITY CONTRACTOR. MAKE ADJUSTMENTS AS REQUIRED TO ENSURE PROPER CONNECTIONS TO
- SITE UTILITIES.
 5. REFER TO LATEST CIVIL DRAWINGS FOR BUILDING FINISHED FLOOR ELEVATIONS.
- 6. CONTRACT DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION, AND WHEN AVAILABLE, EXISTING RECORD DOCUMENTS. CONTRACTOR TO VERIFYAT SITE EXACT LOCATIONS, AND SIZES OF EXISTING PIPING. REPORT DISCREPANCIES TO ARCHITECT BEFORE DISTURBING EXISTING INSTALLATION, AND IMMEDIATELY AFTER SUCH DISCREPANCIES ARE DISCOVERED. CONTRACTOR TO VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND DRAWINGS PRIOR TO COMMENCEMENT OF WORK.
- 7. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID TO DETERMINE CONDITIONS AFFECTING THE WORK. ANY ITEMS WHICH ARE NOT COVERED IN THE BID DOCUMENTS OR ANY PROPOSED SUBSTITUTIONS SHALL BE LISTED SEPARATELY AND QUALIFIED IN THE CONTRACTORS BID. SUBMITTAL OF BID SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF WORK

	TECHNO	LOG	Y LEGEN	D - 27 10 00				ACCI	ESS CONTROL LI	EGE	ND - 28	10	00 & 28 10 (0.00	5
YMBOL		EL			NOTES		SYMBOL		DESCRIPTION		ELEVATION		BACK BOX/RACEWAY		NOTES
*#	WALL MOUN I ED NETWORK OUTLET D#: NUMBER OF DATA DROPS IN OUTLET AP: WIRELESS ACCESS POINT	+18" AF OTHER	-+, UNLESS RWISE NOTED	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C			ACP	ACCESS	S CONTROL SYSTEM, CONTROL PAN	NEL.	+60" AFF TO CI	ENTER	AS REQUIRED	COORI NOTE ;	DINATE POWER. #4.
V# ▽		FIELD (CR *#	DEFAULT *M - INDI	SYMBOL INDICATES WALL MOUNTE CATES MULLION MOUNTED READER	ED	·+∠ /\.୮.୮.		u-∪, J/4 U		
vv ▼	WALL MOUNTED NETWORK OUTLET	+44" AF +18" AF	F UNO	1-G MUD RING, 1"C 4"X4"X2 1/8" BACK BOX WITH			CR		NOUNTED ACCESS CONTROL		+42" AFF		N/A		
⊽ D#	FLOOR MOUNTED NETWORK OUTLET	N/A	-	1-G MUD RING, 1"C COORDINATE WITH	FINISHED HARDWAR	E	DS	2-WAY A		TION.	+42" AFF		*W: 1-G, 3/4" C *M· 3/4"C	COORD	INATE POWER. 4.
	CEILING MOUNTED NETWORK OUTLET AP: WIRELESS ACCESS POINT	ABOVE	ECEILING	ELECTRICAL CONTRACTOR CEILING BRACKET WITH BISCUIT BLOCK	PROVIDED BY DIV 27	\neg	*#	*M - IND	ICATES MULLION MOUNTED DEVICE	RCOM	+42" AFF. FIELD)	IVI. J/4 U	COORD	INATE POWER.
「*# IOTES: # C **	D#": NETWORK OUTLET					-	MS	DOOR S	TATION. AUDIO/VIDEO INTERCOM MASTER ST	TATION.	COORDINATE DESK MOUNTE	D		NOTE #	4 DINATE POWER.
. #-0 IN . #-C IN . UNO:	IDICATES CONDUIT SIZE. UNLESS NOTED OTHERWISE	20110					DR	DOOR R	ELEASE BUTTON		COORDINATE W	ITH GC	1-G, 3/4" C	IUUIE‡	r -1
. CONE . NO C	ONDUITS SHALL EXCEED FOR 40% MAXIMU	M FILL RAT	OT PLASTIC PRO 10. CONTRACTOR	TO PROVIDE ADDITIONAL CON	IDUITS REQUIRED.			PIR MOT	ION REQUEST TO EXIT DEVICE			TED	N/A	N/A	
	AUDIO/VIDE	EO LE	EGEND -	27 41 16.10				DPDT M SENSOF	AGNETIC DOOR CONTACT/DOOR PC	SITION	FLUSH MOUNT	ED IE	N/A	PROVIE CONTR	DED BY ACS ACTOR.
/MBOL	DESCRIPTION	ELE	VATION	BACK BOX/RACEWAY	NOTES		SS	NETWO	RK SIREN STROBE		CEILING MOUNT UNO	ED		NOTE #	4
WMP V	WALL MOUNTED PROJECTOR AUDIO/VISUAL OUTPUT OUTLET	REFEREN PLANS.	NCE FLOOR 4 B	11/16"X4 11/16"X2-1/8" BACK OX WITH DOUBLE GANG RING, WO(2) 1.25"C	NOTE #5	1	NOTES:	<u> </u>							
MP	CEILING MOUNTED PROJECTOR AUDIO/VISUAL OUTPUT OUTLET	CEILING	MOUNTED N	N/A	NOTE #5		1. #-G 2. #-C 3. UNC	NDICATES NDICATES : UNLESS	BACK BOX SIZE. CONDUIT SIZE. NOTED OTHERWISE						
V-1 √	WALL MOUNTED AUDIO/VIDEO INPUT DUTLET	+18" AFF	UNO 4	11/16"X4 11/16"X2-1/8" BACK 30X WITH DOUBLE GANG RING, TWO(2) 1.25"C		1	4. PRO	VIDE AND	INSTALL ONE (1) CATEGORY CABLE	TO CON	NECT DEVICE TO	NETW	ORK		
SD-1 ♥	WALL MOUNTED FLAT SCREEN DISPLAY AUDIO/VISUAL OUTPUT OUTLET	REFEREN PLAN	NCE FLOOR	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5				VIDEO SUR	/EIL	LANCE	LEC	GEND - 28 2	20 00)
SD-2 ▼	WALL MOUNTED FLAT SCREEN DISPLAY AUDIO/VISUAL OUTPUT OUTLET	REFEREN PLAN	NCE FLOOR 4	4 11/16"X4 11/16"X2-1/8" BACK 30X WITH DOUBLE GANG	NOTE #5		SYMBOL	14/41		DEF			BACK BOX/RACEWA		NOTES
	ASSOCIATED WITH AV-1 INPUT OUTLET	REFEREN	FNCE FLOOR 4	RING, TWO(2) 1.25"C I 11/16"X4 11/16"X2-1/8" BACK	NOTE #5	-		CEILING	JKNEK MUUNT 4-SENSOR CAMERA	PLAN		4	- A4 A2 1/0 BAUK BUX W -G MUD RING, 1"C	1117	NOTE #U
CP	AV CONTROL PANEL	r lan +48" AFF	TO TOP 4	RING, TWO(2) 1.25"C "X4"X2 1/8" BACK BOX WITH				2-SFNS	OR CAMERA	REFF	RENCE FLOOR	4	"X4"X2 1/8" BACK BOX W/	ITH	NUTE #5
v ⊃S		CEILING	1 C	-G MUD RING, 1"C CONTRACTOR PROVIDED		R				PLAN	IS	1	-G MUD RING, 1"C		πJ
	TRESENTATION SPEAKER	CEILING L	UNO N		NOTE #5			1-SENS		REFE PLAN	RENCE FLOOR	4 1	"X4"X2 1/8" BACK BOX W -G MUD RING, 1"C	ITH	
<u>⊪UTES:</u> . #-GIN 2. #-CIN	NDICATES BACK BOX SIZE. NDICATES CONDUIT SIZE.						VRS #MU	VIDEO F	URVEILLANCE MAIN UNIT	ABO	/E CEILING				NOTE #5
UNO: THE S PROJ	UNLESS NOTED OTHERWISE SYSTEM INTEGRATOR SHALL COORDINATE IECTS ELECTRICAL CONTRACTOR.	ALL BOX A	ND CONDUIT SIZE	REQUIREMENTS PRIOR TO RO	DUGH-IN BY THE		+	SYMBOI SURVEI	INDICATED THAT A VIDEO						
. PRO	/IDE AND INSTALL ONE (1) CATEGORY CABL	E TO CONI	NECT DEVICE TO N	NETWORK			NOTES: 1. #-G I 2. #-C I	NDICATES NDICATES	BACK BOX SIZE. CONDUIT SIZE.						
	LOCAL SOUND S	SYSTI	EM LEGE	END - 27 41 16	.20		3. UNO 4. THE PRO	UNLESS I SYSTEM IN JECTS FI F	NOTED OTHERWISE ITEGRATOR SHALL COORDINATE AL CTRICAL CONTRACTOR	L BOX A	ND CONDUIT SIZE	E REQU	JIREMENTS PRIOR TO RO)UGH-IN	BY THE
(MBOL	DESCRIPTION	ELE\	VATION	BACK BOX/RACEWAY	NOTES		5. PRO	/IDE AND	NSTALL ONE (1) CATEGORY CABLE	TO CONI	NECT DEVICE TO	NETWO	ORK		
(S _*	LOCAL SOUND SYSTEM SPEAKER P: POLE MOUNTED SPEAKER	CEILING M	IOUNT UNO E	CONTRACTOR PROVIDED BACK BOX OR 4"X4"X2 1/8" J BOX WITH COVER, 1"C					INTRUSIC	N L	EGEND	- 28	3 31 00		
LSC	LOCAL SOUND SYSTEM CONTROL PLATE	+48" AFF	TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C			SYMBOL		DESCRIPTION	E	LEVATION	E	BACK BOX/RACEWAY		NOTES
MI	MICROPHONE INPUT	+18" AFF L	JNO 4	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C			IDP	INTRUSIC PANEL	ON DETECTION SYSTEM CONTROL	+60" AF	F TWO CON BACK		2) - 1"C TO RACTOR PROVIDED BOX	COO WITH	RDINATE POWER I EC. NOTE #5
MA	COMBINATION OUTLET CONSISTING OF ONE (1) MICROPHONE INPUT AND ONE	+18" AFF L	JNO 4	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING 1"C			KP		ON DETECTION SYSTEM KEYPAD.	+48" AF	AFF TO TOP 4"X4" 1-G N		(4"X2 1/8" BACK BOX WITH G MUD RING, 1"C		
AI	(1) AUXILIARY INPUT 3.5MM STEREO AUDIO AUXILIARY INPUT	+18" AFF (UNO 4	4"X4"X2 1/8" BACK BOX WITH						REFER	FERENCE FLOOR N/A		A		
H	HANGING MICROPHONE	CEILING N	MOUNT	1-G MUD RING, 1"C N/A			-GB-	LR: LONG	KANGE MOUNTED GLASS BREAK	PLAN CEILIN	G	N/A		+	
		+48" AFF		4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C			(DC)	DE TECTO DPDT MAC	JK GNETIC DOOR CONTACT/DOOR SENSOR	FLUSH	MOUNTED IN	N/A		DEV	ICE PROVIDED BY
	SYSTEM HEAD END RACK WIRELESS ANTENNA	WALL MO		1/2 4"X4"X2 1/8" BACK BOX WITH		-	SDC	SURFACE	MOUNT MAGNETIC DOOR	SURFA	CE MOUNTED DR FRAME	N/A		ACS	CUNTRACTOR.
ALA	ASSISTED LISTENING ANTENNA	WALL MO		1-G MUD RING, 1"C 4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING 1"C		\neg	ODC	OVERHEA CONTACT	D DOOR MOUNT MAGNETIC DOOR	SURFA	CE MOUNTED DR FRAME	N/A			
SUB	SUBWOOFER	CEILING N	MOUNT UNO				DB	DURES	S PANIC BUTTON	UNDER	DESK UNO	N/A			
<u>NUTES:</u> . #-GIN 2. #-CIN	NDICATES BACK BOX SIZE.						<u>NOTES:</u> 1. #-G II 2. #-C II	NDICATES	BACK BOX SIZE. CONDUIT SIZE.						
UNO: THE S	UNLESS NOTED OTHERWISE SYSTEM INTEGRATOR SHALL COORDINATE IECTS ELECTRICAL CONTRACTOR.	ALL BOX A	ND CONDUIT SIZE	REQUIREMENTS PRIOR TO RO	DUGH-IN BY THE		3. UNO 4. REFE 5. PRO	UNLESS N RENCE DI <u>/ID</u> E AND I	NOTED OTHERWISE VISION 28 SPECIFICATION FOR ADDI <u>NSTALL O</u> NE (1) CATEGORY CABI F 1	TIONAL TO CON	NFORMATION AN	ID REQ <u>N</u> ETWO	UIREMENTS. DRK		
. PRO\	/IDE AND INSTALL ONE (1) CATEGORY CABL	E TO CONI	NECT DEVICE TO N	NETWORK						<u> </u>		10	00		
	INTE	RCO	M LEGEN	ND - 27 50 00	1		SYM	BOL	FIRE DESCRIF		rtivi - 28	40	UU		
YMBOL	DESCRIPTION	EAD END	ELEVATION FLOOR MOUNTED	BACK BOX/RACEWAY	NOTES COORDINATE		FAC	;P	FIRE ALARM CONTROL	~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\sim	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~ ~	~~~~~~
S	UNIT. CEILING MOUNT INTERCOM SPEAKER, LAY CEILING	Y-IN	CEILING	CONTRACTOR PROVIDED	POWER WITH		RP	s S	EXISTING FIRE ALARM SYSTEM REN CONTRACTOR TO FIELD VERIFY.	NOTE PC	WER SUPPLIES.	LOCAT	IONS DETERMINED FROM	M AS BU	ILD DRAWINGS.
<u>(S2</u>)	CEILING MOUNT INTERCOM SPEAKER, HAI CEILING.	RD	CEILING	CONTRACTOR PROVIDED			<u>NOTES.</u> 1. FIRE	ALARMS	STEM IS PERFORMANCE RASED PER			RACIO	DR TO REFERENCE SPEC		ONS FOR
§ 3	WALL MOUNT INTERIOR INTERCOM SPEAK	(ER	REFERENCE FLOO PLANS	DR CONTRACTOR PROVIDED			ADDI								
(S4) (S5)	WALL MOUNT EXTERIOR INTERCOM SPEA PENDANT MOUNT INTERCOM SPEAKER	KER	HIU AFF UNO	CONTRACTOR PROVIDED			2. ALIC SYST PLAN		DUGH THE NATIONAL INSTITUTE FOR LCULATIONS FOR A MANUAL AND AU		C FIRE DETECTION	NEERIN ON AND	NG TECHNOLOGIES (NICE ALARM SYSTEM TO COL	ET), SHA MPLY W	LL PROVIDE ITH THE BUILDING
<u>(\$6)</u>	SURFACE MOUNT INTERCOM SPEAKER, M TO STRUCTURE	IOUNT	CEILING	CONTRACTOR PROVIDED			DETE	CTION SY	, BOILDING OCCUPAINCY, CURRENT STEM SPECIFICATIONS.	NFFA /2	., LOUAL AND STA	↓ ⊂ UU	UL NEQUIKEIVIEN I S, ANI	יחב⊦	II VE ALAKIVI ANU
§7)	CEILING MOUNTED EXTERIOR INTERCOM S	SPEAKER.	CEILING REFERENCE FLOC	CONTRACTOR PROVIDED											
# IP	S, S2, S3, S4 INDICATING THE SPECIFIC TY SPEAKER.	PE OF	PLANS		C# E #0										
VC	WALL MOUNTED VOLUME CONTROL		+48" AFF	4"X4"X2 1/8" BACK BOX WI 1-G MUD RING, 1"C	тн										
CB	SINGLE FACE CLOCK		REFERENCE FLOO	1-G MUD RING, 1"C DR 4"X4"X2 1/8" BACK BOX WI	 ГН	_									
(C)	DOUBLE FACE CLOCK		PLANS REFERENCE FLOC	1-G MUD RING, 1"C DR 4"X4"X2 1/8" BACK BOX WI	тн										
(C2) RPS	REMOTE PROGRAM SOURCE		PLANS DESK TOP	1-G MUD RING, 1"C COORDINATE WITH EC	NOTE #5										
ACS	ADMINISTRATIVE CALL STATION.		DESK TOP +48" AFF	N/A 4"X4"X2 1/8" BACK BOX WI	NOTE #5										
	LARGE MESSAGE BOARD, POE+ POWERED	1	REFERENCE FLOC	1-G MUD RING, 1"C R 4"X4"X2 1/8" BACK BOX WI 1-G MUD RING 1"C	TH NOTE #5	-									
▼ <u>OTES:</u> #-G IN	DICATES BACK BOX SIZE.	I 1			I										
#-C IN UNO: THE S	DICATES CONDUIT SIZE. UNLESS NOTED OTHERWISE YSTEM INTEGRATOR SHALL COORDINATE /	ALL BOX AN	ND CONDUIT SIZE	REQUIREMENTS PRIOR TO RO	UGH-IN BY THE										
PROJI PROV	ECTS ELECTRICAL CONTRACTOR. IDE AND INSTALL ONE (1) CATEGORY CABLI	E TO CONN	NECT DEVICE TO N	IETWORK											

S	UBSCRIPTS AND ABBREVIATIONS
TEXT	DESCRIPTION
'WP'	DEVICE SHALL BE WEATHER PROOF AND RATED FOR EXTERIOR CONDITIONS
•	FIELD COORDINATE ELEVATION.
AFF	ABOVE FINISHED FLOOR
'UC'	DEVICE IS TO BE MOUNTED ON THE UNDERSIDE OF THE ELEVATED CANOPY.
'WM'	DEVICE IS TO BE WALL MOUNTED.
'WG'	WIRE GUARD TO BE PROVIDED AND INSTALLED TO PROTECT ASSOCIATED DEVICE.
SUBS	SCRIPTS LEGEND - EXISTING DEVICES
TEXT	DESCRIPTION
'E'	EXISTING TO REMAIN.
'D'	DEVICE IS EXISTING AND IS TO BE REMOVED. CONTRACTOR TO REMOVE THE DEVICE AND RETURN TO OWNER.
'R'	REMOVE EXISTING DEVICE AND RELOCATE TO A LOCATION INDICATED ON THE DRAWINGS.

NOTES TO CONTRACTOR

1. EVERY SYMBOL SHOWN ON LEGEND MAY NOT APPEAR ON DRAWINGS. 2. SYSTEM INSTALLERS SHALL COORDINATE LOCATIONS AND CONNECTIONS WITH THE PROJECT'S ELECTRICAL CONTRACTOR.

3. CONTRACTOR TO PROVIDE PROPERLY GROUNDED LIGHTING PROTECTION ON ALL CABLING ENTERING AND EXITING THE BUILDING.

TECH DEMO PLAN GENERAL NOTES

CONTRACTOR SHALL PROVIDE NEW CEILING TILES IN INSTANCES WHERE CEILING DEVICES ARE REMOVED, REPLACED OR ADDED. CONTRACTOR SHALL COORDINATE WITH ARCHITECT ON CORRECT MANUFACTURER AND MODEL PRIOR TO REMOVAL OF EXISTING TILE.

- CONTRACTOR SHALL HAVE EACH LOW VOLTAGE SYSTEM TESTED PRIOR TO THE В COMMENCEMENT OF CONSTRUCTION. SYSTEMS SHALL INCLUDE BUT NOT BE LIMITED TO:
 - 1) FIRE ALARM INTERCOM

С

D

- 3) STRUCTURED CABLING 4) INTRUSION DETECTION
-) ACCESS CONTROL 6) AUDIO VIDEO
- 7) VIDEO SURVEILLANCE TESTING SHALL INCLUDE THE FUNCTIONALITY OF ALL FIELD DEVICES AND EQUIPMENT. ANY FAILURES OR ITEMS FOUND NOT TO BE FUNCTIONING TO SPECIFICATION. SHALL BE REPORTED PRIOR TO CONSTRUCTION. ANY ITEMS FOUND TO BE IMPROPERLY OR NON-FUNCTIONING UPON THE COMPLETION OF
- THE PROJECT, SHALL BE REPLACED AND/OR REPAIRED, BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE PROJECT OR THE OWNER. CONTRACTOR SHALL REMOVE ANY DEVICES WHERE CONSTRUCTION OCCURS TO
- PREVENT POSSIBLE DAMAGE TO THE DEVICE. REMOVAL OF ANY DEVICES WHICH SUPPORT USER CONNECTION OR OTHER SYSTEMS, SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVAL AND/OR TAKING OFF LINE. REMOVAL SHALL CONSIST OF BUT NOT BE LIMITED TO THE FOLLOWING DEVICES AND ASSOCIATED SUPPORT INFRASTRUCTURE: 1) FIRE ALARM DEVICES
- 2) INTERCOM DEVICES 3) WIRELESS ACCESS POINTS 4) TELEPHONES
- 5) VIDEO SURVEILLANCE CAMERAS (i) INTRUSION DETECTION DEVICES
- 7) ACCESS CONTROL DEVICES 8) VIDEO PROJECTION DEVICES
- 9) VIDEO DISPLAY DEVICES ANY DEVICES, NOT BEING REINSTALLED, SHALL BE RETURNED TO THE OWNER.
- CONTRACTOR SHALL DOCUMENT THE LOCATION AND ANY ID TAG, MAC ADDRESS, IP ADDRESS, OR BAR CODE OF ANY EXISTING DEVICE THAT IS TO BE REMOVED FROM ITS CURRENT LOCATION. DEVICES THAT ARE TO REMAIN, SHALL BE REINSTALLED IN THE EXACT LOCATION THAT THEY RESIDE IN PRIOR TO CONSTRUCTION, UNLESS NOTED OTHERWISE.
- Е ANY INDIVIDUAL THAT WILL BE REMOVING. RELOCATING, REINSTALLING, AND/OR TAMPERING WITH ANY EXISTING DEVICES: SHALL BE CERTIFIED BY THE MANUFACTURER OF THE SPECIFIC SYSTEM AND/OR LICENSED AS REQUIRED BY THE STATE TO PERFORM WORK ON THE SYSTEM. THE INDIVIDUAL SHALL BE A FULL-TIME EMPLOYEE OF THE FIRM CONTRACTED TO CONDUCT SUCH WORK ON THE PROJECT AND THAT FIRM SHALL ALSO HOLD ANY CERTIFICATIONS AND/OR LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SYSTEM.
- ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, REINSTALLING, OR F TAMPERING WITH IN ANY DEVICES; SHALL BE LICENSED BY THE STATE, AS APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE SYSTEM.
- G ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEMOLISHED, SHALL BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POINT OF ORIGIN. NO CABLE SHALL BE ABANDONED IN PLACE.
- Н ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CONTRACTOR TO REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REINSTALL THE DEVICE IN THE SAME LOCATION, UNLESS NOTED OTHERWISE.
- REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NOTES AND LEGENDS I SHEET.
- TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAGGED AND J SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WARRANTY. TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHER SYSTEM COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOM ANMEAND
- CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEPARTMENT PRIOR K TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED BY THE OWNER'S VENDER IN ORDER TO PREVENT VOID OF WARRANTY.

NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REMOVED FROM.

- CONTRACTOR SHALL FIELD VERIFY ALL SECONDARY CLOCK LOCATIONS. REMOVE L ALL SECONDARY CLOCKS. PROVIDE NEW CLOCKS IN RECEPTION, CAFETERIA, LIBRARY, GYMS AND CLINIC IN THE SAME LOCATIONS. RETURN ALL OTHER SECONDARY CLOCKS TO OWNER. HEAD END MASTER CLOCK IS TO BE REPLACED. CONTRACTOR TO REFERENCE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PATCH AND PAINT INSTRUCTIONS.
- M ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AND REMOVE EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MATCH EXISTING.
- DEMOLISHED WORKSTATION OUTLETS THAT ONLY CONTAIN VOICE SHALL HAVE Ν CABLING DEMOLISHED AND RECIEVE A NEW CONTRACTOR PROVIDED BLANK FACEPLATE UNLESS NOTED OTHERWISE. THIS SHALL EXCLUDE VOICE OUTLETS BEING USED FOR LIFE SAFTEY PURPOSES.

RESPONSIBILITY MA	TRIX			
SCOPE ITEM	RES	PONSIE	BILITY	NOTES
COMMUNICATIONS - DIVISION 27	OFOI	CFCI	OFCI	
CATEGORY 6/6A STRUCTURED CABLING SYSTEM (SCS)				
AUDIO DISTRIBUTION SYSTEM - SPECIAL SPACE		\checkmark		SEE NOTE 4.
AUDIO DISTRIBUTION SYSTEM - INSTRUCTIONAL SPACE	√			
FLAT PANEL DISPLAYS	V			
FLAT PANEL DISPLAY MOUNTS	J			
NTERACTIVE DISPLAYS	V			
INTERACTIVE DISPLAY MOUNTS	\			
BUILDING INTERCOM/PA, BELL, AND CLOCK SYSTEM		\checkmark		
→NETWORK SWITCHES	\checkmark			
NETWORK EQUIPMENT			-	
\rightarrow MDF/IDF NETWORK EQUIPMENT	\checkmark			
\rightarrow VOIP TELEPHONES	\checkmark			
ightarrow WIRELESS ACCESS POINTS	\checkmark			
\rightarrow UNINTERRUPTIBLE POWER SUPPLIES (UPS)	\checkmark			
RACEWAY: CONDUIT, BACK BOXES, ETC.		\checkmark		SEE NOTE 1.
LOW VOLTAGE: RACEWAY, SLEEVES		\checkmark		SEE NOTE 1.
STRUCTURED CABLING: RACEWAY, SLEEVES	\checkmark			SEE NOTE 5.
ELECTRICAL POWER		\checkmark		SEE NOTE 1.
LIFE SAFETY AND SECURITY - DIVISION 28	OFOI	CFCI	OFCI	
ACCESS CONTROL SYSTEM(ACS)		\checkmark		
INTRUSION DETECTION SYSTEM		\checkmark		
DOOR ACCESS VIDEO INTERCOM SYSTEM		\checkmark		
VIDEO SURVEILLANCE SYSTEM (VSS)		-		
→ VSS SERVERS		\checkmark		
\rightarrow VSS CAMERAS		\checkmark		
\rightarrow VSS PROGRAMMING		\checkmark		
\rightarrow VSS CABLING	\checkmark			SEE NOTE 2.
FIRE ALARM SMOKE DETECTION WITH VOICE EVACUATION		\checkmark		
RACEWAY: CONDUIT, BACK BOXES, SLEEVES, ETC.		\checkmark		SEE NOTE 1.
ELECTRICAL POWER		\checkmark		SEE NOTE 1.
OFOI - OWNER FURNISHED AND OWNER INSTALLED CFCI - CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED OFCI - OWNER FURNISHED AND CONTRACTOR INSTALLED				
 BY DIVISION 26. BY DIVISION 27. BY DIVISION 11. IF SYSTEM REQUIRES NETWORK SWITCH IT SHALL BE OFOI. C OWNER. CORES AND SLEEVES FOR STRUCTURED CABLING WILL BE O' INSTALLED. NOT TO BE USED BY ANY OTHER TRADE. 	CONTRAC	TOR TO) COOR ED, OW	DINATE WITH NER

salasobrien.com Houston

Houston, TX 77064

TECHNOLOGY COMPOSITE FLOOR PLAN - LEVEL 1 Scale: 1" = 20'-0"

В

T1.03

_____ of _____

E Η

G

FIRE ALARM FIRE ALARM SYSTEM IS A PERFORMANCE BASED PER S А CONTRACTOR TO REFERENCE SPECIFICATIONS FOR AD A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM В LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET), SHALL PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, CURRENT NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS. REFERENCE TECHNOLOGY COMPOSITE PLANS FOR EXISTING AHU LOCATIONS. С REFERENCE MECHANICAL PLANS FOR ANY NEW AHU LOCATIONS.

SPECIFICATIONS 28 46 00.
DDITIONAL INFORMATION

TEC	HNOLOGY PLAN GENERAL NOTES
A	COORDINATE ALL FINAL MOUNTING HEIGHTS, FOR WALL MOUNTED DEVICES, PRIOR TO ROUGH-IN. COORDINATE WITH ARCHITECT, OWNER AND ENGINEER.
В	COORDINATE ALL CEILING DEVICE LOCATIONS WITH ARCHITECTURAL DRAWINGS AND INTERIOR DESIGN CONSULTANT(IF APPLICABLE) PRIOR TO ROUGH-IN.
С	REFERENCE TECHNOLOGY SITE PLAN, COMPOSITE, NOTES & LEGENDS AND DETAILS FOR ADDITIONAL INFORMATION AND DEVICE/OUTLET LOCATIONS.
D	CONTRACTOR TO COORDINATE INTERCOM SPEAKER MOUNTING TYPES WITH ARCHITECTURAL CEILING PLANS PRIOR TO FINAL SPEAKER SELECTION. COORDINATE WITH ENGINEER ON ANY DISCREPANCIES.
Е	CONTRACTOR TO COORDINATE ALL DROP LOCATIONS WITH FURNITURE. COORDINATE WITH ARCHITECT AND OWNER FOR MORE INFORMATION.

- ALL EXISTING LOCKDOWN BUTTONS THAT ARE BEING REUSED SHALL HAVE F EXISTING WIRING DEMOLISHED AND REPLACED BY CONTRACTOR. NEW WIRING SHALL BE HOME RUN.
- NEW DATA CABLING IN EXISTING CLASSROOMS SHALL REUSE EXISTING DATA G CABLING RACEWAY AND BACKBOXES. CONTRACTOR TO PROVIDE AND INSTALL NEW FACEPLATES.
- DATA CABLING TO MECHANICAL ROOMS SHALL BE REPLACED ONE TO ONE. Н CONTRACTOR TO REUSE EXISTING RACEWAY AND BACKBOXES. PROVIDE AND INSTALL NEW FACEPLATES.

MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - AREA C Scale: 1/8" = 1'-0"

GENERAL NOTES:

1.	OWNER SHALL HAVE FIRST RIGHT OF
	EQUIPMENT BEING REMOVED ROM TH
	THIS INCLUDES BUT IS NOT LIMITED T
	HANDLING UNITS, FANS, CONDENSING
	CONTROL PANELS, TEMPERATURE SE
	CONTROL VALVES.
2.	THESE CONSTRUCTION DRAWINGS A
	DIAGRAMMATIC, AND DO NOT NECES
	ACTUAL DIMENSIONS. IT IS THE RESP
	THE CONTRACTOR TO FIELD-VERIFY

RENOVATIONS

ELECTRONIC EQUIPMENT.

POINT OF CONNECTION FROM NEW TO EXISTING

CONTRACTOR SHALL PROVIDE DEHUMIFICATION DURING THE

CONSTRUCTION SCHEDULE. THE SCOPE IS TO MAINTAIN ACCEPTABLE

HUMIDITY LEVELS WITHIN THE BUILDING: THE REMOVAL OF EXCESS

HUMIDITY FROM THE AIR THROUGHTOUT THE BUILDING. PROVIDE

PREVENTING THE LONG-TERM EFFECTS OF MOISTURE LEVEL THAT

MOISTURE CONTROL RENTAL EQUIPMENT AND SOLUTION FOR

CAN DAMAGE INTERIOR BUILDING MATERIALS, BOOKS AND

ITEM TO REMAIN

[]] ITEM TO BE REMOVED

- 2 REMOVE EXISTING RETURN AIR DEVICE.
- $\langle 4 \rangle$ REMOVE EXISTING EXHAUST FAN ASSOCIATED
- $\langle 5 \rangle$ SEE 1/M0.06 FOR CONTINUATION.
- (6) REMOVE EXISTING RETURN AIR TRANSFER.

M0.03

MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1 - AREA D

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

GENERAL NOTES:

CONTROL VALVES. 2. THESE CONSTRUCTION DRAWINGS ARE

RENOVATIONS

ITEM TO REMAIN

[_] ITEM TO BE REMOVED

POINT OF CONNECTION FROM NEW TO EXISTING

CONTRACTOR SHALL PROVIDE DEHUMIFICATION DURING THE

CONSTRUCTION SCHEDULE. THE SCOPE IS TO MAINTAIN ACCEPTABLE

HUMIDITY LEVELS WITHIN THE BUILDING: THE REMOVAL OF EXCESS

PREVENTING THE LONG-TERM EFFECTS OF MOISTURE LEVEL THAT

HUMIDITY FROM THE AIR THROUGHTOUT THE BUILDING. PROVIDE

MOISTURE CONTROL RENTAL EQUIPMENT AND SOLUTION FOR

- AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS. 3. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING DRAWINGS AND PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD
- **DEMOLITION KEYED NOTES**
- $\langle 1 \rangle$ REMOVE EXISTING SUPPLY AIR GRILLE AND EXISTING DUCTWORK UP TO INDICATED POINT.
- $\langle 2 \rangle$ REMOVE EXISTING RETURN AIR DEVICE. $\langle 3 \rangle$ REMOVE EXISTING EXHAUST FAN ASSOCIATED
- DUCTWORK, CONTROLS AND ELECTRICAL CONNECTIONS. $\langle 4 \rangle$ SEE 1/M0.06 FOR CONTINUATION.
- $\langle 5 \rangle$ REMOVE EXISTING DUCTWORK BACK TO POINT

, INDICATED.

VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.

GENERAL NOTES:

1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.

RENOVATIONS

POINT OF CONNECTION FROM NEW TO EXISTING

CONTRACTOR SHALL PROVIDE DEHUMIFICATION DURING THE

CONSTRUCTION SCHEDULE. THE SCOPE IS TO MAINTAIN ACCEPTABLE

HUMIDITY LEVELS WITHIN THE BUILDING: THE REMOVAL OF EXCESS

HUMIDITY FROM THE AIR THROUGHTOUT THE BUILDING. PROVIDE MOISTURE CONTROL RENTAL EQUIPMENT AND SOLUTION FOR

ITEM TO REMAIN

[]] ITEM TO BE REMOVED

FROM EXISTING DRAWINGS AND PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL LOCATIONS AND SIZES OF MECHANICAL SYSTEMS PRIOR TO THE START OF WORK.

MECHANICAL KEYED NOTES:

- VERIFY SERVICE CLEARANCE WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ALL TRADES NOT TO OBSTRUCT.
- $\langle 2 \rangle$ PROVIDE WIND-DRIVEN RAIN RESISTANT STATIONARY LOUVER RUSKIN MODEL EME520MD OR APPROVED EQUAL AND MINIMUM FREE AREA OF AS NOTED. PROVIDE WITH BIRD SCREEN AND PAINT TO MATCH WALL OR AS
- SPECIFIED BY ARCHITECT. $\langle \overline{3} \rangle$ SHEET METAL PLENUM ON REAR OF LOUVER WITH MOTORIZED DAMPER.
- $\langle 4 \rangle$ PROVIDE WITH LINE VOLTAGE HUMIDITY SENSOR.
- 5 PROVIDE WITH LINE VOLTAGE MOTORIZED DAMPER FOR EXHAUST AND MAKEUP AIR LOUVER.

281-664-1900

2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE

RENOVATIONS

POINT OF CONNECTION FROM NEW TO EXISTING

CONTRACTOR SHALL PROVIDE DEHUMIFICATION DURING THE

ITEM TO REMAIN

[]] ITEM TO BE REMOVED

SALAS O'BRIEN

SUITE 900

HOUSTON, TX 77064

tel: 281.664.1900

FOOD SERVICE EQUIPMENT

25317 INTERSTATE 45 THE WOODLANDS, TX 77380 tel: 281.350.2323

LANDSCAPE ARCHITECT

LANDESIGN GROUP

17041 EL CAMINO REAL SUITE 204 HOUSTON, TX 77058

tel: 281.486.4040

FDP

10930 W. SAM HOUSTON PKWY.

MECHANICAL FLOOR PLAN - LEVEL 1 - AREA D Scale: 1/8" = 1'-0"

									F	AN SC	HEDU	LE						
			EXT. S						CUF	RRENT CHAR							MODEL	
TAG EF-1		CFM 350		N.C.) 25	MAX RPI 1800	╨┯┿	HORSE PC 0.25	OWER	V 120			/ITCHED -STAT	WITH	FAN TYPE ROOF	DRIVE TYPE DIRECT	MANUFACTUREF COOK		REMARKS (1,2,3,7)
EF-SB-1	STORAGE	1300	0.8	50 50	1800	m	0.5	m	120	1 6	60 F	I-STAT	<u> </u>	INLINE	DIRECT	COOK	SQND	(1,2,3,4,5,6)
SF-4D	MECH MEZZ D201	900	0.5	50	1800		0.33		120	1 6	60	-	AHU-3D	INLINE	DIRECT	СООК	SQND	(1,2,3,4)
GENERAL N 1. EXTERN	IOTES: AL STATIC PRESS				TWORK, All		CES,		REMAR	<u>RKS</u> : DVIDE WITH D		T.			5. PRO			ÉD
UNIT CAS LOSS. IN	SING MUST BE AD	DED TO EXTERNA POWER AS REQUI	AL STATIC IRED TO MI	PRESSUR	RE TO OBTA	IN TOT	AL PRESS RE LOSS.	SURE	2. PRC 3. PRC 4. SUS	OVIDE WITH N OVIDE WITH F SPEND UNIT V	AN SPEED	DAMPER. (CONTROLLI THREADED	EMCS) ER. HANGER RODS A	ATTACHED TO T	LOU' NO <u>6-PRO</u>	VER. VER. VIDE WITH LINE V C	LAND MAKEUP AI	K
COORDI 2. MINIMUN AND 30 I	NATE WITH ELECT 1 RECOMMENDED NCHES ON SERVIO	RICIAN. CLEARANCE ARC CE SIDES, MAINTA	OUND UNIT	TIS 12 INC	HES ON NO)N-SER		ES PEN	UNIS REF	STRUT RUNN ER TO MANU	ERS SECUF FACTURER	RED TO STR FOR MORE	RUCTURE. PROVIE E DETAILS.	DE SPRING ISOL	ATION. 57. PRO			CREEN.
ACCESS MAINTAI	AND CONTROL DO N MINIMUM ELECT	OORS ON UNIT FO	OR SERVIC	E, MAINTE UIRED BY	ENANCE, AN Y NEC.	ND INSI	PECTION.											
										AIR	HAN	ULIN	GUNII					PIPE SIZ
MARK	SUPPLY OUTS			ECUR	RENT CHAR	RAC.		AIR 1	TEMPER	C ATURE (°F)	OOLING		WATER		IG AIR MIN.		/ATER	
AHU-3D	AIR CFM AIR 0	CFM (IN. W.C) 0 0.95	= POWE	R V 480	PH 3	F [DRY BULB	3 WET	BULB	DRY BULB	WET BULB 54.0	TEMP (°F	GPM DROF	SURE TEMPER P (FT.) (°F 5.0 64.) CAPACI 0 85.374	TY TEMP. (°F) 1 180.0	GPM DROP (FT 8.6 10.0	.E WATER .) 1 1/2"
AHU-3D(A) GENERAL NO	900 90 TES:	0					98.0	79	9.0	54.5 REMARKS:	54.0	42	10.0 15	5.0 27.	0 26,244 8. F	180.0 PROVIDE HOT WAT	2.7 10.0 ER COIL IN PRE-H	1 1/4"
1. EXTERNAL DUCT MOL	STATIC PRESSUF	RE INCLUDES LOS R COILS WHERE A	SES DUE	TO DUCTV E. DIRTY	VORK, AIR I FILTER AN	DEVICE D UNIT	ES, DAMPE CASING N	ERS, AN MUST BI	ID E OWER	1. VELOCIT 2. VELOCIT	Y NOT TO E Y NOT TO E HORIZONT	XCEED 500 XCEED 450	FPM ON COOLING	G COIL. G COIL	9. F 10.F 11 S	PROVIDE HOT WAT	ER COIL IN REHEA ANGLED FILTER	AT POSITION. ≷ SECTION. E MOUNTED ON
AS REQUIE 2. MAINTAIN	RED TO MEET YOU MINIMUM CLEARA	IR TOTAL PRESSURE FO	JRE LOSS. JLL AS REC	COORDI	NATE WITH	ELECT	RICIAN. JFACTURI	ER. MA	INTAIN	4. PROVIDE FREQUE	SINGLE ZC	NE VARIAB	LE VOLUME UNIT	WITH VARIABLE	12.II	NDICATED SHALL E	E STACKED OAU E). UNIT INCLUDE	FURNISHED WI
MINIMUM (MAINTENA	CLEARANCE AS RE NCE, AND INSPEC	Equired to opei Tion. Maintain	N ACCESS MINIMUM E	AND CON	ITROL DOO AL CLEARA	RS ON NCE AS	UNIT FOF S REQUIR	R SERVI ED BY N	CE, NEC.	5. PROVIDE 6. PROVIDE 7. PROVIDE	TOP DISCH TWO-WAY TWO-WAY	IARGE. COOLING (<u>HEATING (</u>	ONTROL VALVES	S.	F	PREHEAT COIL, ACC PLENUM. UNIT DOE	CESS SPACE, CO S NOT HAVE FAN	OLING COIL AND SECTION.
		DUCT	LESS			- I	NDOC								SS MINI-S	SPLIT - OU		
MARK	SUPPLY PO	VER CURRE	NT NC. E			G M	IIN. TOTAL CAPACITY		MIN. SEN	IS. MINIM	IUM R/	REMARKS	MARK	CAPACITY (BTUH)	AIR EI FEMP (°F) SE	ER V PH	F MAR	T REMARKS
DMS-1	AIR CFM WA 375 3	TTS V P 5.0 208	F D	75.0	62.5	B	(BTUH) 18,000		(BTUH) 14,400	SEE	R	(1,2,3,4,5)	DMSCU-1 DMSCU-2	18,000 34,200	95 13 95 13	3.0 208 3.0 208	60 DMS 60 DMS	-1(1,2,3)5-2(1,2,3)
DMS-2 DMS-3	750 4 375 3	5.02085.0208	60 60	75.0 75.0	62.5 62.5		34,200 18,000		27,360 14,400	15 15		(1,2,3,4,5) (1,2,3,4,5)	DMSCU-3 GENERAL I	18,000 NOTES:	95 13	3.0 208	60 DMS	3 (1,2,3)
<u>GENERAL NOT</u> 1. MAINTAIN M	<u>'ES</u> : IINIMUM CLEARAN	ICE RECOMMENT	DED BY	<u>REMARK</u> 1. UNIT	<u>(S</u> : TO BE INST	ALLED	PER MAN	NUFACT	URER'S	INSTALLATIO	N INSTRUC	TIONS.	1. MINIMUI SERVICI	M RECOMMEND E SIDES AND 30 NSER AIR ELOW	ED CLEARANCE / INCHES ON SER	AROUND ROOFTOF /ICE SIDES. MAINT DED BY LINIT MANU	UNIT IS 12 INCHE AIN MINIMUM CLE	ES ON NON- EARANCE FOR
UNIT MANU AS REQUIRI	FACTURER. MAIN ED TO OPEN ACCE	TAIN MINIMUM CL	EARANCE DL DOORS	2. CONT 3. REFR	ROLLED BY	Y PROC	GRAMMAB O BE SIZE	BLE WIR	ED THEF	RMOSTAT.		NTS.	CLEARA	NCE AS REQUIR E, MAINTENANCI	ED TO OPEN AC E, AND INSPECTI	CESS AND CONTRO ON. MAINTAIN MIN	DL DOORS ON UN IMUM ELECTRICA	AL CLEARANCE
INSPECTION CLEARANCI	N. MAINTAIN MININ AS REQUIRED B	I ENANCE, AND IUM ELECTRICAL Y NEC.		4. PROV HP, 1 ² 5. INDO	15V/1PH/60 OR UNIT IS	HZ. MO POWEI	UNT PUM	IP UNDE M OUTD	R HIGH	WALL UNIT. IT.	/MA-200LS-	C-PRU, 1/30	AS REQ <u>REMARKS</u> : 1. PROVID	UIRED BY NEC. E WITH LOW AM	BIENT CONTROL	DOWN TO 20°F.		
													2. PROVID 3. REFRIG	E WITH DISCONI ERANT LINES TO	NECT SWITCH. DBE SIZED PER N	/ANUFACTURER'S	REQUIREMENTS.	
				BOII	FR - F													
			T PRESSU		FLUE		ELE	ECTRICA				MODEL						
	E GAS INPO (BTUH)	(BTUH)	(FT.H2	20) [101	M SIZE	HOR		R V		F MANUI			(1 2 3)					
B-1 CONDI	ENSING 3,000,00	0 2,862,000	15.0	191	.0 10 .0 10		0.50	480	1	60 R/	AYPAK	XVers	(1,2,3)					
. PROVIDE 8 C	UNCE GAS PRES	SURE TO BOILER. CE AROUND A BO	ILER OF 24	: 	1. PROVIDE CONSTA	E WITH	CIRCULA	TING PU	JMP, SIZ	ED BY BOILE	R MANUFAG	CTURER TO OSE. POW	ENSURE ER BY					
CLEARANCE DOORS FOR	AS REQUIRED TO SERVICE, MAINTE	OPEN ACCESS A	NIMOM ND CONTF PECTION.	ROL	BOILER I 2. PROVIDE	PUMP (E SEAL	CONTROL ED COMB	CIRCUI	IT TO PU	IMP STARTEF	RELAY.	IIRACIOR	IO WIRE FROM					
MAINTAIN MI BY NEC.		AL CLEARANCES	AS REQUIF	RED :	3. ALL BOIL	ERS M	IOTORS A	ND CIR	CULATIC	ON PUMPS SH	IALL COMPI	Y WITH SE	CTION 23 05 13.					
					PUMF)												
	SERVICE	TYPE	GPM	HEAD	MOTOR	MAX.	CUF	RRENT	МА		MODEI	- REMAI						
TAG SHWP-2	HEATING HOT	VERTICAL		(FT.)	POWER	RPM	V 400	P I	F		NUMBE	R						
SHWP-1	WATER HEATING HOT	INLINE VERTICAL	280	105.00	15	1,800	480	3 6	50 A	RMSTRONG	4300	(1,2,	4)					
PHWP-2	HEATING HOT		191	25.00	5	1,800	480	3 6	50	-	-	(3,4)					
PHWP-1	HEATING HOT WATER	INLINE CIRCULATOR	191	25.00	5	1,800	480	3 6	50	-	-	(3,4)					
GENERAL NO	TES: D HAVE A NON-OV	ERLOADING MOT	OR.		<u>REN</u> 1. F	<u>/ARKS</u> : PROVID	E WITH V	ARIABLI		JENCY DRIVE								
INCHES. M SERVICE, N	AINTAIN MINIMUM AINTENANCE, AN	LEARANCE AROU CLEARANCES AS D INSPECTION.	ND A PUM 8 REQUIRE	D FOR	2. F 3. F	PUMP S	HALL BE	SELECT	TED BY E	BOILER MANU	FACTURER CONTRACT	, WITH OR AND						
·					C 4. F	PROVID	OLLED BY E PUMPS	7 BOILEF S WITH C	R. GAUGE T	APPINGS.								
					G	RIL												
MARK SE	RVICE TYPE			COLOR				BER	EXPOSE	D T-BAR CEIL	DESCF		H 24"X24" CONE F	ACE.				
A A	TURN		STEEL	WHITE			350	RI	EXPC	DSED T-BAR C	ROUNE EILING FRA	NECK.	NITH 24"X24" FAC	Ξ.				
C SU	AIR DIFFUSEF	<u> </u>	STEEL	WHITE		US		C	SURFAC	E MOUNT CE	LOUVER	ED FACE	TH 22"X22" OR 12"	'X12"				
D RE		R -	STEEL	WHITE		US	350	RL	SURF		CEILING FR	AME STYLE	یم. WITH 24"X24" FAC	E.				
E EXH	AUST DIFFUSEF	R -	STEEL	WHITE	тіт	US	3501	RL ^I	EXPOSE	D T-BAR CEIL	ING FRAME	STYLE WIT	H A 24"X24" OR 12 E	"X12"				
ER RE	TURN AIR -	-	-	-	-		-		EXISTIN	NG AIR DEVIC	E SHALL RE INDICAT	MAIN. REU ED CFM.	SE AND BALANCE	ТО				
ES SU	PPLY DIFFUSEF	-	-	-	-		-					MAIN. REU ED CFM.		10 				
	GRILLE	-	STEEL	WHITE			350		SIDEW	ALL GRILLE V	ACE. PERFE	RATED FAC	NT BARS. SURFA	CE				
1 DAMPERS N	<u></u> ⊢ GRILLE NOTED AS UT SHA		STEEL SSIFIED CI	⊤ WHITE FILING RA			WITH TH		BI ANKE	T.	MOUN	TED (1)						

2. COORDINATE FINAL AIR DEVICE LOCATION AND FINISH COLOR WITH ARCHITECT. <u>REMARKS</u>: 1. N/A

				DAMF	'ER	
MARK	ACTUATOR	DUTY	BLADE ACTION	MANUFACTURER	MODEL NUMBER	REMARKS
D-1	MANUAL BALANCING	UNDER 9" WIDE	N/A	N/A	N/A	SEE SMACNA CONSTRUCTION DETAILS REFERENCED "TYPICAL CONSTRUCTION DETAILS FOR LOW VELOCITY DUCTS."
D-2	MANUAL BALANCING	OVER 9" WIDE	OPPOSED	RUSKIN	MD-35	MANUAL DAMPER WITH STANDARD CONSTRUCTION FEATURES AND VENTLOCK #639 LOCKING REGULATOR.
D-3	MOTORIZED	OVER 9" WIDE	OPPOSED	RUSKIN	CD-60	LOW LEAKAGE DAMPER WITH BLADE SEALS
NOTES:						
N/A - '	NOT APPLICABLE					

				FAN S	CHEDU	LE											
					AR La			оск						DEMADKS		() Sa	las
							<u>~~~~</u>		ROOF		COOK			(1,2,3,7)		salasobrien.co Houston 10930 W. Sam H	m Houston I
	1800	0.5	120	1	60 H	I-SIAI	-		NLINE D	VIRECT	COOK		SQND	(1,2,3,4,5,6)	Houston, TX 7	7064
	1800	0.33	120	1	60	-	AHU-3	3D II	NLINE D	DIRECT	COOK		SQND	(1,2,3,4)		Registration: Project No:	F-4111 2024-0
			U	NISTRUT RL	NNERS SECU	RED TO STRI	UCTURE.	PROVIDE SPF	RING ISOLATION.	7. PROVI	DE WITH ROOF	CURB A	ND BIRD SCR	EEN.	3		
CHE RANG TENA SY NE	S ON NON- CE AS REG INCE, AND EC.	SERVICE SIDES UIRED TO OPEI INSPECTION.	S RI N	EFER TO MA			G UN										
CHE RANG TENA Y NE	S ON NON CE AS REC ANCE, AND EC.	SERVICE SIDES UIRED TO OPE INSPECTION.	S RI	EFER TO MA	R HAN	DLINC	details.	IT							IZE		
CHE RANG TENA Y NE	S ON NON CE AS REC NCE, AND C.	SERVICE SIDES UIRED TO OPEI INSPECTION.	S RI	FER TO MA	R HAN	DLINC	g un	IT	ENTERING AIR	HIN.		WATER		PIPE S TO COIL	IZE . (IN.)	REMARK	(S
CHE RANG TENA Y NE	S ON NON- CE AS REG INCE, AND CC.	SERVICE SIDES UIRED TO OPEI INSPECTION.	AIR TEMPE ENTERING WET BULB	FER TO MA	R HAN COOLING	DLINC ENTERING TEMP (°F)	G UN WATER GPM	PRESSURE DROP (FT.)	ENTERING AIR TEMPERATURE (°F)	MIN. HEATING CAPACITY	HEATING	WATER	PRESSURE DROP (FT.)	PIPE S TO COIL CHILLED WATER	IZE . (IN.) HOT WATER	REMARK	(S
	S ON NON- CE AS REG INCE, AND CC.	SERVICE SIDES UIRED TO OPEI INSPECTION.	AIR TEMPE ENTERING WET BULB 68.8 79.0	RATURE (°F LEAVING DRY BULI 54.5	R HAN COOLING LEAVING WET BULB 54.0	DLINC ENTERING TEMP (°F) 42 42	GUN WATER GPM 14.8	PRESSURE DROP (FT.) 15.0	ENTERING AIR TEMPERATURE (°F) 64.0 27.0	MIN. HEATING CAPACITY 85,374 26 244	HEATING ENTERING TEMP. (°F) 180.0 180.0	WATER GPM 8.6 2 7	PRESSURE DROP (FT.) 10.0 10.0	PIPE S TO COIL CHILLED WATER 1 1/2" 1 1/4"	IZE . (IN.) HOT WATER 1 1/4" 3/4"	REMARK	(S 10,11

MECHANICAL CONTROLS PLAN - LEVEL 1 - AREA A, B, C, D

Scale: 1/16" = 1'-0"

GENERAL NOTES

CONTRACTOR SHALL PROVIDE DEHUMIFICATION DURING THE

CONSTRUCTION SCHEDULE. THE SCOPE IS TO MAINTAIN ACCEPTABLE

HUMIDITY LEVELS WITHIN THE BUILDING: THE REMOVAL OF EXCESS

HUMIDITY FROM THE AIR THROUGHTOUT THE BUILDING. PROVIDE

PREVENTING THE LONG-TERM EFFECTS OF MOISTURE LEVEL THAT

CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL REQUIRED POWER

EXISTING DUAL DUCT

BOX SCHEDULE

MARK CFM RANGE INLET SIZE 150-350

355-500

505-650

655-1000

1005-1500

1505-2200

2205-3000

6"Ø

7"Ø

8"Ø

10"Ø

12"Ø

14"Ø

16"Ø

MOISTURE CONTROL RENTAL EQUIPMENT AND SOLUTION FOR

CAN DAMAGE INTERIOR BUILDING MATERIALS, BOOKS AND

ELECTRONIC EQUIPMENT.

GENERATING EQUIPMENT.

- 1. THESE CONSTRUCTION DRAWINGS DIAGRAMMATIC, AND DO NOT NECE ACTUAL DIMENSIONS. IT IS THE RES THE CONTRACTOR TO FIELD-VERIF AND COORDINATE PLACEMENT OF A AND ROUTING OF ALL PIPING AND/O 2. ALL MECHANICAL SYSTEMS SHOWN FROM EXISTING DRAWINGS AND PRI
- WORK. CONTRACTOR IS RESPONSIE VERIFYING ALL LOCATIONS AND SIZ SYSTEMS PRIOR TO THE START OF V

MECHANICAL KE PROVIDE NEW DDC TEMPERATURE : CONTROL WIRING. REFER TO SPECI

	INFORMATION.	
2>	PROVIDE BMCS MONITORING TEMPERATURE SENSOR AS INDICATED.	
	ᠬᠬᠬᠬ᠇ᠬ᠇᠇᠇᠇᠇᠇᠇᠇᠇	'
<u>3</u>)	PROVIDE NEW HUMIDITY SENSOR AT LOCATION SHOWN.)
	REFER TO SPECIFICATIONS FOR MORE INFORMATION.)
~		

KEY PLAN:

O'Brien
281-664-1900
Pkwy North, Suite 900
1 00209-00
):
S ARE ESSARILY REFLECT SPONSIBILITY OF Y ALL DIMENSIONS ALL EQUIPMENT OR DUCT SYSTEMS. N ON THIS PLAN ARE RELIMINARY FIELD IBLE FOR FIELD ZES OF MECHANICAL
YED NOTES:
E SENSOR AND CIFICATIONS FOR MORE
PERATURE SENSOR AS

GENERAL NOTES:

- 1. THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS. 2. ALL MECHANICAL SYSTEMS SHOWN ON THIS PLAN ARE FROM EXISTING DRAWINGS AND PRELIMINARY FIELD WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD
- **MECHANICAL KEYED NOTES:**

EXISTING DUAL DUCT

BOX SCHEDULE

MARK CFM RANGE INLET SIZ

6"Ø

7"Ø

8"Ø

10"Ø

12"Ø

14"Ø

16"Ø

150-350

355-500

505-650

655-1000

1005-1500

1505-2200

2205-3000

- > PROVIDE NEW DDC TEMPERATURE SENSOR AND CONTROL WIRING. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
- 2 PROVIDE BMCS MONITORING TEMPERATURE SENSOR AS INDICATED. 3 PROVIDE, INSTALL AND STARTUP NEW CARBON MONOXIDE MONITORING SYSTEM. REFER TO SPEC FOR ADDITIONAL INFORMATION.

1 MECHANICAL CONTROLS FLOOR PLAN - LEVEL 2 - AREA A, B, C, D, E, F Scale: 1/16" = 1'-0"

С Α

NATEX CORPORATION ARCHITECTS www.natexarchitects.com 447 Heights Boulevard Houston, TX 77007 Phone: 713-975-9525 Fax: 713-780-7824
Coleman Partners ARCHITECTS eparch.com
Arrow Suite 830 Houston,TX 77098 tel 832.947.1038 fax 225.214.5365
hallentalmes
BRADLEY KALMANS 80219 CENSED 000000000000000000000000000000000000
CIVIL ENGINEER BROOKS AND SPARKS, INC.
21020 PARK ROW KATY, TX 77449 tel: 281.578.9595
STRUCTURAL ENGINEER DALLY + ASSOCIATES, INC.
9800 RICHMOND AVE. SUITE 460 HOUSTON, TX 77042 tel: 713.337.8881
MEPT ENGINEER SALAS O'BRIEN 10930 W. SAM HOUSTON PKWY. N. SUITE 900 HOUSTON, TX 77064 tel: 281.664.1900
FOOD SERVICE EQUIPMENT FDP
25317 INTERSTATE 45 THE WOODLANDS, TX 77380 tel: 281.350.2323
LANDSCAPE ARCHITECT LANDESIGN GROUP 17041 EL CAMINO REAL SUITE 204 HOUSTON, TX 77058 tel: 281.486.4040

1 SKINNER CENTRAL PLANT Scale: 1/4" = 1'-0"

											(E)A	AR H	ANDLI	ING	UNIT										
				FAN	N						(COOLING							HEATING	G			PIPE S TO COIL	IZE (IN.)	
MARK	TYPE			EXT. STATIC		CURRE	ENT CH	HARAC.		AIR TEMP	ERATURE (°F)		WA	ATER		ENTERING AIR	MIN.		W	ATER			нот	REMARKS
		AIR CFM	AIR CFM	PRESSURE (IN. W.C)	POWER	V	PH	F	ENTERING DRY BULB	ENTERING WET BULB	LEAVING DRY BULB	LEAVING WET BULE	ENTERING TEMP (°F)	GPM	PRESSURE DROP (FT.)	VALVE TYPE	TEMPERATURE (°F)	HEATING CAPACITY	ENTERING TEMP. (°F)	GPM	PRESSURE DROP (FT.)	VALVE TYPE	WATER	WATER	
(E)AHU-1A	DDU	12,765	4,635	2.5	15	480	3	60	74.8	62.9	53.4	52.2	42	45.0	15.0	2-WAY	63.7	347,300	180.0	34.7	10.0	2-WAY	2-1/2"	2"	1,2
(E)AHU-2A	DDU	12,660	3,780	2.5	15	480	3	60	76.1	63.3	55.7	54.9	42	39.1	15.0	2-WAY	65.7	322,300	180.0	32.2	10.0	2-WAY	2"	2"	1,2
(E)AHU-3A	DDU	15,320	5,010	2.5	20	480	3	60	77.0	63.5	54.6	54.0	42	53.7	15.0	2-WAY	64.8	401,800	180.0	40.2	10.0	2-WAY	2-1/2"	2-1/2"	1,2
(E)AHU-4A	DDU	13,115	3,990	2.5	15	480	3	60	77.8	63.8	55.2	54.5	42	45.4	15.0	2-WAY	65.5	335,900	180.0	33.6	10.0	3-WAY	2-1/2"	2"	1,2
(E)AHU-1B	DDU	12,625	4,560	2.5	15	480	3	60	71.1	61.2	50.9	50.7	42	46.0	15.0	2-WAY	62.8	326,700	180.0	32.6	10.0	2-WAY	2-1/2"	2-1/2"	1,2
(E)AHU-2B	DDU	16,350	4,890	2.5	20	480	3	60	77.0	63.5	54.9	54.3	42	55.8	15.0	2-WAY	65.7	416,500	180.0	41.6	10.0	3-WAY	2-1/2"	2"	1,2
(E)AHU-1D	DDU	6,135	3,000	2.0	7.5	480	3	60	89.2	70.9	63.2	61.9	42	22.2	15.0	2-WAY	65.0	286,100	180.0	28.6	10.0	3-WAY	2"	2"	1,2
(E)AHU-2D	DDU	11,470	4,125	2.0	15	480	3	60	73.9	64.1	55.3	54.9	42	39.4	15.0	2-WAY	65.0	373,200	180.0	37.3	10.0	2-WAY	2"	2"	1,2
(E)AHU-1E	DDU	7,635	1,455	2.5	10	480	3	60	80.1	64.1	53.5	53.1	42	30.4	15.0	2-WAY	68.9	169,800	180.0	17.0	10.0	3-WAY	2"	1-1/2"	1,2
(E)AHU-2E	DDU	9,320	1,590	2.5	15	480	3	60	80.3	64.1	53.8	53.4	42	36.6	15.0	2-WAY	69.7	204,900	180.0	20.5	10.0	3-WAY	2"	2"	1,2
(E)AHU-1J	DDU	12,110	2,880	1.0	15	480	3	60	73.3	61.7	51.9	51.8	42	39.8	15.0	2-WAY	67.1	275,800	180.0	27.6	10.0	2-WAY	2"	2"	1,2
(E)OAHU-1A	SZU	8,415	8,415	0.5	7.5	480	3	60	97.0	77.0	53.0	52.8	42	87.1	15.0	2-WAY	20.0	336,800	180.0	33.6	10.0	2-WAY	3"	2"	1,2
(E)OAHU-2A	SZU	8,940	8,940	0.5	7.5	480	3	60	97.0	77.0	53.0	52.9	42	92.4	15.0	2-WAY	20.0	347,300	180.0	35.7	10.0	2-WAY	3"	2"	1,2
(E)OAHU-1B	SZU	4,560	4,560	0.5	3	480	3	60	97.0	77.0	53.4	53.4	42	47.4	15.0	2-WAY	20.0	151,300	180.0	15.1	10.0	2-WAY	2-1/2"	1-1/2"	1,2
(E)OAHU-2B	SZU	4,890	4,890	0.5	5	480	3	60	97.0	77.0	53.6	53.4	42	50.7	15.0	2-WAY	20.0	162,300	180.0	16.2	10.0	2-WAY	2-1/2"	1-1/2"	1,2
(E)OAHU-1D	SZU	7,125	7,125	0.5	5	480	3	60	97.0	77.0	52.9	52.7	42	74.1	15.0	2-WAY	20.0	231,800	180.0	23.2	10.0	2-WAY	3"	2"	1,2
(E)OAHU-1E	SZU	1,455	1,455	0.5	1.5	480	3	60	97.0	77.0	52.8	52.7	42	15.1	15.0	2-WAY	20.0	52,500	180.0	5.2	10.0	2-WAY	1-1/2"	1"	1,2
(E)OAHU-2E	SZU	1,590	1,590	0.5	1	480	3	60	97.0	77.0	53.0	52.8	42	16.5	15.0	2-WAY	20.0	51,700	180.0	5.1	10.0	2-WAY	1-1/2"	1"	1,2
(E)OAHU-1J	SZU	2,880	2,880	0.5	2	480	3	60	97.0	77.0	52.4	52.3	42	30.3	15.0	2-WAY	20.0	119,400	180.0	11.9	10.0	2-WAY	2"	1-1/4"	1,2

REMARKS:

1. REPLACE EXISTING CHILLED WATER CONTROL VALVE AND ACTUATORS, BALANCING AND ISOLATION VALVES AND EXISTING PIPING AND APPURTENANCES AS INDICATED ON DETAIL #10/M5.01 WITH NEW. 2. REPLACE EXISTING HEATING HOT WATER CONTROL VALVE AND ACTUATORS, BALANCING AND ISOLATION VALVES AND EXISTING PIPING AND APPURTENANCES AS INDICATED ON DETAIL #9/M5.01 WITH NEW.

] [
				(E	E)CC	DOLI	NG TO	OWEF	R												PUMF	5					
MARK	ENTERING WATER TEMP.(°F)	LEAVING WATER TEMP.(°F)	GPM	TOTAL TONS	- A W - TE	MBIENT ET BULB EMP. (°F)	NO. OF CELLS	OTOR HP (EACH)	URRENT CHARAC.	MANUFAC	TURER	MODEL		REMARKS		MARK	SERVICE	TYPE	GPM	HEAD (FT.)	MOTOR HORSE POWER	MAX. RPM	CURF V	RENT C	HARAC.	MANUFACTURER	MODEL NUMBEF
(E)CT-1 <u>REMARKS:</u>	96.0	86.0	6,600	(EACH CE 1,100	<u>LL)</u>	80	3	50 (3) 48	0 3 60	MARL	EY S	IGMA F SEI	RIES	1	(E)PCHP-1	CHILLED WATER	END SUCTION	330	167	30	1750	480	3	60	BELL & GOSSETT	1510
1.REF	LACE BYPASS C	ONTROL VALV	ES ON CON	DENSER WA	TER PIPIN	1G) (E)PCHP-2	CHILLED WATER	HORIZONTAL SPLIT CASE	1642	167	100	1750	480	3	60	BELL & GOSSETT	-
							В	OILEF	R SCI	HEDU	LE				(E	E)PCHP-3	CHILLED WATER	HORIZONTAL SPLIT CASE	1642	167	100	1750	480	3	60	BELL & GOSSETT	-
				MARK	EWT	LWT	GPM	MINIMUM	MINIMUM HEATING OUTPUT	GAS MANIFOLD PRESSURE	FLUE SIZE (IN. ROUND)	ELEC BLOWER			(E)PCHP-4	CHILLED WATER	HORIZONTAL SPLIT CASE	1650	167	100	1750	480	3	60	BELL & GOSSETT	-
				B-1	(F) 150°	(F) 180°	191	(MBH) 3,000	(MBH) 2,862	(PSI) -	10	0.5	(V/PH 480/	1/60 1	(E	E)SCHP-1	CHILLED WATER	END SUCTION	680	120	40	1750	480	3	60	BELL & GOSSETT	1510
				B-2	150°	180°	191	3,000	2,862	-	10	0.5	480/	1/60 1	(E)SCHP-2	CHILLED WATER	END SUCTION	680	120	40	1750	480	3	60	BELL & GOSSETT	1510
				REMARKS: 1. NEW E REFEF		NT PROVID	DED AS PAR OVATIONS	RT OF BUILDIN DRAWINGS F	IG RENOV/ OR ADDITI	ATION. ONAL INFOR	MATION.				(E	E)CWP-1	CONDENSER WATER	VERTICAL TURBINE	440	88	15	1750	480	3	60	ARMSTRONG	10M55
) (E	E)CWP-2	CONDENSER WATER	VERTICAL TURBINE	2200	88	75	1750	480	3	60	ARMSTRONG	14M270
							(E))WATE		OOLE	D CH	IILLE	R		(E	E)CWP-3	CONDENSER WATER	VERTICAL TURBINE	2200	88	75	1750	480	3	60	ARMSTRONG	14M270
						MARK	TON	IS EV	APORATO	R COI	NDENSER FLOW	VALVE TYPE	PIPE SIZE	REMARKS	(E	E)CWP-4	CONDENSER WATER	VERTICAL TURBINE	2200	88	75	1750	480	3	60	ARMSTRONG	14M270
						(E)CH-0	1 22	0 328.6	-	40°	440	2-WAY	8"	1	<u><u>s</u></u>	SHWP-1	HEATING HOT WATER	VERTICAL INLINE	286	105	15	1800	480	3	60	ARMSTRONG	4300
						(E)CH-0	2 1,10	00 1,642.	2 -	40°	2,200	2-WAY	8"	1	<u><u>s</u></u>	6HWP-2	HEATING HOT WATER	VERTICAL INLINE	286	105	15	1800	480	3	60	ARMSTRONG	4300
						(E)CH-0	3 1,10	00 1,642.	2 -	40°	2,200	2-WAY	8"	1	 F	PHWP-1	HEATING		191	25	5	1800	480	3	60	_	_
						(E)CH-0 REMARK 1.EXI	4 1,10 (<u>S:</u> STING CON	DU 1650 IDENSER WA	TER AND C	40°	2,200 ER	2-WAY	8"	1		PHWP-2	HOT WATER HEATING HOT WATER	INLINE CIRCULATOR	191	25	5	1800	480	3	60	-	-

(1	E)CC	OLIN	IG T	OWE	R													PUM	Ρ					
	, A	MBIENT	10.05		CU	RRENT												MOTOR		CURF	RENT C	HARAC.		MODEL
	L W S TE	ET BULB	CELLS	(EACH)	CH V	ARAC.	MANUFAC	TURER	MODEI	_ R	REMARI	RKS	MARK	SERVICE	TYPE	GPM	(FT.)	HORSE POWER	RPM	V	Р	F	MANUFACTURER	NUMBER
1,10)	80	3	50 (3)	480	3 60	MARL	EY S	Sigma f Se	RIES	1		(E)PCHP-1	CHILLED WATER	END SUCTION	330	167	30	1750	480	3	60	BELL & GOSSETT	1510
IDENSER WA	TER PIPIN	IG											(E)PCHP-2	CHILLED WATER	HORIZONTAL SPLIT CASE	1642	167	100	1750	480	3	60	BELL & GOSSETT	-
			E	BOILE	ER	SCI	HEDU	ILE					(E)PCHP-3	CHILLED WATER	HORIZONTAL SPLIT CASE	1642	167	100	1750	480	3	60	BELL & GOSSETT	-
MARK	EWT (°F)	LWT (°F)	GPM		M	MINIMUM HEATING OUTPUT	GAS MANIFOLD PRESSURE	FLUE SIZE (IN. ROUND	ELE BLOWER	CTRICAL CURREN CHARAG	NT C. REM	IARKS	(E)PCHP-4	CHILLED WATER	HORIZONTAL SPLIT CASE	1650	167	100	1750	480	3	60	BELL & GOSSETT	-
B-1	(1) 150°	180°	191	(MBH) 3,000		(MBH) 2,862	(PSI)	10	0.5	(V/PH/H2 480/1/6	IZ) 50	1	(E)SCHP-1	CHILLED WATER	END SUCTION	680	120	40	1750	480	3	60	BELL & GOSSETT	1510
B-2	150°	180°	191	3,000		2,862	-	10	0.5	480/1/6	50 ·	1	(E)SCHP-2	CHILLED WATER	END SUCTION	680	120	40	1750	480	3	60	BELL & GOSSETT	1510
REMARKS: 1. NEW REFE	EQUIPMEN R TO BUILI	NT PROVIDE DING RENO	D AS PAI	rt of Buii Drawing	_DING SS FOI	RENOVA R ADDITI	ATION. ONAL INFOR	MATION.					(E)CWP-1	CONDENSER WATER	VERTICAL TURBINE	440	88	15	1750	480	3	60	ARMSTRONG	10M55
													(E)CWP-2	CONDENSER WATER	VERTICAL TURBINE	2200	88	75	1750	480	3	60	ARMSTRONG	14M270
			(E)WA	ΤE	R C	DOLE	D CH	HILLE	R			(E)CWP-3	CONDENSER WATER	VERTICAL TURBINE	2200	88	75	1750	480	3	60	ARMSTRONG	14M270
					EVA	PORATO	r co	NDENSER						CONDENSER	VERTICAL									
		MARK		NS N G	IAX SPM	MIN GPM	LWT	FLOW GPM	TYPE	SIZE	REMAR	RKS	(E)CWP-4	WATER	TURBINE	2200	88	75	1750	480	3	60	ARMSTRONG	14M270
		(E)CH-01	22	20 3	28.6	-	40°	440	2-WAY	8"	1		SHWP-1	HEATING HOT WATER	VERTICAL INLINE	286	105	15	1800	480	3	60	ARMSTRONG	4300
		(E)CH-02	1,1	00 1,6	642.2	-	40°	2,200	2-WAY	8"	1		SHWP-2	HEATING	VERTICAL	286	105	15	1800	480	3	60	ARMSTRONG	4300
		(E)CH-03	1,1	00 1,6	642.2	-	40°	2,200	2-WAY	8"	1			HUT WATER										
		(E)CH-04	1,1	00 1	650	-	40°	2,200	2-WAY	8"	1		PHWP-1	HEATING HOT WATER	CIRCULATOR	191	25	5	1800	480	3	60	-	-
		REMARKS	<u>):</u> TING COI ATIONS S	NDENSER	WATE	R AND C		ſER					PHWP-2	HEATING HOT WATER	INLINE CIRCULATOR	191	25	5	1800	480	3	60	-	-

OLIN	G TO\	NER													PUM	D					
MBIENT ET BULB MP. (°F)	IO. OF MOTO CELLS (EA	OR HP CI CH) V	JRRENT HARAC.	MANUF	ACTURER	MODEL	-	REMARK	ks	MARK	SERVICE	TYPE	GPM	HEAD (FT.)	MOTOR HORSE POWER	MAX. RPM	CURR V	ENT C	HARAC. F	MANUFACTURER	MODEL NUMBEF
80	3 50	(3) 480	3 60	MA	RLEY	SIGMA F SE	RIES	1		(E)PCHP-1	CHILLED WATER	END SUCTION	330	167	30	1750	480	3	60	BELL & GOSSETT	1510
G										(E)PCHP-2	CHILLED WATER	HORIZONTAL SPLIT CASE	1642	167	100	1750	480	3	60	BELL & GOSSETT	-
	BO	ILER	SC	HED	JLE					(E)PCHP-3	CHILLED WATER	HORIZONTAL SPLIT CASE	1642	167	100	1750	480	3	60	BELL & GOSSETT	-
LWT	GPM	1inimum Input	MINIMUM HEATING OUTPUT	GAS MANIFOL PRESSUF	D FLUE SIZ	ZE BLOWER	CTRICAL CUR CHA	 RENT RAC REMA	ARKS	(E)PCHP-4	CHILLED WATER	HORIZONTAL SPLIT CASE	1650	167	100	1750	480	3	60	BELL & GOSSETT	-
(F) 180°	191	(MBH) 3,000	(MBH) 2,862	(PSI) -	10	0.5	(V/P) 480	H/HZ) //1/60 1		(E)SCHP-1	CHILLED WATER	END SUCTION	680	120	40	1750	480	3	60	BELL & GOSSETT	1510
180°	191	3,000	2,862	-	10	0.5	480	/1/60 1		(E)SCHP-2	CHILLED WATER	END SUCTION	680	120	40	1750	480	3	60	BELL & GOSSETT	1510
T PROVIDEI	D AS PART OI /ATIONS DRA	F BUILDING WINGS FC	G RENOV	ation. Onal info	ORMATION.					(E)CWP-1	CONDENSER WATER	VERTICAL TURBINE	440	88	15	1750	480	3	60	ARMSTRONG	10M55
										(E)CWP-2	CONDENSER WATER	VERTICAL TURBINE	2200	88	75	1750	480	3	60	ARMSTRONG	14M270
	(E)W	/ATE	RC	OOL	ED C	HILLE	R			(E)CWP-3	CONDENSER WATER	VERTICAL TURBINE	2200	88	75	1750	480	3	60	ARMSTRONG	14M270
MARK	TONS	EVA MAX GPM	APORATO MIN GPM	R C	ONDENSEF FLOW GPM	R VALVE TYPE	PIPE SIZE	REMARI	кs	(E)CWP-4	CONDENSER WATER	VERTICAL TURBINE	2200	88	75	1750	480	3	60	ARMSTRONG	14M270
(E)CH-01	220	328.6	-	40°	440	2-WAY	8"	1		SHWP-1	HEATING HOT WATER	VERTICAL INLINE	286	105	15	1800	480	3	60	ARMSTRONG	4300
(E)CH-02	1,100	1,642.2	-	40°	2,200	2-WAY	8"	1		SHWP-2			286	105	15	1800	480	3	60	ARMSTRONG	4300
(E)CH-03	1,100	1,642.2	-	40°	2,200	2-WAY	8"	1													
(E)CH-04	1,100	1650	-	40°	2,200	2-WAY	8"	1		PHWP-1	HOT WATER	CIRCULATOR	191	25	5	1800	480	3	60	-	-
REMARKS 1.EXIST ISOLA	<u>:</u> TING CONDEN ATIONS SHAI	ISER WAT	ER AND (ACED.	CHILLED W	ATER					PHWP-2	HEATING HOT WATER	INLINE CIRCULATOR	191	25	5	1800	480	3	60	-	-

SYMBOL DESCRIPTION (DISREGARD ITEMS NO GENERAL KEY NOTE TAG $\langle \# \rangle$ NOTE SPECIFIC TO DETAIL TAG REVISION TAG /#` DH ELECTRIC DUCT HEATER UH ELECTRIC UNIT HEATER \bigtriangleup PUMP MOTOR STARTER/DISCONNECT DS VARIABLE FREQUENCY DRIVE CP BUILDING MANAGEMENT CONTROL P/ FLOW METER DISPLAY LIGHTING CONTACTOR LC CONTROL COMBINATION FIRE & SMOKE DAMPER (FS) COMBINATION FIRE & SMOKE DAMPER M MOTORIZED DAMPER SENSORS (T)THERMOSTAT AND TEMPERATURE SE (H) HUMIDISTAT B LIGHTING TLO BUTTON (1) HVAC TLO BUTTON (1) (m) EMERGENCY SHUTDOWN STATION (1) (E) (CO^2) CARBON DIOXIDE SENSOR (TS) TIMER SWITCH LINE VOLTAGE THERMOSTAT (TL) (KT) KILN TIMER CO CARBON MONOXIDE MONITOR PB PURGE BUTTON (HS) FUME HOOD SWITCH SUBSCRIPTS AND ABBREVIATIONS AFF ABOVE FINISHED FLOOR BBS BELOW BOTTOM OF STRUCTURE CFM CUBIC FEET PER MINUTE EA EXHAUST AIR NC NORMALLY CLOSED NO NORMALLY OPEN OA OUTSIDE AIR RA **RETURN AIR** SA SUPPLY AIR HWC HOT WATER COIL REMARKS:

1.COORDINATE LOCATION WITH OWNER, COMMISSIONING AND ENGINEER.

NOTE: SCHEDULES INCLUDED ON THIS SHEET ARE INFORMATION FOR THE NEW EQUIPMENT IN OF THE BUILDING RENOVATION. REFER TO E RENOVATION DRAWINGS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

DUCTLESS MINI-SPLIT - INDOOR UNIT AIR TEMPERATURE (°F) COOLING FAN

MARK	SUPPLY	WATTS	CURRENT CHARAC.					MIN. TOTAL CAPACITY	MIN. SENS.	MINIMUM EER/SEER	REMARK
			V	Р	F		WEI DULD	(BTUH)	CAPACITY		
DMS-1	375	35.0	208	1	60	75.0	62.5	18,000	(#4,466)	15.0/-	1
DMS-2	750	45.0	208	1	60	75.0	62.5	34,200	27,360	15.0/-	1
DMS-3	375	35.0	208	1	60	75.0	62.5	18,000	14,400	15.0/-	1

REMARKS: 1. NEW EQUIPMENT PROVIDED AS PART OF BUILDING RENOVATION. REFER TO BUILDING RENOVATIONS DRAWINGS FOR ADDITIONAL INFORMATION.

DUCTLESS MINI-SPLIT - OUTDOOR UNIT

	MIN. TOTAL	OUTDOOR	MINIMUM	CURR	ENT CH	HARAC	. RELATED	
MARK	CAPACITY	AIR	SEER/HSPF	V	пц	Е	UNIT	REMARKS
	(BTUH)	TEMP (°F)	2	v	РП		MARK	
DMSCU-1	18,000	95	15.0/-	208	1	60	DMS-1	1
DMSCU-2	34,200	95	15.0/-	208	1	60	DMS-2	1
DMSCU-3	18,000	95	15.0-/-	208	1	60	DMS-3	1
	•	•				-	•	

REMARKS

1. NEW EQUIPMENT PROVIDED AS PART OF BUILDING RENOVATION. REFER TO BUILDING RENOVATIONS DRAWINGS FOR ADDITIONAL INFORMATION.

	Houston	. 201-004-1900
	10930 W. Sam H Houston, TX 77	ouston Pkwy North, Suite 900 064
	Registration: Project No:	F-4111 2024-00209-00
SVN	1B∩L LF	
DESCRIP	TION (DISREGARD	ITEMS NOT SHOWN ON PLANS)
KEY NOT	= TAG	
NOTE SP	ECIFIC TO DETAIL T	ĀG
REVISION	I TAG	
ELECTRI	DUCT HEATER	
ELECTRI	UNIT HEATER	
PUMP		
MOTOR S	TARTER/DISCONNE	ECT
VARIABLI	FREQUENCY DRI	/E
BUILDING	MANAGEMENT CO	NTROL PANEL (EXISTING)
FLOW ME	TER DISPLAY	
LIGHTING	CONTACTOR	
THERMO	STAT AND TEMPER	ATURE SENSOR
HUMIDIS	ТАТ	
LIGHTING	TLO BUTTON (1)	
HVAC TL	D BUTTON (1)	
EMERGE	NCY SHUTDOWN ST	TATION (1)
CARBON		
		1
		R
		אול
BELOW B		TURE
CUBIC FE	ET PER MINUTE	
EXHAUST	AIR	
NORMALI	Y CLOSED	
NORMALI	Y OPEN	
OUTSIDE	AIR	
RETURN	AIR	
SUPPLY	AIR	
HOT WAT	ER COIL	
ATE LO	CATION WITH OV	VNER,
IONING	AND ENGINEER.	

ELECTRICAL KEYED NOTES

CONTROL EXTERIOR LIGHTING WITH PHOTOCELL INTERMATIC #EK4236S OR APPROVED EQUAL. LOCATE PHOTOSENSOR SURFACEMOUNTED ON THE NORTH SIDE OF THE BUILDING.

APPROXIMATE ROUTE OF KNOWN UNDERGROUND PIPING AND INLETS. CONTRACTOR TO LOCATE EXISTING UNDERGROUND UTILITIES TO AVOID DAMAGE DURING INSTALLATION OF PROVIDE INTERMATIC EI600XX TIME SWITCH AND CONTROL PHOTOCELL OUTSIDE FOR

SITE GENERAL NOTES

- 1 CONTRACTOR TO COORDINATE FINAL LOCATION OF ALL CONDUITS WITH ALL OTHER TRADES.
- REFER TO CIVIL DRAWINGS FOR FINAL ROUTING AND DEPTH OF ALL UNDERGROUND UTILITIES.
- REFER TO TECHNOLOGY DRAWINGS, DIVISION 27 AND 28 FOR
- TELECOMUNICATIONS PATHWAYS AND OTHER REQUIREMENTS TO BE PROVIDED BY DIVISION 26. 4 PROVIDE PULL WIRES IN ALL EMPTY CONDUITS.

LINE TY	PE LEGEND
	EXISTING TO REMAIN
	DISCONNECT AND REMO
	NEW WORK

ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - AREA A Scale: 1/8" = 1'-0"

	S alas
	salasobrien.com
	Houston 10930 W. Sam Houston Pl Houston, TX 77064
	Registration: F-4111 Project No: 2024-00
	NEW WORK
	CONTRACTOR TO FIELD COORDINATE FINAL LOC REPLACEMENT AND NEW LIGHTING FIXTURES W CEILING MOUNTED DEVICES, AND TO NOTIFY EN THERE ARE ANY CONFLICTS BETWEEN EXISTING AND THE NEW LIGHTING LAYOUT PRIOR TO COM OF WORK.
	PROVIDE NEW LIGHTING DEVICES AND SWITCH E EXTENSIONS IN ALL AREAS WHERE GYPSUM BO WALL COVERING ADDS TO THE THICKNESS OF W ARCHITECTURAL DRAWINGS FOR AREAS AFFEC
	PROVIDE (1) MOMENTARY BMCS OVERRIDE TIME FOR BUILDING OCCUPIED/UNOCCUPIED ADJACE THE BMCS MASTER PANEL; (1) MOMENTARY BMC TIME-OUT SWITCH FOR EXTERIOR FACADE LIGH AND (1) MOMENTARY BMCS OVERRIDE TIME-OUT PARKING LOT LIGHTING ON/OFF IN MAIN ELECTR
	LIGHTING GENERAL NO
1	CONNECT NEW LIGHT FIXTURES TO EXISTING NORI CIRCUITS LEFT IN PLACE AFTER DEMOLITION OR NE
	PROVIDE EMERGENCY CIRCUIT FOR HATCHED FIXT EXIT SIGNS. EXTEND WIRING WITH MATCHING CON
	CONDUIT TO EXISTING LOCATION AND/OR NEW FIX VERIFY CONNECTED LOAD NOT TO EXCEED 3500 W
2	LOCATION OF NEW / REPLACEMENT LIGHT FIXTURE
	RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTU PRACTICAL. EXTEND WIRING WITH MATCHING CON
	WITH 1/2-INCH FLEXIBLE STEEL CONDUIT OR STEEL
	FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS
	SHALL BE 1/2-INCH FLEXIBLE STEEL CONDUIT, LENG
	LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MA
	OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THR
3	PROVIDE NEW LIGHTING CONTROLS, SENSORS AND
	DEVICES, 20A EMERGENCY LOAD CONTROL RELAYS TRANSFER SWITCHES. REFER TO SPECIFICATIONS
4	SHEETS. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR
	LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILIN OR BELOW ADJACENT TO SWITCH CONTROLLING T
	NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, L LIGHTING CONTROLLER IN ADJACENT ANCILLARY A
	EXTERIOR APPLICATIONS LOCATE ADJACENT TO P
	TO BOTTOM OF CEILING T-GRID BELOW RELAY LOC
	TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DL
5	LOCATE DIGITAL LIGHTING CONTROLLER FOR CORI AND HIGH CEILING AREAS WITH NO ADJACENT AND ADJACENT TO NORMAL POWER PANEL SERVING TH
	SPECIFICATIONS.
6	LOCATE DIGITAL LIGHTING CONTROLLER FOR INST SPACES AND OFFICES ABOVE ACCESSIBLE CEILING DIRECTLY OUTSIDE OF ENTRY DOOR. PROVIDE LAE ASSOCIATED SPACE GRID MARKERS WITH WORDIN
_	SPECIFICATIONS.
(OCCUPANCY/VACANCY SENSOR AND DAYLIGHTING LOCATIONS INDICATE SPACE OR AREA CONTROLLE
	MOUNTING LOCATIONS AS RECOMMENDED BY MAN
8	SPACES WITH MULTIPLE OCCUPANCY/VACANCY SE
	WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL TOGETHER FOR SIMULTANEOUS OPERATION WITH
9	CONTRACTOR SHALL MAINTAIN CONSTANT UNSWIT FROM EXISTING SOURCE AND/OR NEW AS SHOWN
	EMERGENCY FIXTURES, EMERGENCY LOAD RELAYS SWITCHES AND EXIT SIGNS.
0	COORDINATE LOCATION OF LIGHT FIXTURES IN ALL

KEY PLAN:

AND ALL OTHER TRADES.

REFER TO 26 05 33.



ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - AREA C

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



















ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - AREA D Scale: 1/8" = 1'-0"







_____ of _____

S

02

24

Ο

Ž

Δ

 \square

<u>S</u>



					C	j :	Sa	las
					sala Hou	asobri uston	en.com	
					Hou	uston,	TX 77	0051011 064
					Pro	jistrat ject N	ion: lo:	F-4111 2024-0
		LII	NE	ΤΥΙ	PEI	_E(GEN	ND
					EXIST	ING T	O REM	AIN
					DISCO	NNE WOR	CT AND	REMO
		CONT	RACTO		ELD CO		NATE F	
		REPLA CEILIN THERE AND TI OF WC	GEME G MOL ARE HE NE DRK.	NT AND JNTED I ANY CO W LIGH	NEW L DEVICE NFLICT	IGHTI S, ANI S BET YOUT	NG FIX D TO NO WEEN PRIOF	TURES OTIFY E EXISTIN TO CC
		PROVI EXTEN WALL ARCHI	DE NE ISIONS COVEF TECTU	W LIGH S IN ALL RING AD IRAL DF	TING DE AREAS DS TO RAWING	EVICE WHE THE T S FOI	s and Re gyf Hickni R area	SWITCH PSUM B ESS OF S AFFE
		PROVI FOR B THE BI TIME-C AND (1	DE (1) UILDIN MCS M DUT SV	MOMEN G OCCI ASTER VITCH F IENTAR	ITARY E JPIED/U PANEL; OR EXT Y BMCS	BMCS NOC (1) M ERIO	OVERF CUPIED OMENT R FACA R FACA	RIDE TIN ADJAC ARY BI ADE LIG TIME-O
		PARKI	NG LO	T LIGHT	ING ON	/OFF	IN MAIN	I ELECI
	LI	GH'	ΓΙΝ	GG	JEN	ER	AL	NO
1	CONN CIRCL PROV EXIT S	IECT NE JITS LE IDE EM SIGNS. I	EW LIG FT IN I ERGE EXTEN	GHT FIX PLACE NCY CI ND WIR	AFTER RCUIT	TO I DEM FOR TH M	EXISTII IOLITIC HATCH ATCHI	NG NO N OR I HED FIX NG CO
	VERIF TYPIC	Y CONI	NECTE	ED LOA	D NOT	N AN TO E	D/OR I XCEEE	0 3500)
2	LOCA RE-US PRAC	TION O SE EXIS TICAL. I	F NEW TING (EXTEN	/ / REP J-BOX / ND WIR	LACEM AND EX ING WI	ENT (ISTIN TH M	LIGHT IG LIGI ATCHI	FIXTUF HT FIX ⁻ NG CO
	COND WITH LENG	UIT AN ½-INCF TH NOT	D PRC I FLEX	VIDE N (IBLE S XCEED	IEW J-E TEEL C 6-FEE	30X / OND T, "D/	ABOVE UIT OF AISY CI	ACCE STEE
	FIXTU ALLOV SHALL	RES IN NED. F _ BE ½-	STALL OR NC INCH I	.ED FO)N-ACC FLEXIB	R LAY-I ESIBLE	N CE E CEII EL C	ILING / LINGS, ONDUI	AREAS LIGHT T. LEN
	REQU LIGHT CHAIN OR IN	IRED TO FIXTUI IED US TERNAI	O MAK RES IN ING TH	KE A TA NON-/ HE LIGH E WAY	P AT A ACCES IT FIXT THAT I	N AC SIBLE URE' S AC	CESSII E CEILI S INTE CESSIE	BLE J-E NGS M GRAL, BLE TH
3	FROM PROV	IBELOV	V THE W LIG A FMF	CEILIN HTING RGEN(IG. REF CONTF CY I OA	ER T ROLS, D CO	O 26 0 SENS	5 33 CO ORS AI RELA
1	TRANS SHEE	SFER S TS. TE DIGI		HES. R	EFER T			
•	LOAD OR BE	CONTF		ELAY A ENT TC	BOVE A			E CEILI OLLING
	LIGHT	ING CC	NTRC CEILI	NG. IN	N ADJA AREAS	WIT	T ANCI H NO C	
	THE L	OAD. P	ROVIE OF CE	DE PLA	STIC TA	NE AL NE N BELC	JACE ACHIN W RE	NE TYP LAY LC
5		ERS ON LABEL I	BLAC FOR D	K BACI IGITAL		ND V LE, IN TROI	VIIH 1/ NDICAT	4" HIGI TE AS: I OR CO
,	AND H ADJAC PROV	IIGH CE CENT TO IDE LAE	EILING O NOF BEL, G	AREAS RMAL P RID MA	S WITH OWER ARKERS	NO A PANE S WIT	DJACE EL SER H WOF	ENT AN RVING T RDING
5	LOCA SPACI DIREC ASSO	TE DIGI ES AND CTLY OU CIATED	ITAL LI OFFI JTSIDI SPAC	IGHTIN CES AE E OF EI CE, GRI	G CON BOVE A NTRY D D MAR	TROL CCES OOR KERS	LER F SSIBLE PRO\ SWITH	or ins Ceilin /Ide la Wore
7	OCCU LOCA CONT MOUN	IFICATI IPANCY TIONS I RACTO ITING L	ONS. /VACA NDICA R TO I OCAT	ANCY S ATE SP PROVII IONS A	ENSOF ACE OF DE ACT S REC(R ANE R ARE UAL (DMME) DAYL EA CON QUANT ENDED	IGHTIN NTROLI TITIES, 9 BY MA
3	AND IE SPACI WHER	ECC-20 ES WIT RE LINE	15 C40 H MUL OF SI	05. TIPLE GHT M	OCCUF	PANC	Y/VAC/ URED	ANCY S , SHAL
Ð	CONT FROM EMER	RACTO EXISTI GENCY	OR SI R SHA NG SC / FIXTU	MULTA ALL MAI DURCE JRES, I	NEOUS NTAIN AND/O EMERG	CON R NE ENC	ERATIC STANT W AS S Y LOAE	ON WIT UNSW SHOWI D RELA
0	COOR AND E AND A		E LOC	ATION ROOMS RADES	OF LIGI WITH	HT FI MECI	XTURE HANIC/	ES IN AI AL EQU
1	PROV SYSTE NOT B REFEI	IDE SEI EM, COI BE INST R TO 26	PARAT NTROI ALLEE 05 33	TE RAC LS WIR D IN TH	EWAY ING (DI E SAME	SYST MME E RAC	TEMS F RS OR DEWAY	OR LIC OTHEI AS LIN
		ELE	CTF	RICA	L K	EY	ED	NOT
	LIGHT FINAL LOCAT	ING IN C CONNE TE DIGIT	OOLEF	≺ / FREE PROVIE HTING (ZER TO DED BY I CONTRO) be f Divisi Dller	URNISH ON 26. AND IF	HED WIT
	EMER ACCES OUTSI SPACE	GENCY SSIBLE (DE OF E E, GRID LS.	LOAD (CEILIN(ENTRY MARKE	Contro G in Co Door. Ers wit	DL RELA RRIDOR PROVID H WORI	Y / TR / Ang E lab Ding	RANSFE CILLAR SEL IDEI PER SP	R SWIT / SPACE NTIFYIN ECIFIC/
	LOCAT	TE DIGIT D, EMER	AL LIG	HTING (7 LOAD		OLLER OL RE	AND A	ND IF S RANSFE



















ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 1 - AREA H

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

Salas O'Brien LOCATE DIGITAL LIGHTING CONTROLLER AND AND IF SHOWN, PLENUM RATED, EMERGENCY LOAD CONTROL RELAY / TRANSFER SWITCH WALL MOUNTED ADJACENT TO NORMAL POWER salasobrien.com Houston 10930 W. Sam Houston Pkwy North, Suite 900 LOCATE DIGITAL LIGHTING CONTROLLER AND IF SHOWN, PLENUM RATED, EMERGENCY LOAD Houston, TX 77064 CONTROL RELAY / TRANSFER SWITCH ABOVE ACCESSIBLE CEILING IN CONCESSIONS B100A. PROVIDE LABEL IDENTIFYING ASSOCIATED SPACE, GRID MARKERS WITH WORDING PER Registration: F-4111 Project No: 2024-00209-00 LINE TYPE LEGEND EXISTING TO REMAIN — — — — DISCONNECT AND REMOVE - NEW WORK CONTRACTOR TO FIELD COORDINATE FINAL LOCATION OF ALL REPLACEMENT AND NEW LIGHTING FIXTURES WITH EXISTING CEILING MOUNTED DEVICES, AND TO NOTIFY ENGINEER IF THERE ARE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THE NEW LIGHTING LAYOUT PRIOR TO COMMENCEMENT OF WORK. PROVIDE NEW LIGHTING DEVICES AND SWITCH BOX EXTENSIONS IN ALL AREAS WHERE GYPSUM BOARD OR OTHER WALL COVERING ADDS TO THE THICKNESS OF WALLS. SEE ARCHITECTURAL DRAWINGS FOR AREAS AFFECTED. PROVIDE (1) MOMENTARY BMCS OVERRIDE TIME-OUT SWITCH FOR BUILDING OCCUPIED/UNOCCUPIED ADJACENT TO OR IN THE BMCS MASTER PANEL; (1) MOMENTARY BMCS OVERRIDE TIME-OUT SWITCH FOR EXTERIOR FACADE LIGHTING ON/OFF AND (1) MOMENTARY BMCS OVERRIDE TIME-OUT SWITCH FOR PARKING LOT LIGHTING ON/OFF IN MAIN ELECTRICAL. LIGHTING GENERAL NOTES CONNECT NEW LIGHT FIXTURES TO EXISTING NORMAL POWER CIRCUITS LEFT IN PLACE AFTER DEMOLITION OR NEW AS SHOWN. PROVIDE EMERGENCY CIRCUIT FOR HATCHED FIXTURES AND/OR EXIT SIGNS. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT TO EXISTING LOCATION AND/OR NEW FIXTURES. FIELD VERIFY CONNECTED LOAD NOT TO EXCEED 3500 W @ 277V. TYPICAL LOCATION OF NEW / REPLACEMENT LIGHT FIXTURES SHALL RE-USE EXISTING J-BOX AND EXISTING LIGHT FIXTURE WHIPS AS PRACTICAL. EXTEND WIRING WITH MATCHING CONDUCTORS / CONDUIT AND PROVIDE NEW J-BOX ABOVE ACCESIBLE CEILING WITH ¹/₂-INCH FLEXIBLE STEEL CONDUIT OR STEEL MC CABLE, LENGTH NOT TO EXCEED 6-FEET, "DAISY CHAINING"LIGHT FIXTURES INSTALLED FOR LAY-IN CEILING AREAS IS NOT ALLOWED. FOR NON-ACCESIBLE CEILINGS, LIGHT FIXTURE WHIPS SHALL BE ¹/₂-INCH FLEXIBLE STEEL CONDUIT, LENGTH AS REQUIRED TO MAKE A TAP AT AN ACCESSIBLE J-BOX. RECESSED LIGHT FIXTURES IN NON-ACCESSIBLE CEILINGS MAY BE DAISY CHAINED USING THE LIGHT FIXTURE'S INTEGRAL, UL LISTED J-BOX OR INTERNAL WIRE WAY THAT IS ACCESSIBLE THROUGH FIXTURE FROM BELOW THE CEILING. REFER TO 26 05 33 CONDUIT SYSTEMS PROVIDE NEW LIGHTING CONTROLS, SENSORS AND ASSOCIATED DEVICES, 20A EMERGENCY LOAD CONTROL RELAYS AND/OR TRANSFER SWITCHES. REFER TO SPECIFICATIONS AND DETAIL SHEETS. LOCATE DIGITAL LIGHTING CONTROLLER AND / OR EMERGENCY LOAD CONTROL RELAY ABOVE ACCESSIBLE CEILING 12-FEET AFF OR BELOW ADJACENT TO SWITCH CONTROLLING THE SPACE. IN NON-ACCESSIBLE AND / OR HIGH CEILING AREAS, LOCATE DIGITAL LIGHTING CONTROLLER IN ADJACENT ANCILLARY AREA WITH ACCESSIBLE CEILING. IN AREAS WITH NO CEILING AND / OR IN EXTERIOR APPLICATIONS LOCATE ADJACENT TO PANEL SERVING THE LOAD. PROVIDE PLASTIC TAPE MACHINE TYPED NAME PLATE TO BOTTOM OF CEILING T-GRID BELOW RELAY LOCATION. WHITE LETTERS ON BLACK BACKGROUND WITH 1/4" HIGH LETTERS ON 1/2 TALL LABEL FOR DIGITAL MODULE, INDICATE AS: DLM. LOCATE DIGITAL LIGHTING CONTROLLER FOR CORRIDORS, GYM AND HIGH CEILING AREAS WITH NO ADJACENT ANCILLARY AREA ADJACENT TO NORMAL POWER PANEL SERVING THE LOAD. PROVIDE LABEL, GRID MARKERS WITH WORDING PER SPECIFICATIONS. LOCATE DIGITAL LIGHTING CONTROLLER FOR INSTRUCTIONAL SPACES AND OFFICES ABOVE ACCESSIBLE CEILING IN CORRIDOR DIRECTLY OUTSIDE OF ENTRY DOOR. PROVIDE LABEL IDENTIFYING ASSOCIATED SPACE, GRID MARKERS WITH WORDING PER SPECIFICATIONS. OCCUPANCY/VACANCY SENSOR AND DAYLIGHTING SENSOR LOCATIONS INDICATE SPACE OR AREA CONTROLLED, CONTRACTOR TO PROVIDE ACTUAL QUANTITIES, TYPES, AND MOUNTING LOCATIONS AS RECOMMENDED BY MANUFACTURER AND IECC-2015 C405. SPACES WITH MULTIPLE OCCUPANCY/VACANCY SENSORS OR WHERE LINE OF SIGHT MAY BE OBSCURED, SHALL BE LINKED TOGETHER FOR SIMULTANEOUS OPERATION WITHIN THE SPACE. CONTRACTOR SHALL MAINTAIN CONSTANT UNSWITCHED CIRCUITS FROM EXISTING SOURCE AND/OR NEW AS SHOWN FOR EMERGENCY FIXTURES, EMERGENCY LOAD RELAYS, TRANSFER SWITCHES AND EXIT SIGNS. 0 COORDINATE LOCATION OF LIGHT FIXTURES IN ALL MECHANICAL AND ELECTRICAL ROOMS WITH MECHANICAL EQUIPMENT, PIPING, AND ALL OTHER TRADES. PROVIDE SEPARATE RACEWAY SYSTEMS FOR LIGHTING CONTROL SYSTEM, CONTROLS WIRING (DIMMERS OR OTHERWISE) SHALL NOT BE INSTALLED IN THE SAME RACEWAY AS LINE VOLTAGE. REFER TO 26 05 33.

KEY PLAN: 6





ELECTRICAL KEYED NOTES

PANEL. PROVIDE LABEL IDENTIFYING ASSOCIATED SPACE WITH WORDING PER

SPECIFICATIONS. REFER TO DETAILS.

SPECIFICATIONS. REFER TO DETAILS.



















2/12/2025 1:50:47 PM



odesk Docs://23072_CFSID_Phase_6_r22/CFISD-SPILLANE MS_MEPT_R2

ELECTRICAL LIGHTING FLOOR PLAN - LEVEL 2 - AREA A

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



	2	6.	
		Ja	las
	salasot Housto	orien.com n	1
	10930 V Housto	V. Sam H n, TX 77	ouston P 064
	Registr Project	ation: No:	F-4111 2024-00
LINE TY	PE LE	GEN	ND
	EXISTING	TO REM	AIN
	DISCONN NEW WOI	ECT AND	REMOV
REPLACEMENT AND CEILING MOUNTED THERE ARE ANY CO AND THE NEW LIGH OF WORK.	DEVICES, A DEVICES, A DEVICES, A DIFLICTS BE	TING FIX ND TO N TWEEN JT PRIOF	TURES W OTIFY EN EXISTING TO CON
PROVIDE NEW LIGH EXTENSIONS IN ALL WALL COVERING AE ARCHITECTURAL DE	TING DEVIC AREAS WH DDS TO THE RAWINGS FO	ES AND ERE GYF THICKN OR AREA	SWITCH PSUM BC ESS OF N S AFFEC
PROVIDE (1) MOMEN FOR BUILDING OCC THE BMCS MASTER TIME-OUT SWITCH F	NTARY BMC UPIED/UNO PANEL; (1)	S OVERF CCUPIED MOMENT OR FAC	RIDE TIMI ADJACE ARY BM
AND (1) MOMENTAR PARKING LOT LIGHT	TING ON/OF	ERRIDE F IN MAIN	I ELECTE
LIGHTING (GENE	RAL	NO
CONNECT NEW LIGHT FIX CIRCUITS LEFT IN PLACE PROVIDE EMERGENCY C EXIT SIGNS. EXTEND WIR CONDUIT TO EXISTING LO VERIFY CONNECTED LOA	AFTER DE AFTER DE IRCUIT FOI ING WITH DCATION A D NOT TO) EXISTII MOLITIC R HATCH MATCHI ND/OR M EXCEEI	NG NOR)N OR N 1ED FIX NG CON NEW FIX 0 3500 W
TYPICAL. LOCATION OF NEW / REP RE-USE EXISTING J-BOX / PRACTICAL. EXTEND WIR	LACEMEN AND EXIST RING WITH	T LIGHT ING LIG MATCHI	FIXTURI HT FIXTI NG CON
WITH ½-INCH FLEXIBLE S LENGTH NOT TO EXCEED FIXTURES INSTALLED FO ALLOWED. FOR NON-ACC	TEEL CON 6-FEET, "I R LAY-IN C ESIBLE CE	DUIT OF DAISY CI EILING J	ACCES STEEL HAINING AREAS I LIGHT F
SHALL BE ½-INCH FLEXIB REQUIRED TO MAKE A TA LIGHT FIXTURES IN NON- CHAINED USING THE LIGI OR INTERNAL WIRE WAY	LE STEEL AP AT AN A ACCESSIB HT FIXTUR THAT IS A	CONDUI CCESSII LE CEILI E'S INTE CCESSIE	T, LENG BLE J-B(NGS MA GRAL, U BLE THR
FROM BELOW THE CEILIN PROVIDE NEW LIGHTING DEVICES, 20A EMERGEN TRANSFER SWITCHES. R	NG. REFER CONTROL CY LOAD C EFER TO S	TO 26 0 S, SENS ONTROI PECIFIC	5 33 CO ORS AN L RELAY CATIONS
LOCATE DIGITAL LIGHTIN LOAD CONTROL RELAY A OR BELOW ADJACENT TO NON-ACCESSIBLE AND / (IG CONTRO BOVE ACC SWITCH (OR HIGH C	OLLER A ESSIBLI CONTRO EILING A	ND / OR E CEILIN)LLING T \REAS, I
LIGHTING CONTROLLER I ACCESSIBLE CEILING. IN EXTERIOR APPLICATIONS THE LOAD. PROVIDE PLA TO BOTTOM OF CEILING	N ADJACE AREAS WI S LOCATE STIC TAPE	NT ANCI TH NO C ADJACE MACHIN	LLARY A EILING NT TO P NE TYPE
LETTERS ON BLACK BAC TALL LABEL FOR DIGITAL LOCATE DIGITAL LIGHTIN	KGROUND MODULE,	WITH 1/ INDICAT	4" HIGH E AS: D OR COR
AND HIGH CEILING AREA ADJACENT TO NORMAL P PROVIDE LABEL, GRID MA SPECIFICATIONS.	OWER PAI	NEL SEF	VING TH RDING F
SPACES AND OFFICES AND DIRECTLY OUTSIDE OF E ASSOCIATED SPACE, GRI SPECIFICATIONS.	BOVE ACCI NTRY DOC ID MARKEF	ESSIBLE R. PROV RS WITH	CEILIN /IDE LAI WORDI
OCCUPANCY/VACANCY S LOCATIONS INDICATE SP CONTRACTOR TO PROVII MOUNTING LOCATIONS A AND IECC-2015 C405.	ACE OR AN ACE OR AN DE ACTUAL S RECOMM	ID DAYL REA CON _ QUANT MENDED	IGHTINC NTROLLI TITIES, T BY MAI
SPACES WITH MULTIPLE WHERE LINE OF SIGHT M TOGETHER FOR SIMULTA CONTRACTOR SHALL MA FROM EXISTING SOURCE	OCCUPAN AY BE OBS NEOUS OF INTAIN CO AND/OR N	CY/VAC/ SCURED PERATIC NSTANT IEW AS \$	ANCY SE , SHALL)N WITH 1 UNSWI SHOWN
EMERGENCY FIXTURES, SWITCHES AND EXIT SIG COORDINATE LOCATION AND ELECTRICAL ROOMS	EMERGEN NS. OF LIGHT I S WITH ME	CY LOAD) RELAY
AND ALL OTHER TRADES PROVIDE SEPARATE RAC SYSTEM, CONTROLS WIR NOT BE INSTALLED IN TH REFER TO 26 05 33	CEWAY SYS RING (DIMM E SAME RA	STEMS F ERS OR ACEWAY	OR LIGI OTHER AS LIN
	LINE TYI LINE TYI	10930 Housto Registr Project Contractor To Field Conn Existing Exi	Idea of the second

















_____ of _____

















D B





NOTES
N AND CONNECT TO ER DEMOLITION, MATCHING SIZE TO TED LOAD NOT TO
STING 208V PANEL 'LE1'. 2 WIRE.











-						
			FO	OD S		
E103	JB/DS	38.7A	208	3	REFRIGERATION SYSTEM	VERIFY
E103C	JB	18.3A	208	1	FREEZER COIL	CLG
E103D	JB	2.7A	120	1	COOLER COIL	CLG
E103E	JB				DATA CONNECTION	CLG
E103F	JB	16.0A	120	1	DRAIN LINE HEATER	CLG

DIMENSIONS INDICATED ARE TO BE VERIFIED BY CONTRACTOR AND ADJUSTED AS REQUIRED BY FOODSERVICE EQUIPMENT AND / OR FIELD CONDITIONS.



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



ELECTRICAL POWER FLOOR PLAN - LEVEL 1 - AREA F

	S Salas
	Salasobrien.com Houston 10930 W. Sam Houston P Houston, TX 77064
	Registration: F-4111 Project No: 2024-00
LINE TY	PE LEGEND
	EXISTING TO REMAIN
	DISCONNECT AND REMOV
WHERE ANY WALL I EXISTING WALL MOU DEVICE, CONTRACT WIRING AND CONDU REPRESENTATIVE.	ERMINATES AT THE SAME L JNTED ELECTRICAL AND TEO OR SHALL RELOCATE DEVIC JIT AS INSTRUCTED BY OWN
COVERING ADDS TO ARCHITECTURAL DR	THE THICKNESS OF WALLS
TEMOPORARILY DIS MOUNTED ELECTRIC	CONNECT AND REMOVE ALL CAL AND FIRE ALARM DEVICI
THAT REQUIRE CEIL REPLACEMENT, INC	ING / WALL REMOVALS AND/ LUDING MECHANIAL, TECHN
COMPLETION RELO	CATE TO PREVIOUS LOCATIO
WHERE ANY EXISTIN	IG JUNCTION BOX AN/OR PU NON-ACCESSIBLE CEILING
CONTRACTOR SHAL	L RELOCATE DEVICE AND E
ARCHITECTURAL DR	AWINGS FOR AREAS AFFEC
EXISTING RACEWAY	
PRACTICAL FOR NE	W DEVICES AS PART OF NEV
POWE	R GENERAL
1 REFER TO FOR TELEC	TECHNOLOGY DRAWINGS
ADDITIONA SPECIFIED	L REQUIREMENTS TO BE I IN DIVISION 26.
2 WHERE AN LOCATION AND TECHN	Y NEW WALL TERMINATES AS AN EXISTING WALL MC NOLOGY DEVICE, CONTRA
RELOCATE AS INSTRU	DEVICE AND EXTEND WIF CTED BY OWNER OR ITS F
3 WHERE AN IS LOCATEI	Y EXISTING JUNCTION BO D AT A NEW NON-ACCESS
WIRING AN CEILING AS	D CONDUIT ABOVE NEARE
REPRESEN AREAS AFF	ITATIVE. SEE ARCHITECTU ECTED.
FOOD	SERVICE GEI
	NOTES
1 ACCESSOR FOODSERV	RIES AND FITTINGS PROVID
FIELD INST 2 STAINLESS	ALLED BY DIVISION 26. STEEL DISCONNECT SWI
AND INSTA 3 DOOR HEA	LLED BY DIVISION 26. TER(S), LIGHT(S), COIL(S),
RELIEF POI OF COLD S FINAL CON	RT(S) PRE-WIRED TO JUN TORAGE ASSEMBLY BY SI NECTION BY DIVISION 26.
ELEC	TRICAL KEYED
1 ROUTE 3/4"C ROUTE PAR	C. TO ASSOCIATED OUTDOOF ALLEL WITH REFRIGERATION
2 REFER TO D TYPICAL.	ETAILS FRO RACK RECEPTA
Bit Mathematical Stress PROVIDE 1"(Comparison of the stress o	U. FROM REFRIGERATION SY JRE MONITOR PANEL.
	FINAL CONNECTION PROVID DINATE EXACT LOCATION W
5 PROVIDE NE	ON. EW RECEPTACLES AS SHOW
EXISTING CI EXTEND CO NEW I OCAT	RCUITS LEFT IN PLACE AFTE NDUCTORS / CONDUIT WITH ION. FIELD VERIFY CONNECT
EXCEED 150 6 PROVIDE PC	00 W @ 120 V. DWER TO NEW ROOFTOP MA
RECEPTACL MAINTENAN	E FROM NEAREST ACCEPTA CE CIRCUIT. EXTEND CONDU
	D LOAD NOT TO EXCEED 1500 DRE THAN 8 DEVICES. IF NO /
IS AVAILABL ACCEPTABL	E AT ROOF. PROVIDE POWER E 120V PANEL, PROVIDE NEV RE TO FEED NEW PECEPTAG
7 PROVIDE NE	EW RECEPTACLES AS SHOWN RCUITS I FFT IN PLACE AFTE



DRAWINGS FOR FINAL MOUNTING HEIGHT AND LOCATION.





LANDSCAPE ARCHITECT LANDESIGN GROUP 17041 EL CAMINO REAL SUITE 204 HOUSTON, TX 77058 tel: 281.486.4040







_____ of _____

	Branch Panel: LJ1 Location: CORR B113 Supply From: Mounting: Surface		Ρ	Volts: 120/20 hases: 3 Wires: 4	8 Wye	EXISTINC A.I.C. Rating: EXIST. Enclosure: Type 1 Mains: 50A MCB						
						Phase in	kVA					
ote CKT	Circuit Description	Wire	Brea	ker	Α	В	С	Br	eaker	Wire	Circuit Descr	iption
E 1	Receptacles		20	1	0.7 / 0.9			1	20		Receptacles	
	Receptacles - 110B		20	1		0.5/0.7	07/07	1	20		Receptacles	
	Receptacles		20	1	05/05		0.7/0.7	1	20		Receptacles	
	Receptacles		20		0.5/0.5	05/10		1	20		Receptacies)
⊑ 9 ⊑ 11	Receptacles		20	1		0.571.0	05/05	1	20		Receptacies - Cord Reel 110E)
⊑ II ⊑ 13	Dron Recontacios		20	1	10/00		0.570.5	1	20		Receptacies	
E 15	Drop Receptacles		20	1	1.07 0.9	10/05		1	20		Recentacles	
E 17	GUH-1		20	1		1.070.0	07/00	1	20		SPARE	
19	Boiler Controls C109	#12	20	1	04/04		0.170.0	1	20	#12	Boiler Controls C109	
ᢇᢪᢩ	Trap Primer BOILER C109	\widehat{x}	<u>20</u>	Ý		02/00		1			SPACE	
معتينهم	SPACE	لتيتسم	ستيته		/	0.270.0	0.0 / 0.0	1			SPACE	
25	SPACE			1	0.0 / 0.0		0.07 0.0	1			SPACE	
27	SPACE			1		0.0 / 0.0		1			SPACE	
29	SPACE			1			0.0 / 0.0	1			SPACE	
		Total	Load:		5.3 kVA	4.5 kVA	3.2 kVA					
		Total A	mps:		46 A	39 A	27 A					
ad Class	ification	Connec	ted I (oad	Dem	and Factor	Estimat	ed D	emano	1	Pane	I Totals
		0.0		Juu	Dem					•		
		0.0	KVA			0.00%	0.0		A ^		Tatal Oann Laad	40.013/4
eceptacles	3	0.9	KVA		1	00.00%	0.9	9 KV	A		lotal Conn. Load	13.0 KVA
ower		0.0	kVA			0.00%	0.0	0 kV	A		Total Est. Demand	: 13.0 kVA
ghting		0.0	kVA			0.00%	0.0	0 kV	A		Total Conn. Current	: 36 A
iscellaneo	us	0.0	kVA			0.00%	0.0	0 kV	A		Total Est. Demand Current	: 36 A
kisting Lo	ads	Connec	ted Lo	oad	Dem	and Factor	Estimat	ed D	emand	1		l
Existing 12.1 kVA			1	00.00%	12	.1 kV	/Α					
otes:		I			I		Abbrevati	ons:				
XISTING PANEL - Total Calculated Existing Load shown in calculations.				10.5		G - PROVIDE GFCI CIRCUIT BREAKER LF - PROVIDE PERMANENT LOCK-OFF RE' IN PANEL DIRECTORY			IT BREAKER IT LOCK-OFF			

	Branch Panel: ELSI Location: PREP E1 Supply From: TELSB Mounting: Surface	B 24A	Ι		Volts: 120/20 Phases: 3 Wires: 4 Phase in	08 Wye kVA	I		NEW PANE A.I.C. Rating: 10,000 Enclosure: Type 1 Mains: 100A MCB	EL
CKT Note	Note CKT Circuit Description	Wire	Breaker	· A	В	с	Breaker	· Wire	Circuit Description	
2 E 4 F	1 DMSCU-1 E100H	#10	30 2	1.1 / 0.5	4.4./0.5		2 30	#10	IDF Rack - L6-30R	2 LC
6 E	5 Receptacle	#12	20 1		1.170.5	04/05				6
8 E		#12	20 1	0.5/0.5		0.470.0	2 30	#10	IDF Rack - L6-30R	8 LC
10 E	LO 9 IDF Rack - L6-30R	#10	30 2		0.5 / 1.2		1 20	#10	IDF Rack - L6-20R E229A	10 LC
14 E						1.1 / 0.2	1 20	#12	Door Access Controls D105A	12 LC
16 E	13 DMSC0-2 E200G	#10	30 2	1.1/0.5			2 20	#10	IDE Book J 6 20D E201 1	14
18 E	LO 15 FACP - Red Bkr E100-1	#12	20 1		0.5 / 0.5		2 30	#10	IDF Rack - LO-SUR E201-1	16
22	10 17 IDE Rack - L6-30R E201-1	#10	30 2			0.5 / 1.2	1 20	#8	IDF Rack - L6-20R E201-1	18 LC
24	19			0.5 / 0.5			2 30	#10	IDF Rack - L6-30R E201-1	20 LC
26	LO 21 IDF Rack - L6-20R E201-1	#8	20 1		1.2 / 0.5					22
30	LO 23 IDF Rack - L6-30R E201-1	#10	30 2	05/05		0.5 / 0.5	1 20	#10	SP.LER.01 D101A-1	24
		#10	20 1	0.5/0.5	05/10		1 20	#10	SP.LER.01 D101A-1	26
	27 SP.LER.01 D101A-1	#10	20 1		0.571.2	05/05	1 20	#0	SS.LRP.01 D101A-1	28
	31	#10	20 1	05/05		0.57 0.5	2 30	#10	IDF Rack - L6-30R E229A	30 LC
	LO 33 IDF Rack - L6-30R E229A	#10	30 2	0.07 0.0	05/00		1		SPACE	34
	35 SPACE		1			0.0/0.0	1		SPACE	36
	37 SPACE		1	0.0 / 0.0			1		SPACE	38
	39 SPACE		1		0.0 / 0.0		1		SPACE	40
	41 SPACE		1			0.0 / 0.0	1		SPACE	42
	43 SPACE		1	0.0 / 0.0			1 20		SPARE	44
	45 SPACE		1		0.0 / 0.0		1 20		SPARE	46
	47 SPARE		20 1			0.0 / 0.0	1 20		SPARE	48
	49 SPARE		20 1	0.0 / 0.0						50
	51 SPARE		20 1		0.0 / 0.0		3 30		SPDL	52
	53 SPARE		20 1			0.0/0.0				54
		Total	Load:	7.1 kVA	8.2 kVA	5.8 kVA				
	Lood Classification	l otal /	Amps:	01 A	70 A	48 A	ad Daman		Denal Tatala	
				J De					Failer Totals	
	Recentacles	16	8 kVA		79 69%	13	2 kVA		Total Conn. Load: 21.0 kVA	
			0 11 17 1		10.0070				Total Est. Demand: 17.6 kVA	
									Total Conn. Current: 58 A	
									Total Est. Demand Current: 49 A	
	Notes:				Abbrevations:					
				0	G - PROVIDE G	CI CIRCUIT	BREAKEF	र		
				l	.F - PROVIDE P	ERMANENT	LOCK-OF	F DEVI	CE	
									-	

	Branch Panel: LB1 Location: Supply From: Mounting: Surface				Ρ	Volts: 120/20 hases: 3 Wires: 4 Phase in	08 Wye kVA			1	A.I.C. Rating: Exist. Enclosure: Type Mains: 225A	KISTING MCB	
Note CKT	Circuit Description	Wire	Brea	aker	Α	В	С	Br	eaker	Wire	Circuit Desc	ription	СКТ
E 1	Existing Receptacles		20	1	0.0/0.0	0.0/0.0		1	20		Existing Receptacles		2
E 3	Existing Receptacles		20	1		0.070.0	00/00	1	20		Existing Receptacles		4
E 7	Existing Receptacles		20	1	0.0/0.0		0.070.0	1	20		Existing Receptacles		8
E 9	Existing Receptacles		20	1		0.0 / 0.0		1	20		Existing Receptacles		10
E 11	Existing Receptacles		20	1			0.0 / 0.0	1	20		Existing Receptacles\EF-1C		12
E 13	Existing Receptacles		20	1	0.0/0.0	0.0/0.0		1	20		Existing Receptacles		14
E 15	Existing Receptacles		20	1		0.070.0	00/00	1	20		Existing EDEs		18
E 19	Existing Vending Machine		20	1	0.0 / 0.0		0.070.0	1	20		Existing Vending Machine		20
E 21	Existing Vending Machine		20	1		0.0 / 0.0		1	20		Existing Vending Machine		22
E 23	Existing Refrigerator		20	1	0.0 / 0.0		0.0 / 0.0	1	20		Existing Refrigerator		24
E 25	Existing Microwave		20	1	0.0/0.0	0.0/0.0		1	20		EXISTING EF-68\EF-78		26
E 29	Existing Appliance		20	1		0.070.0	0.0 / 0.0	1	20		Existing EF-8B		30
E 31	Existing Appliance		20	1	0.0/0.0			1	20		Existing Receptacles		32
E 33	Existing Hand Dryer		20	1		0.0 / 0.0		1	20		Existing Receptacles		34
E 35	Existing Hand Dryer		20	1	00/00		0.0 / 0.0	1	20		Existing Receptacles		36
E 37 F 39	Existing Hand Dryer		20	1	0.070.0	00/00		1	20		Existing Receptacles		40
E 41	Existing Microwave		20	1		0.070.0	0.0 / 0.0	1	20		Existing Receptacles		42
E 43	Existing Receptacles\BF-1		20	1	0.0/0.0			1	20		Existing Refrigerator		44
E 45	Existing Receptacles		20	1		0.0 / 0.0	0.0 / 0.0	1	20		Existing Receptacles		46
E 47	Existing Receptacles		20	1	00/00		0.0/0.0	1	20		Existing Receptacles		48
E 49 E 51	Existing Receptacles		20	1	0.070.0	00/00		1	20		Existing Receptacles		52
E 53	Existing Receptacles		20	1			0.0 / 0.0	1	20		Existing Appliance		54
E 55	Existing Appliance		20	1	0.0 / 0.0			1	20		Existing Receptacles		56
E 57	Existing Receptacles		20	1		0.0 / 0.0	0.0.1.0.4	1	20		Existing Projector		58
E 59	Existing Appliance		20	1	00/00		0.0/0.4	1	20	#12	Maint. Receptacle E100H, E2	00G	60
E 63	Existing Receptacles		20	1	0.07 0.0	0.0 / 0.0		1	20		Existing Refrigerator		64
E 65	Existing Receptacles		20	1			0.0 / 0.0	1	20		Existing Hand Dryer		66
E 67	Existing Dishwasher		20	1	0.0/0.0			1	20		Existing Hand Dryer		68
E 69	Existing Proj. Screen		20	1		0.0/0.0	00/00	1	20		Existing Hand Dryer		70
_ 73			20		0.0/0.0		0.070.0		20				74
E 75	Existing Range		60	2		0.0 / 0.0		2	20		Existing Dryer		76
E 77	Existing Proj. Screen		20	1			0.0 / 0.0	1	20		Existing Washer		78
E 79	Existing Dryer		20	1	0.0/0.0	0.0/0.0		1	20		Existing Receptacles		80
8.3	SPACE			1		0.070.0	0.0 / 0.0	1			SPACE		84
		Tota	Load	:	24.6 kVA	24.6 kVA	24.9 kVA						
		Total	Amps	:	205 A	205 A	208 A	_					
Load Classi	ification	Conne	ected L	oad	Dem	and Factor	Estimate	ed D	eman	k	Pan	I Totals	
HVAC		0.	0 kVA			0.00%	0.0) kV/	A				
Receptacles		0.	4 kVA		1	00.00%	0.4	4 kV/	A		Total Conn. Load	l: 74.1 kVA	
Power		0.	0 kVA			0.00%	0.0) kV/	A		Total Est. Demane	l: 74.1 kVA	
Lighting		0.	0 kVA			0.00%	0.0) kV/	A		Total Conn. Curren	:: 206 A	
Miscellaneou	JS	0.	0 kVA			0.00%	0.0) kV/	A		Total Est. Demand Curren	:: 206 A	
										_			
Existing Lo	ads	Conne	ected L	oad	Dem	and Factor	Estimate	ed D	eman	k			
Existing		73	.7 kVA				73.	7 kV	'A				
Notes: EXISTING P	lotes: XISTING PANEL - Total Calculated Existing Load shown in calculations.						Abbrevations: G - PROVIDE GFCI CIRCUIT BREAKER						
S - EXISTIN	G CIRCUIT RELOCATED TO LS PANEL. REL	ABLE CIRC	UIT AS	6 'SP/	ARE' IN PAN	EL DIRECTOR	LO - PROV E - EXISTI	/IDE NG L	PERN _OAD	IANEN TO RE	IT LOCK-ON		

PANELBOARD CIRCUIT DIRECTORY:

CONTRACTOR SHALL RECORD AND/OR PRESERVE THE EXISTING CIRCUIT DIRECTORY, IF ANY, FOR THE SOLE PURPOSE UPON COMPLETION OF NEW WORK OF PRODUCING A NEW CIRCUIT DIRECTORY.

CONTRACTOR SHALL PROVIDE AS PART OF THE CONSTRUCTION DOCUMENTS A NEW, NEATLY TYPED DIRECTORY. CONTRACTOR SHALL TRACE ALL EXISTING CIRCUITS AND SHALL LEGIBLY IDENTIFY AS TO ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE, LOADS SERVED AND LOCATION AND/OR THE PANELBOARD SCHEDULE ON THE DRAWINGS. THE WORD "EXISTING" SHALL NOT BE USED ON PANELBOARD DIRECTORIES. SPARE BREAKERS ARE TO BE LISTED AS "SPARE". SPACES WITH NO BREAKERS ARE TO BE LEFT BLANK. REFER TO NEC-2023: 408.4(A) FOR DETAILS. CONTRACTOR SHALL PERMANENTLY LABEL AS PART OF THE CONSTRUCTION DOCUMENTS ALL SWITCHBOARDS, SWITCHGEAR AND PANELBOARDS **Salas O'Brien** salasobrien.com Houston 10930 W. Sam Houston Pkwy North, Suite 900 Houston, TX 77064 Registration: F-4111 Project No: 2024-00209-00

CKT Note		TO IN	NDICAT	TE EACH POWER SOURCE. REFER TO N	NEC-2023: 408.4	(B) FC	OR DETAI	LS.						Project No. 2024-0	0209-00
$ \begin{array}{c} 2\\ 4\\ \hline 6\\ \hline 8\\ \hline 0 \end{array} $ LO				Branch Panel: LD2	2									NEW PAN	EL
10 LO 12 LO 14 LO				Location: MECH. Supply From: TLD2 Mounting: Surface	MEZZ D202			Ρ	Volts: 120/20 hases: 3 Wires: 4	08 Wye				A.I.C. Rating: 18,000 Enclosure: Type 1 Mains: 250A MCB	٨
16 LO 18 LO 20 LO									Phase in	kVA					
22 LO 24 26		Note	СКТ	Circuit Description Receptacle C112-1		Wire #10	Breake	r A 1 0.7 / 0.5	B	С	Bre 1	eaker 20	Wire #12	Circuit Description	СКТ 2
28 30			3 5 7	SP.LER.01 C113-1 SP.LRP.01 C113-1		#12 ONE	100 3	3 3.0 / 1.7	0.5 / 0.5	3.0 / 1.7	1	20	#12	SP.LER.01 C113-1	4 6 8
32 LO 34	Λ		9 11	Projector C101-1		LINE #8	20 1	1	3.0 / 1.7	1.2 / 0.5	1	20	#12	Receptacles	10 12
36 38			13 15	Receptacles Receptacle		#10 #10	20 1 20 1	1 0.7 / 0.7 1	1.1 / 0.7		1 1	20 20	#12 #12	Receptacle Receptacle	14 16
40 42 44			17 19	Receptacles D104D Receptacles, GFCI Receptacle		#12 #12 #12	20 1 20 1	1 1 0.7 / 0.2	0.2/1.2	0.5 / 0.7	1	20 20 20	#12 #12	Receptacles D104E Receptacles	18 20
46 48			21 23 25	Receptacles D103-1 Receptacle C101-1 Receptacle, Receptacles , D103-1		#12 #12 #12	20 20 20	1 0.9 / 0.2	0.271.2	0.4 / 1.1	1 1	20 20 20	#10 #12 #12	Receptacles , Receptacle D103B Local Speakers ORCHESTRA-1 D104-1	22 24 26
50 52			27 29	SPACE SPACE			1 1	1	0.0 / 0.0	0.0 / 0.0	1 1			SPACE SPACE	28 30
4			31 33	SPACE SPACE			1 1	1 0.0 / 0.0 1	0.0 / 0.0	0.0/0.0	1	 20		SPACE SPARE	32 34
			35 37 39	SPARE SPARE SPARE			20 1 20 1 20 1	1 0.0 / 0.0 1	0.0/0.0	0.070.0	3	30		SPARE	30 38 40
		<u> </u>	41	SPARE		 Total	20 1 Load:	1 9.3 kVA	8.8 kVA	0.0 / 0.0 9.1 kVA					42
		Load	Class	ification	ר כ	Fotal / onnec	Amps: cted Loa	78 A d Dem	74 A and Factor	76 A Estimate	d De	eman	t	Panel Totals	
		HVA0 Rece	; ptacles	3		1.2 26.1	2 kVA 1 kVA	1	00.00% 69.19%	1.2	kVA 0 kV	۸ ۹		Total Conn. Load: 27.3 kVA	
														Total Conn. Current: 76 A Total Est. Demand Current: 53 A	
		Notes	5:					At G	brevations: - PROVIDE GI	FCI CIRCUIT I	BRE	AKER			
NEL								LF	- PROVIDE P) - PROVIDE F	PERMANENT I PERMANENT		<-OFF K-ON	DEV DEVI	ICE CE	
				Branch Panel: LFS										NEW PAN	EL
CKT Note				Location: ATHLET Supply From: TLFS	TICS STORAG	E		Р	Volts: 120/20 hases: 3	08 Wye				A.I.C. Rating: 10,000 Enclosure: Type 1	
2 E 4 E 6 E				Mounting: Surface					Wires: 4 Phase in	kVA			1	Mains: 60A MCB	
δ E 10 E 12 E		Note	Скт	Circuit Description		Wire	Breako	r 🛆	R	C	Br⁄	akor	Wire	Circuit Description	СКТ
14 E 16 E 18 F		PH	1	Exterior Lighting Receptacles ATHLETICS STORAGE I	BUILDING	#12 #12	20 1 20 1	1 0.0 / 0.3	0.5 / 0.5		1	20 20	#12 #12	Lighting Receptacles , GFCI Receptacle S1000,	2 4
<u>'0 E</u> <u>'2 E</u> 24 E			5 7	EF-SB-1 S1000 Receptacles S1000		#12 #12	20 1 20 1	1 0.5 / 0.0		1.2 / 0.0	1			SPACE SPACE	6
E E E			9 11 12	SPACE SPACE SPARE			1 1 20	1 0.0/0.0	0.0 / 0.0	0.0 / 0.0	1 1 1	 20		SPACE SPACE SPARE	10 12
E E E			15 17	SPARE SPARE		 	20 1 20 1 20 1	1 0.070.0 1	0.0 / 0.0	0.0 / 0.0	י 1 1	20 20 20		SPARE SPARE	14 16 18
E E E			· · · ·			Total Fotal /	Load: Amps:	0.8 kVA 7 A	1.1 kVA 9 A	1.2 kVA 10 A		-	· · · ·	,	
E E F		HVAC	Class	ification		00000000000000000000000000000000000000	cted Loa 2 kVA 3 k\/A	d Dem	and Factor 00.00% 25.00%	Estimate	kVA			Total Conn. Load: 2.1 W/A	
E		Rece	ng ptacles	3		1.6	i kVA	1	00.00%	1.6	kVA	\		Total Est. Demand: 3.2 kVA Total Conn. Current: 9 A	
<u>E</u> <u>4</u> <u>6</u> <u>8</u> <u>E</u> 0														Total Est. Demand Current: 9 A	
50 62 E 64 E 66 E 68 E 70 E 72 E		Notes	5:			_		At G LF LC PH	brevations: - PROVIDE GI - PROVIDE P - PROVIDE F I - CONTROLI	FCI CIRCUIT I PERMANENT I PERMANENT LED VIA PHO	BRE/ LOCI	AKER K-OFF K-ON ELL	DEVI	ICE CE	
4 E 6 E 8 E 0 E 2 E				Branch Panel: LG2	2			1						NEW PAN	EL
<u>34</u>				Location: MECH. Supply From: TLG2 Mounting: Surface	MEZZ-1 G200-	-1		P	Volts: 120/20 hases: 3 Wires: 4 Phase in	08 Wye • kVA				A.I.C. Rating: 10,000 Enclosure: Type 1 Mains: 100A MCB	
		Note C C	СКТ 1 3	Circuit Description Circulating Fan Circulating Fan		Wire #10 #10	Breake 20 1 20 1	r A 1 0.7 / 0.7	B	С	Bre 1	aker 20 20	Wire #10 #10	Circuit Description Circulating Fan Circulating Fan	СКТ 2 4
		C C	5 7	Circulating Fan B107-1 Circulating Fan		#10 #10	20 1 20 1	1 0.7 / 0.7		0.7 / 0.7	1	20 20	#10 #10	Circulating Fan Circulating Fan	6
]		LF LF	9 11 12	Hand Dryer Hand Dryer Recentacle		#10 #8 #10	30 1 30 1	1	1.5 / 1.5	1.5 / 1.5	1 1 1	30 30	#10 #8	Hand Dryer Hand Dryer Recentacle	10 12
			15 17	Receptacle Receptacle		#12 #12 #12	20 1 20 1 20 1	1 0.470.4	0.4 / 0.4	0.4 / 0.4	י 1 1	20 20 20	#12 #12 #12	Receptacle Receptacle	14 16 18
			19 21	Receptacle B107-1 Receptacle B107-1		#12 #12	20 1 20 1	1 0.4 / 0.4 1	0.4 / 0.4		1	20 20	#12 #12	Receptacle B107-1 Receptacle B107-1	20 22
		LF	23 25	EF-2G B101E Trap Primer B101B-1		#12 #12	20 1 20 1	1 0.2 / 0.2		0.5 / 0.5	1	20 20	#12 #12	EF-2H B107F Trap Primer B107B-1	24 26
			27 29	SPACE SPACE SPACE			1 1	1	0.0 / 0.0	0.0 / 0.0	1 1 1			SPACE SPACE SPACE	28 30
			31 33 35	SPARE SPARE		 	1 20 1 20 1	1 0.070.0 1	0.0 / 0.0	0.0 / 0.0	1 1 1	 20 20		SPARE SPARE	32 34 36
			37 39	SPARE SPARE			20 1 20 1	1 0.0 / 0.0 1	0.0 / 0.0		3	30		SPDL	38 40
			41	SPARE		 Total	20 1 Load:	1 4.7 kVA	5.9 kVA	0.0 / 0.0 6.2 kVA					42
		Load Motor	Class	ification		onneo 1.0	ted Loa kVA	d Dem	and Factor 00.00%	Estimate	d De kVA	emano	b	Panel Totals	
		Rece	ptacles	3		15.	7 kVA		31.81%	12.	9 kV	4		Total Conn. Load:16.7 kVATotal Est. Demand:13.9 kVA	
														Total Conn. Current:46 ATotal Est. Demand Current:38 A	
		Note	2'						brovetion						
								G LF LC	- PROVIDE GI - PROVIDE P - PROVIDE F - CONTROLLF	FCI CIRCUIT I PERMANENT I PERMANENT ED VIA CONT	BRE/ LOCI	AKER <-OFF K-ON OR	DEVI DEVI	ICE CE	













ABM RACK WA ALA SUB

YMBOI ICS (S4) (S5) (S6) RPS ACS LD

NOTES:

	TECHNOLOGY LEGEND - 27 10 00												
OL	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES									
	WALL MOUNTED NETWORK OUTLET D#: NUMBER OF DATA DROPS IN OUTLET AP: WIRELESS ACCESS POINT	+18" AFF, UNLESS OTHERWISE NOTED	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C										
	COMMUNICATIONS OUTLET	FIELD COORDINATE	FIELD COORDINATE										
	WALL MOUNTED NETWORK OUTLET	+44" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C										
	WALL MOUNTED BOX FOR FUTURE USE.	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C										
	FLOOR MOUNTED NETWORK OUTLET	N/A	COORDINATE WITH ELECTRICAL CONTRACTOR	FINISHED HARDWARE PROVIDED BY DIV 27									
- '#	CEILING MOUNTED NETWORK OUTLET AP: WIRELESS ACCESS POINT D#": NETWORK OUTLET	ABOVE CEILING	CEILING BRACKET WITH BISCUIT BLOCK										

NOTES: 1. #-G INDICATES BACK BOX SIZE. 2. #-C INDICATES CONDUIT SIZE.

3. UNO: UNLESS NOTED OTHERWISE CONDUIT STUB UP AND SLEEVES SHALL HAVE A SOLID UNCUT PLASTIC PROTECTIVE BUSHING.
 NO CONDUITS SHALL EXCEED FOR 40% MAXIMUM FILL RATIO. CONTRACTOR TO PROVIDE ADDITIONAL CONDUITS REQUIRED.

AUDIO/VIDEO LEGEND - 27 41 16.10

L	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
	WALL MOUNTED PROJECTOR AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLANS.	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
	CEILING MOUNTED PROJECTOR AUDIO/VISUAL OUTPUT OUTLET	CEILING MOUNTED	N/A	NOTE #5
	WALL MOUNTED AUDIO/VIDEO INPUT OUTLET	+18" AFF UNO	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	
	WALL MOUNTED FLAT SCREEN DISPLAY AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLAN	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5
	WALL MOUNTED FLAT SCREEN DISPLAY AUDIO/VISUAL OUTPUT OUTLET ASSOCIATED WITH AV-1 INPUT OUTLET	REFERENCE FLOOR PLAN	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
	INTERACTIVE VIDEO DISPLAY AUDIO/VISUAL OUTPUT OUTLET	REFERENCE FLOOR PLAN	4 11/16"X4 11/16"X2-1/8" BACK BOX WITH DOUBLE GANG RING, TWO(2) 1.25"C	NOTE #5
	AV CONTROL PANEL	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
	LOCAL INSTRUCTIONAL SPACE PRESENTATION SPEAKER	CEILING	CONTRACTOR PROVIDED CEILING BOX	COORDINATE POWER WITH EC
	STREAMING CAMERA	CEILING UNO	N/A	NOTE #5
2.				

NOTES: 1. #-G INDICATES BACK BOX SIZE. 2. #-C INDICATES CONDUIT SIZE.

3. UNO: UNLESS NOTED OTHERWISE THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR. 5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

	LOCAL SOUND SYSTEM LEGEND - 27 41 16.20							
_	DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES				
	LOCAL SOUND SYSTEM SPEAKER P: POLE MOUNTED SPEAKER	CEILING MOUNT UNO	CONTRACTOR PROVIDED BACK BOX OR 4"X4"X2 1/8" J BOX WITH COVER, 1"C					
	LOCAL SOUND SYSTEM CONTROL PLATE	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C					
	MICROPHONE INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C					
	COMBINATION OUTLET CONSISTING OF ONE (1) MICROPHONE INPUT AND ONE (1) AUXILIARY INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C					
	3.5MM STEREO AUDIO AUXILIARY INPUT	+18" AFF UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C					
	HANGING MICROPHONE	CEILING MOUNT	N/A					
	AUXILIARY INPUT AND BLUETOOTH MIXER	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C					
	VENUE SPECIFIC LOCAL SOUND SYSTEM HEAD END RACK	WALL MOUNT UNO	N/A					
	WIRELESS ANTENNA	WALL MOUNT UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C					
	ASSISTED LISTENING ANTENNA	WALL MOUNT UNO	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C					
	SUBWOOFER	CEILING MOUNT UNO						

NOTES: 1. #-G INDICATES BACK BOX SIZE. 2. #-C INDICATES CONDUIT SIZE.

. UNO: UNLESS NOTED OTHERWISE

THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR. 5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

INTERCO	M LEGEND	D - 27 50 00	
DESCRIPTION	ELEVATION	BACK BOX/RACEWAY	NOTES
INTERCOM COMMUNICATIONS SYSTEM HEAD END UNIT.	FLOOR MOUNTED	COORDINATE WITH EC	COORDINATE POWER WITH EC
CEILING MOUNT INTERCOM SPEAKER, LAY-IN CEILING	CEILING	CONTRACTOR PROVIDED	
CEILING MOUNT INTERCOM SPEAKER, HARD CEILING.	CEILING	CONTRACTOR PROVIDED	
WALL MOUNT INTERIOR INTERCOM SPEAKER	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	
WALL MOUNT EXTERIOR INTERCOM SPEAKER	+10' AFF UNO	CONTRACTOR PROVIDED	
PENDANT MOUNT INTERCOM SPEAKER	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	
SURFACE MOUNT INTERCOM SPEAKER, MOUNT TO STRUCTURE	CEILING	CONTRACTOR PROVIDED	
CEILING MOUNTED EXTERIOR INTERCOM SPEAKER.	CEILING	CONTRACTOR PROVIDED	
IP BASED SPEAKER. '#' TO BE REPLACED WITH S, S2, S3, S4 INDICATING THE SPECIFIC TYPE OF SPEAKER.	REFERENCE FLOOR PLANS	CONTRACTOR PROVIDED	NOTE #5
WALL MOUNTED VOLUME CONTROL	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
INTERCOM CALL BUTTON	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
SINGLE FACE CLOCK	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
DOUBLE FACE CLOCK	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
REMOTE PROGRAM SOURCE	DESK TOP	COORDINATE WITH EC	NOTE #5
ADMINISTRATIVE CALL STATION.	DESK TOP	N/A	NOTE #5
LOCKDOWN BUTTON	+48" AFF	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	
LARGE MESSAGE BOARD, POE+ POWERED	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACK BOX WITH 1-G MUD RING, 1"C	NOTE #5

1. #-G INDICATES BACK BOX SIZE. #-C INDICATES CONDUIT SIZE. UNO: UNLESS NOTED OTHERWISE

. THE SYSTEM INTEGRATOR SHALL COORDINATE ALL BOX AND CONDUIT SIZE REQUIREMENTS PRIOR TO ROUGH-IN BY THE PROJECTS ELECTRICAL CONTRACTOR. 5. PROVIDE AND INSTALL ONE (1) CATEGORY CABLE TO CONNECT DEVICE TO NETWORK

	ACC	ESS CONTROL LE	EGEND -	28 10	00 & 28 10	00.	05		S	SUBSCRIPTS AND ABBREVIATIONS
SYMBOL		DESCRIPTION	ELEVA	ATION	BACK BOX/RACEWAY		NOTES		TEXT	DESCRIPTION
ACP	ACCES	SS CONTROL SYSTEM, CONTROL PANE	EL. +60" AFF	TO CENTER	AS REQUIRED	COO	RDINATE POWER.		WP'	DEVICE SHALL BE WEATHER PROOF AND RATED FOR EXTERIOR CONDITIONS
	ACCESS	CONTROL PROXIMITY CARD READER	R. +42" A.F.F	.	1-G, 3/4" C	NOTE	<u>=</u> #4.		•	FIELD COORDINATE ELEVATION.
<u>K</u> *#	DEFAUL *M - IND	T SYMBOL INDICATES WALL MOUNTED ICATES MULLION MOUNTED READER	D						AFF	ABOVE FINISHED FLOOR
(CR)	DOOR I PROXIN	MOUNTED ACCESS CONTROL MITY CARD READER THAT IS	+42" AFF		N/A				'UC'	DEVICE IS TO BE MOUNTED ON THE UNDERSIDE OF THE ELEVATED CANOPY.
\bigcirc	INTEGF	RATED INTO THE DOOR HARDWARE.							WG'	
DS *#	2-WAY *DEFAU	AUDIO/VIDEO INTERCOM DOOR STATI	ON. +42" AFF		*W: 1-G, 3/4" C *M: 3/4"C	NOTE	#4.			WIRE GUARD TO BE PROVIDED AND INSTALLED TO PROTECT ASSOCIATED DEVICE.
<i>"</i>	*M - INE	DICATES MULLION MOUNTED DEVICE	сом +42" AFF.	FIELD		COOR	RDINATE POWER.		SUR	SCRIPTS LEGEND - EXISTING DEVICES
	DOORS	STATION.				NOTE	#4			
MS	2-VVAY	AUDIO/VIDEO INTERCOM MASTER STA	UNO			NOTE	E#4			DESCRIPTION
			COORDINA	ATE WITH GO	C 1-G, 3/4" C				E	EXISTING TO REMAIN. DEVICE IS EXISTING AND IS TO BE REMOVED. CONTRACTOR TO REMOVE THE DEVICE
	DOOR P	PROP ALARM	CEILING N	IOUNTED	N/A	N/A			'D'	AND RETURN TO OWNER.
		AGNETIC DOOR CONTACT/DOOR POS	UNO SITION FLUSH M	OUNTED	N/A	PROV	/IDED BY ACS		'R'	REMOVE EXISTING DEVICE AND RELOCATE TO A LOCATION INDICATED ON THE DRAWINGS.
(DC)	SENSO	R.	IN DOOR	FRAME		CONT	TRACTOR.			
SS	NETWO	RK SIREN STROBE	CEILING N UNO	MOUNTED		NOTE	#4			NOTES TO CONTRACTOR
<u>NOTES:</u> 1. #-G II 2. #-C II 3. UNO: 4. PRO\	NDICATES NDICATES UNLESS VIDE AND	S BACK BOX SIZE. S CONDUIT SIZE. NOTED OTHERWISE INSTALL ONE (1) CATEGORY CABLE T		CE TO NETW	/ORK	I		1. E 2. S E 3. C	VERY SYMB YSTEM INST LECTRICAL ONTRACTO NTERING AN	OL SHOWN ON LEGEND MAY NOT APPEAR ON DRAWINGS. ALLERS SHALL COORDINATE LOCATIONS AND CONNECTIONS WITH THE PROJECT'S CONTRACTOR. R TO PROVIDE PROPERLY GROUNDED LIGHTING PROTECTION ON ALL CABLING ND EXITING THE BUILDING.
		VIDEO SURVEIL	LANCE	LEGE	ND - 28 20 (00				
SYMBOL		DESCRIPTION	ELEV	ATION	BACK BOX/RACEWA	Y	NOTES		TE	CH DEMO PLAN GENERAL NOTES
	WALL/C	ORNER MOUNT 4-SENSOR CAMERA	REFERENCE FLO	DOR 4	4"X4"X2 1/8" BACK BOX W	/ITH	NOTE #5		A	DEVICES ARE REMOVED, REPLACED OR ADDED. CONTRACTOR SHALL
					1-G MUD RING, 1"C					TO REMOVAL OF EXISTING TILE.
	GLILING		GEIEING				NOTE #5		В	CONTRACTOR SHALL HAVE EACH LOW VOLTAGE SYSTEM TESTED PRIOR TO THE
	2-SENS	OR CAMERA	REFERENCE FLO PLANS	DOR 4	4"X4"X2 1/8" BACK BOX W 1-G MUD RING, 1"C	/ITH	NOTE #5			LIMITED TO: 1) FIRE ALARM 2) INTERCOM
	1-SENS	OR CAMERA	REFERENCE FLO	DOR 4	4"X4"X2 1/8" BACK BOX W 1-G MUD RING, 1"C	WITH				 3) STRUCTURED CABLING 4) INTRUSION DETECTION
VRS	VIDEO F	RECORDING SERVER								5) ACCESS CONTROL 6) AUDIO VIDEO
#MU	VIDEO S	SURVEILLANCE MAIN UNIT	ABOVE CEILING				NOTE #5			7) VIDEO SURVEILLANCE TESTING SHALL INCLUDE THE FUNCTIONALITY OF ALL FIELD DEVICES AND
F	SYMBO SURVE	L INDICATED THAT A VIDEO ILLANCE DEVICE IS WALL MOUNTED								SPECIFICATION, SHALL BE REPORTED PRIOR TO CONSTRUCTION. ANY ITEMS
1. #-G IN 2. #-C IN 3. UNO: 4. THE S PROJ 5. PROV	NDICATES NDICATES UNLESS SYSTEM II JECTS ELI /IDE AND	BACK BOX SIZE. CONDUIT SIZE. NOTED OTHERWISE NTEGRATOR SHALL COORDINATE ALL ECTRICAL CONTRACTOR. INSTALL ONE (1) CATEGORY CABLE TO INTRUSIO	BOX AND CONDU	IT SIZE REQU	JIREMENTS PRIOR TO R ORK	OUGH-	IN BY THE		С	CONTRACTOR SHALL BE REPLACED AND/OK REPAIRED, BT THE CONTRACTOR, A NO ADDITIONAL COST TO THE PROJECT OR THE OWNER. CONTRACTOR SHALL REMOVE ANY DEVICES WHERE CONSTRUCTION OCCURS T PREVENT POSSIBLE DAMAGE TO THE DEVICE. REMOVAL OF ANY DEVICES WHICH SUPPORT USER CONNECTION OR OTHER SYSTEMS, SHALL BE COORDINATED WI THE OWNER PRIOR TO REMOVAL AND/OR TAKING OFF LINE. REMOVAL SHALL CONSIST OF BUT NOT BE LIMITED TO THE FOLLOWING DEVICES AND ASSOCIATE SUPPORT INFRASTRUCTURE:
<u> </u>					0 0 1 00					 FIRE ALARM DEVICES INTERCOM DEVICES WIPELESS ACCESS DOINTS
SYMBOL		DESCRIPTION	ELEVATION				NOTES			 4) TELEPHONES 5) VIDEO SUBVEILLANCE CAMERAS
IDP	INTRUSIO PANEL	ON DETECTION SYSTEM CONTROL	+60" AFF	CONT	2) - 1"C TO RACTOR PROVIDED	CO WI	ORDINATE POWER TH EC. NOTE #5			 6) INTRUSION DETECTION DEVICES 7) ACCESS CONTROL DEVICES
KP	INTRUSI	ION DETECTION SYSTEM KEYPAD.	+48" AFF TO TOP	4"X4"	K2 1/8" BACK BOX WITH					8) VIDEO PROJECTION DEVICES 9) VIDEO DISPLAY DEVICES
	CEILING N	MOUNTED MOTION DETECTOR	CEILING	1-G M	UD RING, 1"C	+				ANY DEVICES, NOT BEING REINSTALLED, SHALL BE RETURNED TO THE OWNER.
	WALL MO	OUNTED MOTION DETECTOR	REFERENCE FLOC	DR N/A		+			D	CONTRACTOR SHALL DOCUMENT THE LOCATION AND ANY ID TAG, MAC ADDRESS
	LR: LONG			N/A		+				FROM ITS CURRENT LOCATION. DEVICES THAT ARE TO REMAIN, SHALL BE
<u>GB</u>		MOUNTED GLASS BREAK OR		N/A						CONSTRUCTION, UNLESS NOTED OTHERWISE.
DC	DPDT MA POSITION	GNETIC DOOR CONTACT/DOOR	FLUSH MOUNTED DOOR FRAME	IN N/A		DE			Е	ANY INDIVIDUAL THAT WILL BE REMOVING. RELOCATING, REINSTALLING, AND/OR
SDC		E MOUNT MAGNETIC DOOR	SURFACE MOUNTE	ED N/A		70				TAMPERING WITH ANY EXISTING DEVICES; SHALL BE CERTIFIED BY THE MANUFACTURER OF THE SPECIFIC SYSTEM AND/OR LICENSED AS REQUIRED BY
ODC	OVERHE/	AD DOOR MOUNT MAGNETIC DOOR	SURFACE MOUNTE	ED N/A		+				THE STATE TO PERFORM WORK ON THE SYSTEM. THE INDIVIDUAL SHALL BE A FULL-TIME EMPLOYEE OF THE FIRM CONTRACTED TO CONDUCT SUCH WORK ON
	CONTAC) N/A		+				LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SYSTEM.
	DURES	S PANIC BUTTON	UNDER DESK UND	N/A					F	ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, REINSTALLING, OF
<u>NOTES:</u> 1. #-G IN		BACK BOX SIZE.								TAMPERING WITH IN ANY DEVICES; SHALL BE LICENSED BY THE STATE, AS APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE SYSTEM.
2. #-C IN 3. UNO: 4. REFE 5. PROV	UNLESS RENCE D IDE AND	NOTED OTHERWISE NOTED OTHERWISE IVISION 28 SPECIFICATION FOR ADDIT INSTALL ONE (1) CATEGORY CABLE TO	IONAL INFORMATIO	ON AND REC	QUIREMENTS. ORK				G	ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEMOLISHED, SHALL BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POINT OF ORIGIN. N CABLE SHALL BE ABANDONED IN PLACE
				00.45	00				ы	
FIRE ALARM - 28 46 00								REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REINSTALL THE DEVIC IN THE SAME LOCATION. UNLESS NOTED OTHERWISE.		
SYME Fac	BOL P	DESCRIP FIRE ALARM CONTROL	IION							
						I	REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NOTES AND LEGEND SHEET.			
RPS	مہ مہ ہم	EXISTING FIRE ALARM SYSTEM REMO CONTRACTOR TO FIELD VERIFY.	OTE POWER SUPP	LIES. LOCAT)M AS B	BUILD DRAWINGS.	}	J	TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAGGED AND SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CONTRACTOR SHA COORDINATE WITH THE MANUFACTURED TO NOT YOU THE WARPANITY
NULES:						<u> </u>				SOUNDINALE WITH THE MANUFACTURER TO NOT VOID THE WARRANTY.

	VIDEO SURVEILLANCE LEGEND - 28								
SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/R						
H	WALL/CORNER MOUNT 4-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACH 1-G MUD RING, 1'						
	CEILING MOUNTED 4-SENSOR CAMERA	CEILING							
	2-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACH 1-G MUD RING, 1'						
- K	1-SENSOR CAMERA	REFERENCE FLOOR PLANS	4"X4"X2 1/8" BACH 1-G MUD RING, 1'						
VRS	VIDEO RECORDING SERVER								
#MU	VIDEO SURVEILLANCE MAIN UNIT	ABOVE CEILING							
F	SYMBOL INDICATED THAT A VIDEO SURVEILLANCE DEVICE IS WALL MOUNTED								

	INTRUSION LEGEND - 28 31 00								
SYMBOL	DESCRIPTION	ELEVATION	BACK BOX/RACE						
IDP	INTRUSION DETECTION SYSTEM CONTROL PANEL	+60" AFF	TWO(2) - 1"C TO CONTRACTOR PROVIE BACK BOX						
KP	INTRUSION DETECTION SYSTEM KEYPAD.	+48" AFF TO TOP	4"X4"X2 1/8" BACK BOX 1-G MUD RING, 1"C						
×	CEILING MOUNTED MOTION DETECTOR	CEILING							
\bigotimes	WALL MOUNTED MOTION DETECTOR LR: LONG RANGE	REFERENCE FLOOR PLAN	N/A						
GB	CEILING MOUNTED GLASS BREAK DETECTOR	CEILING	N/A						
Ô	DPDT MAGNETIC DOOR CONTACT/DOOR POSITION SENSOR.	FLUSH MOUNTED IN DOOR FRAME	N/A						
SDC	SURFACE MOUNT MAGNETIC DOOR CONTACT.	SURFACE MOUNTED ON DOOR FRAME	N/A						
ODC	OVERHEAD DOOR MOUNT MAGNETIC DOOR CONTACT.	SURFACE MOUNTED ON DOOR FRAME	N/A						
DB	DURESS PANIC BUTTON	UNDER DESK UNO	N/A						

	FIRE ALARM - 28 46 00					
SYMBOL	DESCRIPTION					
FACP	FIRE ALARM CONTROL					
	FIREALARMANNUNCHATORRANEL					
RPS	EXISTING FIRE ALARM SYSTEM REMOTE POWER SUPPLIES. LOCATIONS DETERMINED CONTRACTOR TO FIELD VERIFY.					
NOTES: MANAMANA MANAMANA						
1. FIRE ALARM SYSTEM IS PERFORMANCE BASED PER SPECIFICATIONS. CONTRACTOR TO REFERENCE ADDITIONAL INFORMATION.						

2. A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBF SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (I PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO SPACE LAYOUT, BUILDING OCCUPANCY, CURRENT NFPA 72, LOCAL AND STATE CODE REQUIREMENTS, DETECTION SYSTEM SPECIFICATIONS.



20 00)					
CEWAY		NOTES				
BOX WITH		NOTE #5				
;						
		NOTE #5				
BOX WITH	ł	NOTE #5				
BOX WITH C	4					
		NOTE #5				
R TO ROU	GH-I	N BY THE				
/AY		NOTES				
ED	COC WIT	ORDINATE POWER TH EC. NOTE #5				
WITH						
	DE\ ACS	VICE PROVIDED BY S CONTRACTOR.				
	L					
E SPECIF	ICAT	IONS FOR				
JBFIELD (S (NICET TO COMF ITS, AND)f fii), sh, ply m the f	RE ALARM ALL PROVIDE VITH THE BUILDING FIRE ALARM AND				

TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHER SYSTEM COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOM NAME AND NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REMOVED FROM CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEPARTMENT PRIOR TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED BY THE OWNER'S VENDER IN ORDER TO PREVENT VOID OF WARRANTY. K

ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AND REMOVE EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MATCH EXISTING.

1

			_
RESPONSIBILITY MA	TRIX	r	
SCOPE ITEM	RES	PONSIB	SIL
OMMUNICATIONS - DIVISION 27	OFOL	CFCI	T
ATEGORY 6/6A STRUCTURED CABLING SYSTEM (SCS)			t
UDIO DISTRIBUTION SYSTEM - SPECIAL SPACE		\checkmark	t
UDIO DISTRIBUTION SYSTEM - INSTRUCTIONAL SPACE	$\overline{\mathbf{V}}$		Î
LAT PANEL DISPLAYS	$\overline{\mathbf{v}}$		t
LAT PANEL DISPLAY MOUNTS	$\overline{\mathbf{V}}$		Î
NTERACTIVE DISPLAYS	$\overline{\mathbf{V}}$		t
NTERACTIVE DISPLAY MOUNTS			t
UILDING INTERCOM/PA, BELL, AND CLOCK SYSTEM		\checkmark	t
→NETWORK SWITCHES	$\overline{\mathbf{A}}$		T
IETWORK EQUIPMENT			-
→ MDF/IDF NETWORK EQUIPMENT	1		T
→ VOIP TELEPHONES	$\overline{\mathbf{V}}$		t
→ WIRELESS ACCESS POINTS	$\overline{\mathbf{V}}$		Î
→ UNINTERRUPTIBLE POWER SUPPLIES (UPS)	$\overline{\mathbf{V}}$		Î
ACEWAY: CONDUIT, BACK BOXES, ETC.		\checkmark	Î
OW VOLTAGE: RACEWAY, SLEEVES		\checkmark	Î
TRUCTURED CABLING: RACEWAY, SLEEVES	$\overline{\mathbf{A}}$		Î
LECTRICAL POWER		\checkmark	Î
IFE SAFETY AND SECURITY - DIVISION 28	OFOI	CFCI	Ī
CCESS CONTROL SYSTEM(ACS)		\checkmark	T
ITRUSION DETECTION SYSTEM		\checkmark	Ī
OOR ACCESS VIDEO INTERCOM SYSTEM		\checkmark	Î
IDEO SURVEILLANCE SYSTEM (VSS)			
→ VSS SERVERS		\checkmark	T
→ VSS CAMERAS		\checkmark	Ī
→ VSS PROGRAMMING		\checkmark	Î
→ VSS CABLING	$\overline{\mathbf{A}}$		Ī
IRE ALARM SMOKE DETECTION WITH VOICE EVACUATION		\checkmark	t
ACEWAY: CONDUIT, BACK BOXES, SLEEVES, ETC.		\checkmark	Î
LECTRICAL POWER		\checkmark	Î
FOI - OWNER FURNISHED AND OWNER INSTALLED FCI - CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED FCI - OWNER FURNISHED AND CONTRACTOR INSTALLED ESPONSIBILITY MATRIX NOTES:			
1. BY DIVISION 26. 2. BY DIVISION 27. 3. BY DIVISION 11			

4. IF SYSTEM REQUIRES NETWORK SWITCH IT SHALL BE OFOI. CONTRACTOR TO C OWNER. 5. CORES AND SLEEVES FOR STRUCTURED CABLING WILL BE OWNER FURNISHED, INSTALLED. NOT TO BE USED BY ANY OTHER TRADE.



LITY OFCI	NOTES				
OFCI					
\rightarrow					
	SEE NOTE 4.				
	SEE NOTE 1.				
	SEE NOTE 1.				
	SEE NOTE 1				
OFCI					
	SEE NOTE 2.				
\square	SEE NOTE 1.				
	SEE NOTE 1.				
COORDINATE WITH					

INAICA CORPORATION ARCHITECTS www.natexarchitects.com 447 Heights Boulevard Houston, TX 77007 Phone: 713-975-9525 Fax: 713-780-7824
Coleman Partners ARCHITECTS cparch.com
3701 Kirby Drive, Suite 830 Houston,TX 77098 tel 832.947.1038 fax 225.214.5365
BRADLEY KALMANS BRADLEY KALMANS BRADLEY KALMANS BRADLEY KALMANS BO219 CENSED CENSED CONALL ENG 02-14-2025
CIVIL ENGINEER BROOKS AND SPARKS, INC. 21020 PARK ROW KATY, TX 77449 tel: 281.578.9595
STRUCTURAL ENGINEER DALLY + ASSOCIATES, INC. 9800 RICHMOND AVE. SUITE 460
HOUSTON, TX 77042 tel: 713.337.8881
HOUSTON, TX 77042 tel: 713.337.8881 MEPT ENGINEER SALAS O'BRIEN 10930 W. SAM HOUSTON PKWY. N SUITE 900 HOUSTON, TX 77064 tel: 281.664.1900
HOUSTON, TX 77042 tel: 713.337.8881 MEPT ENGINEER SALAS O'BRIEN 10930 W. SAM HOUSTON PKWY. N SUITE 900 HOUSTON, TX 77064 tel: 281.664.1900 FOOD SERVICE EQUIPMENT FDP 25317 INTERSTATE 45 THE WOODLANDS, TX 77380 tel: 281.350.2323

tel: 281.486.4040







 $\left(\begin{array}{c} \\ \end{array} \right)$

TECHNOLOGY DEMOLITION FLOOR PLAN - LEVEL 1 - AREA D Scale: 1/8" = 1'-0"



A CONTRACTOR SHALL PROVIDE NEW CELLING TILES IN INSTANCE COORDINATE WITH ARCHITECT ON CORRECT ANADEAC DIMENSION COORDINATE WITH ARCHITECT ON CORRECT ANADEAC DIMENSION CONTRACTOR SHALL HAVE FACH LOW VOLTAGE SYSTEM SHALL INCLUE UNITED TO: THER ARAM INSTRUCTURE HARLING INSTRUCTURE HARLING I	F	T	ECH DEMO PLAN GENERAL NO
B CONTRACTOR SHALL HAVE CALLOW YOUTAGE SYSTEM TEST UMITED TO: UMITED T		A	CONTRACTOR SHALL PROVIDE NEW CEILING TILES IN INSTANCE DEVICES ARE REMOVED, REPLACED OR ADDED. CONTRACTOR S COORDINATE WITH ARCHITECT ON CORRECT MANUFACTURER / TO REMOVAL OF EXISTING TILE.
ADDITIONAL COST TO THE PROJECT OR THE OWNER CONTRACTOR SHALL REMOVE ANY DEVICES WHERE CONSTRU PREVENT POSSIBLE DAMAGE TO THE DEVICE. REMOVAL OF AN SUPPORT USES CONNECTION OF OTHER SYSTEMS. SHALL BE: THE STATES CONNECTION OF OTHER SYSTEMS. SHALL BE: THE ALARM DEVICES 1) FIRE ALARM DEVICES 1) FIRE ALARM DEVICES 1) WIRELESS ACCESS POINTS 4) TELEPHONES 6) WIDEO SURVEILLANCE CAMERAS 6) WIDEO SURVEILLANCE CAMERAS 6) WIDEO SURVEILLANCE CAMERAS 7) ACCESS CONTROLLENCE 20 WIRELESS ACCESS POINTS 4) TELEPHONES 7) ACCESS CONTROLLENCES 7) ACCESS CONTROLLENCES 7) ACCESS CONTROLLENCES 7) ACCESS CONTROLLENCES 7) WIDEO DESIGNATION DEVICES 7) WIDEO DESIGNATION DEVICES 7) ACCESS CONTROLLENCES 7) WIDEO DESIGNATION DEVICES 7) ACCESS CONTROLLENCES 7) WIDEO DESIGNATION DEVICES 7) ACCESS CONTROLLENCES 7) ANY IDVIDIAL THAT WILL BE REMOVING RELOCATING REMOVE 7) ACCESS CONTROLLENCES 7) ANY DEVICES SHALL BE UCENSEDE ON THE 7) ANY DEVICES ACTION ACCESS AND ACCESS CONTROL TO THE CABLES PC 7) ACCESS CONTROLLENCES 7) ANY IDVIDIAL/FIRM THAT WILL BE REMOVING, RELOCATING 7) ACCESS ACCESS CONTROLLENCES 7) ANY IDVIDIAL/FIRM THAT WILL ALSO HOULD AVERTION 7) ACCESS ACCESS CONTROLLENCESS AND ACCESS 7) ANY IDVIDIAL/FIRM THAT WILL ALSO HOULD AVERTION 7) ACCESS ACCESS CONT		В	CONTRACTOR SHALL HAVE EACH LOW VOLTAGE SYSTEM TESTE COMMENCEMENT OF CONSTRUCTION. SYSTEMS SHALL INCLUDE LIMITED TO: 1) FIRE ALARM 2) INTERCOM 3) STRUCTURED CABLING 4) INTRUSION DETECTION 5) ACCESS CONTROL 6) AUDIO VIDEO 7) VIDEO SURVEILLANCE TESTING HALL INCLUDE THE FUNCTIONALITY OF ALL FIELD DEV EQUIPMENT. ANY FAILURES OR ITEMS FOUND NOT TO BE FUNCT SPECIFICATION, SHALL BE REPORTED PRIOR TO CONSTRUCTIO FOUND TO BE IMPROPERLY OR NON-FUNCTIONING UPON THE C THE PROJECT, SHALL BE REPLACED AND/OR REPAIRED, BY THE
5) VIDEO SURVEILLANCE CAMERAS 6) INTRUSION DETECTION DEVICES 7) ACCESS CONTROL DEVICES 8) VIDEO PROLECTION DEVICES 9) FED-15 9) ALL CABLIN		С	NO ADDITIONAL COST TO THE PROJECT OR THE OWNER. CONTRACTOR SHALL REMOVE ANY DEVICES WHERE CONSTRUC PREVENT POSSIBLE DAMAGE TO THE DEVICE. REMOVAL OF ANY SUPPORT USER CONNECTION OR OTHER SYSTEMS, SHALL BE C THE OWNER PRIOR TO REMOVAL AND/OR TAKING OFF LINE. REM CONSIST OF BUT NOT BE LIMITED TO THE FOLLOWING DEVICES SUPPORT INFRASTRUCTURE: 1) FIRE ALARM DEVICES 2) INTERCOM DEVICES 3) WIRELESS ACCESS POINTS 4) TELEPHONES
D CONTRACTOR SHALL DOCUMENT THE LOCATION AND ANY ID T. IP ADDRESS, OR BAR CODE OF ANY EXISTING DEVICES THAT ARE TO REMAIN REINSTALLED IN THE EXACT LOCATION THAT THEY RESIDE IN F. CONSTRUCTION, UNLESS NOTED OTHERWISE. E ANY INDIVIDUAL THAT WILL BE REMOVING, RELOCATING, REINS THE TO PERFORM WORK ON THE SYSTEM. THE INDIVID FULLTIME EMPLOYEE OF THE SYSTEM THE INDIVID FULLTIME EMPLOYEE OF THE SYSTEM AND/OR LICENSED THE STATE TO PERFORM WORK ON THE SYSTEM. THE INDIVID FULLTIME EMPLOYEE OF THE FINA CONTRACTOR TO CONDUCT THE PROJECT AND THAT FIRM SHALL ALSO HOLD ANY CERTIFIC LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SY F ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, THE PROJECT AND THAT FIRM SHALL ALSO HOLD ANY CERTIFIC LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SY F ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, TAMPERING WITH IN ANY DEVICES, SHALL BE LICENSED BY THE APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE APPLICABLE. AND CERTIFIED BY THE MANUFACTURER OF THE SECOND CABLE SHALL BE REMOVED ROOM THE EXISTING TO REMAIN, CON REMOVED REMOVED ROOM THE DEVICES SHOWN ARE EXISTING TO REMAIN, CON REMOVED EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN, CON REMOVE EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN, CON REMOVED EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN, CON REMOVE EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN, CON REMOVED EXISTING DEVICES SHOWN ARE EXISTING TO NOT THE CABLE SO CONTRUCTION, AND REMOVE EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN, CON REMOVE EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN, CON REMOVE EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN THE SAME LOCATION, UNLESS NOTED OTHERWISE. </td <td></td> <td></td> <td> 5) VIDEO SURVEILLANCE CAMERAS 6) INTRUSION DETECTION DEVICES 7) ACCESS CONTROL DEVICES 8) VIDEO PROJECTION DEVICES 9) VIDEO DISPLAY DEVICES ANY DEVICES, NOT BEING REINSTALLED, SHALL BE RETURNED TO </td>			 5) VIDEO SURVEILLANCE CAMERAS 6) INTRUSION DETECTION DEVICES 7) ACCESS CONTROL DEVICES 8) VIDEO PROJECTION DEVICES 9) VIDEO DISPLAY DEVICES ANY DEVICES, NOT BEING REINSTALLED, SHALL BE RETURNED TO
E ANY INDIVIDUAL THAT WILL BE REMOVING. RELOCATING, REINS TAMPERING WITH ANY EXISTING DEVICES: SHALL BE CERTIFIE MANUFACTURER OF THE SPECIFIC SYSTEM AND/OR LICENSED THE STATE TO PERFORM WORK ON THE SYSTEM. THE INDIVID FULL TIME EMPLOYEE OF THE FIRM CONTRACTED TO CONDUC THE PROJECT AND THAT FIRM SHALL ALSO HOLD ANY CERTIFIC LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SY F ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, TAMPERING WITH IN ANY DEVICES; SHALL BE LICENSED BY THE APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES PC CABLE SHALL BE ABANDONED IN PLACE. II ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEN BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES PC CABLE SHALL BE ABANDONED IN PLACE. II ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CON REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REIN IN THE SAME LOCATION, UNLESS NOTED OTHERWISE. II REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NO SHEET. J TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAG SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CO COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WITH TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHE COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROO NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REP K K CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEF TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED VENDER IN ORDER TO PREVENT VOID OF WARRANTY. L ALL DEMO DEVICES WITH D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALLT OM		D	CONTRACTOR SHALL DOCUMENT THE LOCATION AND ANY ID TA IP ADDRESS, OR BAR CODE OF ANY EXISTING DEVICE THAT IS TO FROM ITS CURRENT LOCATION. DEVICES THAT ARE TO REMAIN, REINSTALLED IN THE EXACT LOCATION THAT THEY RESIDE IN PI CONSTRUCTION, UNLESS NOTED OTHERWISE.
F ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, TAMPERING WITH IN ANY DEVICES; SHALL BE LICENSED BY THE APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE SPECTABLE, AND CERTIFIED BY THE MANUFACTURER OF THE SPECTABLE SHALL BE ABANDONED IN PLACE. G ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEM BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POR CABLE SHALL BE ABANDONED IN PLACE. H ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CON REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REIM IN THE SAME LOCATION, UNLESS NOTED OTHERWISE. I REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NO SHEET. J TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAG SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CO COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WAY TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHE COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOM NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REM K CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEFT TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED IVENDER IN ORDER TO PREVENT VOID OF WARRANTY. L ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MENTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MENTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MENTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MENTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MENTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MENTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MENTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MENTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MENTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MENTING WIRING DEVICE BACK TO SWITCH.	FSD-1	E	ANY INDIVIDUAL THAT WILL BE REMOVING. RELOCATING, REINS TAMPERING WITH ANY EXISTING DEVICES; SHALL BE CERTIFIED MANUFACTURER OF THE SPECIFIC SYSTEM AND/OR LICENSED A THE STATE TO PERFORM WORK ON THE SYSTEM. THE INDIVIDU, FULL-TIME EMPLOYEE OF THE FIRM CONTRACTED TO CONDUCT THE PROJECT AND THAT FIRM SHALL ALSO HOLD ANY CERTIFIC. LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SYS
G ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEM BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POR CABLE SHALL BE ABANDONED IN PLACE. H ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CON REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REIN IN THE SAME LOCATION, UNLESS NOTED OTHERWISE. I REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NO SHEET. J TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAG SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CO COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WAY TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHE COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOD NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REM K CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEF TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED VENDER IN ORDER TO PREVENT VOID OF WARRANTY. L ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MENTING DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICES ARE TO SWITCH. PATCH WALL TO MENTING DEVICES ARE TO SWITCH. PATCH WALL TO MENTING DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICES ARE TO SWITCH. PATCH WALL TO MENTING WIRING DEVICES ARE TO SWITCH. PATCH WALL TO MENTING WIRING DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICES ARE TO SWITCH. PATCH WALL TO MENTING WIRING DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICES MITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DE		F	ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, R TAMPERING WITH IN ANY DEVICES; SHALL BE LICENSED BY THE APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE S
H ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CON REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REIN IN THE SAME LOCATION, UNLESS NOTED OTHERWISE. I REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NO SHEET. J TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAG SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CO COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WA TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHE COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOI NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REN K K CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEF TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED I VENDER IN ORDER TO PREVENT VOID OF WARRANTY. L ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO M		G	ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEM BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POI CABLE SHALL BE ABANDONED IN PLACE.
I REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NO SHEET. J TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAG SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CO COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WA TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHE COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOI NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REM K CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEF TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED I VENDER IN ORDER TO PREVENT VOID OF WARRANTY. L ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO M		н	ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CONT REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REIN IN THE SAME LOCATION, UNLESS NOTED OTHERWISE.
J TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAG SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CO COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WA TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHE COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOD NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REM K CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEF TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED I VENDER IN ORDER TO PREVENT VOID OF WARRANTY. L ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO M		I	REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NOT SHEET.
Image: Construction of the components of the components shall be tagged by contractor with room number and be reinstalled in the same room it was remained by contractor with the construction on which devices are to be removed in the construction on which devices are to be removed in the construction of the constru		J	TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAGG SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CON COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WAF
K CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEF TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED I VENDER IN ORDER TO PREVENT VOID OF WARRANTY. L ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO M			TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHEF COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOM NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REM
L ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT A EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO M		к	CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEPA TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED B VENDER IN ORDER TO PREVENT VOID OF WARRANTY.
		L	ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AN EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MA



	1
O'Brien	
281-664-1900 Pkwy North, Suite 900	
00209-00	
	A 44
DTES	H Ph Fa
ES WHERE CEILING SHALL AND MODEL PRIOR	
ED PRIOR TO THE	
	C
	37(I tel 832.9
COMPLETION OF E CONTRACTOR, AT	CONST
CTION OCCURS TO Y DEVICES WHICH	مم الم تحقي *
COORDINATED WITH MOVAL SHALL S AND ASSOCIATED	E E
	PO
	BROO
TO THE OWNER.	
AG, MAC ADDRESS, TO BE REMOVED	STR DALL
, SHALL BE RIOR TO	98 H
TALLING, AND/OR DBY THE	l
IAL SHALL BE A T SUCH WORK ON CATIONS AND/OR	10930 W.
STEM. REINSTALLING, OR	FOOD
SYSTEM.	25 THE V
NOLISHED, SHALL	LAN
TRACTOR TO ISTALL THE DEVICE	L/ 170
TES AND LEGENDS	H
GED AND NTRACTOR SHALL	
R SYSTEM M NAME AND	
	S
	NO
ATCH EXISTING.	'AT
	NOV
	SEN
	IS I
	≥ Щ
	AN
	יור
	SF
	В Н
	LΜ
	4 S
	202
	Project N
	Date [.]









_____ of _____

5 3

:odesk Docs://23072_CFSID_Phase_6_r22/CFISD-SPILLANE MS_MEPT_R22.r





T	ECH DEMO PLAN GENERAL NO
A	CONTRACTOR SHALL PROVIDE NEW CEILING TILES IN INSTANCE DEVICES ARE REMOVED, REPLACED OR ADDED. CONTRACTOR S COORDINATE WITH ARCHITECT ON CORRECT MANUFACTURER A TO REMOVAL OF EXISTING TILE.
В	 CONTRACTOR SHALL HAVE EACH LOW VOLTAGE SYSTEM TESTE COMMENCEMENT OF CONSTRUCTION. SYSTEMS SHALL INCLUDE LIMITED TO: 1) FIRE ALARM 2) INTERCOM 3) STRUCTURED CABLING 4) INTRUSION DETECTION 5) ACCESS CONTROL 6) AUDIO VIDEO 7) VIDEO SURVEILLANCE TESTING SHALL INCLUDE THE FUNCTIONALITY OF ALL FIELD DEV EQUIPMENT. ANY FAILURES OR ITEMS FOUND NOT TO BE FUNCT SPECIFICATION, SHALL BE REPORTED PRIOR TO CONSTRUCTION FOUND TO BE IMPROPERLY OR NON-FUNCTIONING UPON THE CO THE PROJECT, SHALL BE REPLACED AND/OR REPAIRED, BY THE NO ADDITIONAL COST TO THE PROJECT OR THE OWNER.
С	CONTRACTOR SHALL REMOVE ANY DEVICES WHERE CONSTRUCT PREVENT POSSIBLE DAMAGE TO THE DEVICE. REMOVAL OF ANY SUPPORT USER CONNECTION OR OTHER SYSTEMS, SHALL BE C THE OWNER PRIOR TO REMOVAL AND/OR TAKING OFF LINE. REM CONSIST OF BUT NOT BE LIMITED TO THE FOLLOWING DEVICES / SUPPORT INFRASTRUCTURE: 1) FIRE ALARM DEVICES 2) INTERCOM DEVICES 3) WIRELESS ACCESS POINTS 4) TELEPHONES 5) VIDEO SURVEILLANCE CAMERAS 6) INTRUSION DETECTION DEVICES 7) ACCESS CONTROL DEVICES 8) VIDEO PROJECTION DEVICES 9) VIDEO DISPLAY DEVICES ANY DEVICES, NOT BEING REINSTALLED, SHALL BE RETURNED T
D	CONTRACTOR SHALL DOCUMENT THE LOCATION AND ANY ID TAU IP ADDRESS, OR BAR CODE OF ANY EXISTING DEVICE THAT IS TO FROM ITS CURRENT LOCATION. DEVICES THAT ARE TO REMAIN, REINSTALLED IN THE EXACT LOCATION THAT THEY RESIDE IN PR CONSTRUCTION, UNLESS NOTED OTHERWISE.
E	ANY INDIVIDUAL THAT WILL BE REMOVING. RELOCATING, REINST TAMPERING WITH ANY EXISTING DEVICES; SHALL BE CERTIFIED MANUFACTURER OF THE SPECIFIC SYSTEM AND/OR LICENSED A THE STATE TO PERFORM WORK ON THE SYSTEM. THE INDIVIDUA FULL-TIME EMPLOYEE OF THE FIRM CONTRACTED TO CONDUCT THE PROJECT AND THAT FIRM SHALL ALSO HOLD ANY CERTIFICA LICENSES REQUIRED TO CONDUCT WORK ON THE SPECIFIC SYS
F	ANY INDIVIDUAL/FIRM THAT WILL BE REMOVING, RELOCATING, R TAMPERING WITH IN ANY DEVICES; SHALL BE LICENSED BY THE APPLICABLE, AND CERTIFIED BY THE MANUFACTURER OF THE S
G	ALL CABLING ASSOCIATED WITH DEVICES THAT ARE TO BE DEMO BE REMOVED FROM THE DEVICE LOCATION TO THE CABLES POIL CABLE SHALL BE ABANDONED IN PLACE.
Н	ALL EXISTING DEVICES SHOWN ARE EXISTING TO REMAIN. CONT REMOVE EXISTING DEVICES DURING CONSTRUCTION AND REINS IN THE SAME LOCATION, UNLESS NOTED OTHERWISE.
I	REFERENCE EXISTING DEVICE SUBSCRIPT LEGEND ON THE NOT SHEET.
J	TOPCAT LIGHTSPEED LOCAL SOUND SPEAKERS SHALL BE BAGG SUSPENDED IN THE CEILING DURING CONSTRUCTION. THE CON COORDINATE WITH THE MANUFACTURER TO NOT VOID THE WAR TOPCAT LIGHTSPEED SPEAKER, BASE STATION AND ANY OTHER COMPONENTS SHALL BE TAGGED BY CONTRACTOR WITH ROOM NUMBER AND BE REINSTALLED IN THE SAME ROOM IT WAS REMO
К	CONTRACTOR TO COORDINATE WITH CFISD TECHNOLOGY DEPA TO CONSTRUCTION ON WHICH DEVICES ARE TO BE REMOVED BY VENDER IN ORDER TO PREVENT VOID OF WARRANTY.
L	ALL DEMO DEVICES WITH 'D' SUBSCRIPT SHALL DISCONNECT AN EXISTING WIRING DEVICE BACK TO SWITCH. PATCH WALL TO MA



281-664-1	900
Pkwy North, Suite 900	
1 00209-00	
	4.
DTES CES WHERE CEILING	F
AND MODEL PRIOR	
IED PRIOR TO THE DE BUT NOT BE	
	С
EVICES AND	3
ON. ANY ITEMS COMPLETION OF E CONTRACTOR, AT	CONS
JCTION OCCURS TO	ha
COORDINATED WITH EMOVAL SHALL S AND ASSOCIATED	
	Ň
	BRO
TO THE OWNER.	
AG, MAC ADDRESS, TO BE REMOVED	STI DALI
PRIOR TO	
STALLING, AND/OR D BY THE AS REQUIRED BY UAL SHALL BE A	40020 M
CT SUCH WORK ON CATIONS AND/OR YSTEM.	10930 V
REINSTALLING, OR E STATE, AS SYSTEM.	FOO
Molished, Shall Dint of Origin. No	2 THE
NTRACTOR TO NSTALL THE DEVICE	LA I I 17
DTES AND LEGENDS	
GED AND NTRACTOR SHALL	
ARRANTY. ER SYSTEM M NAME AND	
MOVED FROM	S
ND REMOVE	
IATCH EXISTING.	VAT
	ÔN
	RE
	SM
	Ш Z
	LA LA
	SPII
	<u>න්</u>
	Ë
	SN
	024
	7
	-
	Project
	Date:















TECHNOLOGY DEMOLITION FLOOR PLAN - LEVEL 2 - AREA B Scale: 1/8" = 1'-0"























1

salasobrien.com





LANDESIGN GROUP 17041 EL CAMINO REAL SUITE 204 HOUSTON, TX 77058 tel: 281.486.4040











_____ of _____



TECHNOLOGY FLOOR PLAN - LEVEL 1 - AREA D Scale: 1/8" = 1'-0"











	FIRE ALARM	TEC
A	FIRE ALARM SYSTEM IS A PERFORMANCE BASED PER SPECIFICATIONS 28 46 00. CONTRACTOR TO REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.	A
В	A LICENSED FIRE ALARM PLANNING SUPERINTENDENT CERTIFIED TO A MINIMUM LEVEL 3, IN THE SUBFIELD OF FIRE ALARM SYSTEMS THROUGH THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET). SHALL	В
	PROVIDE PLANS AND CALCULATIONS FOR A MANUAL AND AUTOMATIC FIRE DETECTION AND ALARM SYSTEM TO COMPLY WITH THE BUILDING SPACE LAYOUT, BUILDING OCCUPANCY, CURRENT NFPA 72, LOCAL AND STATE CODE	С
	REQUIREMENTS, AND THE FIRE ALARM AND DETECTION SYSTEM SPECIFICATIONS.	D
С	REFERENCE MECHANICAL PLANS FOR AHU LOCATIONS.	





TECHNOLOGY PLAN GENERAL NOTES COORDINATE ALL FINAL MOUNTING HEIGHTS, FOR WALL MOUNTED DEVICES, PRIOR TO ROUGH-IN. COORDINATE WITH ARCHITECT, OWNER AND ENGINEER. B COORDINATE ALL CEILING DEVICE LOCATIONS WITH ARCHITECTURAL DRAWINGS AND INTERIOR DESIGN CONSULTANT(IF APPLICABLE) PRIOR TO ROUGH-IN. REFERENCE TECHNOLOGY SITE PLAN, COMPOSITE PLANS, NOTES & LEGENDS AND DETAILS FOR ADDITIONAL INFORMATION AND DEVICE/OUTLET LOCATIONS. CONTRACTOR TO COORDINATE INTERCOM SPEAKER MOUNTING TYPES WITH ARCHITECTURAL CEILING PLANS PRIOR TO FINAL SPEAKER SELECTION. COORDINATE WITH ENGINEER ON ANY DISCREPANCIES. CONTRACTOR TO COORDINATE ALL DROP LOCATIONS WITH FURNITURE. COORDINATE WITH ARCHITECT AND OWNER FOR MORE INFORMATION. ALL EXISTING LOCKDOWN BUTTONS THAT ARE BEING REUSED SHALL HAVE EXISTING WIRING DEMOLISHED AND REPLACED BY CONTRACTOR.

E

F

G

Н

NEW DATA CABLING IN EXISTING CLASSROOMS SHALL REUSE EXISTING DATA CABLING RACEWAY AND BACKBOXES. CONTRACTOR TO PROVIDE AND INSTALL NEW FACEPLATES.

DATA CABLING TO MECHANICAL ROOMS SHALL BE REPLACED ONE TO ONE. CONTRACTOR TO REUSE EXISTING RACEWAY AND BACKBOXES. PROVIDE AND INSTALL NEW FACEPLATES.















