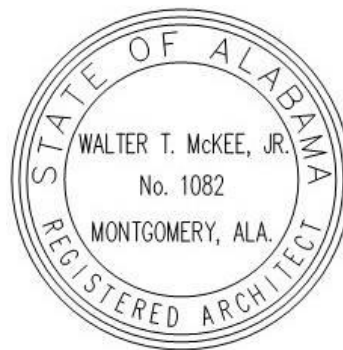


**Addendum No. 1**  
**Date: June 16, 2022**



Project:

**Renovations to the Clay County  
Career Academy for the  
Clay County Board of Education  
Ashland, Alabama**

**MCKEE PROJECT NO. 21.239**  
**ALABAMA DIVISION OF CONSTRUCTION MANAGEMENT NO. 2022268**

The following changes and/or substitutions to the plans and specifications are hereby made a part of same and are incorporated in full force as part of the contract.

Bidders shall acknowledge receipt of this Addendum in writing on his Proposal Form.

**A1.1 GENERAL MODIFICATIONS:**

- A. Refer to the **Advertisement for Bids**, **Change** as follows:
1. The sealed proposal as described above shall be received by Jared Wesley, Superintendent, at the Clay County Board of Education, 62 Court Square, Ashland, Alabama 36251, **until 2:00 PM, Central Time Thursday, June 23, 2022**, then opened and read aloud.

**A1.2 SPECIFICATION MODIFICATIONS:**

- A. Refer to attached **Bid Bond (DCM Form C-4 August 2021) (Revised 6.16.22)**, herein.
- B. Refer to attached **Section 09301, Porcelain Tile**, herein.

**A1.3 DRAWING MODIFICATIONS:**

- A. Sheets **E0.1, E1.1, E1.2, E2.1, E3.1, E3.3, E5.2 and E7.1, all REVISED 6.8.22**, herein.
- B. Attached **Detail of "New CMU Lintel In Existing CMU Wall Detail"**, herein.

**A1.4 CLARIFICATIONS & RESPONSES:**

- A. See the following responses to RFI questions received from Contractor's

**Question 1:** Please provide a better detailed demolition plan that truly reflects the demolition slope. There re items seen at the pre-bid meeting that will need to be removed that are not shown on the plans (wall shelving, storage racks, cages).

**Answer 1:** Demolition as detailed in drawings and specifications in order to renovate, provide and install new work as required by contract documents.

**Question 2:** Sheet A8.2 (Finish Schedule) calls for new LVT Flooring. There is no note on A1.1 that the existing flooring is to be removed. Is the existing flooring to be removed.

**Answer 2:** Yes, existing flooring is to be removed.

**Question 3:** Has an asbestos study been performed? Please provide a certification that this is a clean building in areas of demolition.

**Answer 3:** No asbestos tile existing.

**Question 4:** Rooms 125B and 125C have vault doors not noted on plans. Is there any work at these locations.

**Answer 4:** Lights – See Ceiling Plan.

**Question 5:** Most of the existing hollow metal doors have chipped and flaking paint. There is no mention of any work on these doors. What is to be done?

**Answer 5:** Prep/Paint all previously painted surfaces.

**Question 6:** This project appears to receive all new ACT & grid. There is no mention of this in the demo notes.

**Answer 6:** Remove existing ceilings where new ceilings are indicated.

**Question 7:** There appeared to be a leak/rainwater in the welding lab. Will this be addressed.

**Answer 7:** Not within the scope of the contract.

**Question 8:** Drawing A8.2 Finish Schedule for Room 128 Accessible Toilet has “PT” on the floor and west wall. There is not a specification for PT listed in the specification manual. What elevation does the PT on the west wall need to go?

**Answer 8:** Refer to Section 09301 Porcelain Tile, herein. PT on wet wall shall be ceiling ceiling height.

**Question 9:** Doors that are to be cut into and/or patched back into masonry openings, we need more structural detail for infilling the openings and a detail for installing new openings with lintel and reinforcement requirements.

**Answer 9:** See attached “New CMU Lintel In Existing CMU Wall Detail” included in this addendum.

**Question 10:** Where infill and new openings are to be installed, how will the glazed CMU block on the bottom coarse be addressed with the ability to match not existing.

**Answer 10:** Contractor is to carefully demo as detailed for new door opening, salvage structural glazed tile with cove base for re-use at new CMU jambs.

**Question 11:** Existing panels are not grounded but existing plugs appear to have grounding wire. What is required?

**Answer 11:** Refer to electrical drawings.

**Question 12:** Room 134A Spare is an old kitchen, (cabinetry, fire hood, hard tile flooring, etc.). The plans do not indicate to demo anything in this room. Will all of this be in the scope of the contractor to remove all the old fire suppression system and hood out of the kitchen area? Hard tile walls? Finish Schedule states “CMUP”.

**Answer 12:** No work required.

**Question 13:** Room 101 Reception, currently has a sheetrock partition across the room that is not shown on the floor plan. Does this wall need to be removed?

**Answer 13:** Demo the existing partition wall in its entirety.

**Question 14:** The plans and specifications does not call for new door hardware on existing doors throughout the facility. The current hardware is covered with old paint, will it be the responsibility of the contractor to remove any of the old paint from existing door hardware?

**Answer 14:** The contractor is not required to remove paint from existing hardware.

**Question 15:** Plans do not indicate any painting on the exterior of the building. Will painting of exterior doors and window panels be in the scope of this contract?

**Answer 15:** None required

**Question 16:** Room 113 Cosmetology where walls D3 are shown to be removed is currently an existing shower with recessed floors and floor drains recessed. Will it be required to remove floor drains and demo recessed floor system out and re-pour the floor back to finish floor?

**Answer 16:** Yes.

**Question 17:** Rooms 125B and 125C is currently some form of vault with vault doors. Will the old vault doors need to be removed and new doors installed in these areas?

**Answer 17:** Existing vault doors are to remain, prep and paint as required.

**Question 18:** To what degree of wall prep will be required and expected on existing walls prior to painting? During walk through several anchors and holes were noticed in existing walls.

**Answer 18:** Clean, prep and paint to deliver a finished product to Owner.

**Question 19:** Room 118 Aviation Classroom currently shows two doors adjacent to each other entering Corridor 120. Will both of these door openings remain or will one door need to be filled in?

**Answer 19:** Both doors are to remain.

**Question 20:** RCP for Rooms 133 and 132 indicated ceiling heights of 12'. The existing ceilings are at approximately 18', will hard ceiling be required to frame in?

**Answer 20:** Clarify question.

**Question 21:** What will soffit framing for Open Meeting Room 129 elevation be? Lay in ceiling will be at 12'.

**Answer 21:** 11' 8"

**Question 22:** A2.1 Reflected Ceiling Plan, Room 113 shows acoustical ceiling but under the room number it as [MGBP], which is moisture resistant gyp board. Which is correct?

**Answer 22:** Room 113 ceiling to be 2'x2' vinyl clad lay-in acoustical ceiling with aluminum grid.

**Question 23:** Please clarify on Sheet A2.1, Reflected Ceiling Plan exactly what is to be “exposed painted”?

**Answer 23:** There are no exposed areas to be painted.

B. See the following clarifications as follows:

1. Bid Bond shall be 5% of Bid Price with No Limit. Refer to attached Bid Bond (DCM Form C-4 August 2021) (Revised 6.16.22), included in this addendum. **NOTE: The Bid Bond in the Required Appalachian Regional Commission (ARC) Requirements MUST ALSO be filled out and included in the Contractors Sealed Bid Proposal.**
2. Owner shall demo existing ceilings tile, grids and lights.
3. All steel cages, metal shelving, etc. in rooms 131 and 113 shall be removed by Contractor.
4. In room 131 Contractor to demo plywood from walls, all walls to be patched, prepped and painted.
5. Room 130A expanded metal shelving is to be removed by Owner.
6. Contractor is to provide new plate covers for all existing outlets and switches.

**END OF ADDENDUM**



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## Renovations to the Clay County Career Academy for the Clay County Board of Education Ashland, Alabama

**MCKEE PROJECT NO. 21.239**  
**ARC PROJECT NO. ARC-AL-20505-2021**

### **BIDDING REQUIREMENTS**

- Advertisement For Bids
- Request For Information (McKee Form)
- Prior Approval/Substitution Request Form (McKee Form)
- Proposal Form (DCM Form C-3, August 2021)
- Accounting of Sales Tax (DCM Form C-3A, August 2021), Attachment to DCM Form C-3
- Form Of Bid Bond (DCM Form C-4, August 2021)
- Instructions To Bidders (DCM Form C-2, August 2021)
- Special Instructions To Bidders (McKee Form July 2020)
- Davis Bacon Act

### **CONTRACT FORMS**

- Construction Contract (DCM Form C-5, August 2021)
- State of Alabama Department of Finance, Construction Management Division - Administrative Code 355-16-1 Collection of User Fees
- State of Alabama Department of Finance, Real Property Management, Division of Construction Management Permit Fee & Permit Re-Inspection Fee Calculation Worksheet (Revised August 2021)
- State Of Alabama Department of Revenue "Notice" regarding Tax Guidance for Contractors, Subcontractors and Alabama Governmental Entities Regarding Construction related contracts including Application for Sales and Use Tax Certificate of Exemption Form (Form ST:EXC-01 dated 8/18).
- State of Alabama Disclosure Statement Form, Required by Article 3B of Title 41, Code of Alabama 1975 (Revised 09/2013) with Information and Instructions regarding Relationships Between Contractor/Grantees and Public Officials/Employees.
- State of Alabama E-Verify Memorandum of Understanding Instructions (Revised August 2021) *with* ABC Bulletin (May 29, 2012) *and* Revised Alabama Immigration Law Guidance for School Boards (Revised May 2012).
- Act 2009-657 Requiring Certification Of Fire Alarm Contractors (ABC Memorandum January 19, 2021)
- State Of Alabama Department Of Insurance – Application For State Fire Marshal's Certified Fire Alarm Contractor Permit

- Performance Bond (DCM Form C-6, August 2021)
- Payment Bond (ABC Form C-7, August 2021)

## **GENERAL CONDITIONS**

- General Conditions of the Contract (DCM Form C-8, August 2021)
- Instructions for Contractor's Insurance Company (Article 37 of DCM Form C-8, August 2021)
- Supplement to General Conditions of the Contract (McKee Form August 2020)
- Application and Certificate for Payment (DCM Form C-10, Revised October 2021)
- Schedule Of Values, (DCM Form C-10SOV, Revised October 2021) Attachment to DCM Form C-10
- Inventory Of Stored Materials, (DCM Form C-10SM, Revised October 2021) Attachment to DCM Form C-10
- Pre-Construction Conference Checklist (DCM Form B-8, November 2021)
- Progress Schedule and Report (DCM Form C-11, August 2021)
- Project Data Form (DCM Form B-9, August 2021)
- Statement Of Field Observations (DCM Form B-10, August 2021)
- Change Order Checklist, (DCM Form B-12, August 2021) For Use With DCM Form C-12
- Contract Change Order (DCM Form C-12 (fully locally-funded K-12 Schools), August 2021)
- Change Order Justification (DCM Form B-11, August 2021) Attachment to DCM Form C-12
- Final Payment Checklist (DCM Form B-13, August 2021)
- Certificate of Substantial Completion (DCM Form C-13, August 2021)
- Form of Advertisement for Completion (DCM Form C-14, August 2021)
- Contractor's Affidavit of Payment of Debts and Claims (DCM Form C-18, August 2021)
- Contractor's Affidavit of Release of Liens (DCM Form C-19, August 2021)
- Consent of Surety to Final Payment (DCM Form C-20, August 2021)
- Detail Of Project Sign (DCM Form C-15, August 2021)
- Detail Of Plaque (ABC Form C-16, August 2001)

## **THE APPALACHIAN REGIONAL COMMISSION (ARC) REQUIREMENTS**

- Bid Bond Form (ARC Form)
- Certificate of Bidder Regarding Equal Employment Opportunity (ARC Form)
- Certification of Bidder Regarding Segregated Facilities (ARC Form)
- Certification of Proposed Subcontractor Regarding Equal Employment Opportunity (ARC Form)
- Conditions of Contract (ARC Form)
- Davis-Bacon Wage Rates
- Certificate of Owner's Attorney
- Notice of Start of Construction

## **TECHNICAL SPECIFICATIONS**

### **DIVISION 01      GENERAL REQUIREMENTS**

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01250	Contract Modification Procedures
01290	Payment Procedures
01320	Construction Progress Documentation
01322	Photographic Documentation
01330	Submittal Requirements
01500	Temporary Facilities and Controls
01600	Product Requirements
01700	Execution Requirements
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01781	Project Record Documents
01782	Operation and Maintenance Data
01820	Demonstration and Training

### **DIVISION 02      SITE WORK**

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02810	Sodding and Topsoil

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05540	Metal Studs

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### **DIVISION 07      MOISTURE PROTECTION**

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07220	Fire/Smoke Stop Insulation
07900	Joint Sealers

**DIVISION 08      DOORS, WINDOWS AND GLASS**

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08211	Wood Doors
08410	Aluminum Storefronts
08700	Finish Hardware
08800	Glazing

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09301	Porcelain Tile
09510	Acoustical Ceilings
09650	Rubber Base
09651	Luxury Vinyl Tile (LVT)
09900	Painting

**DIVISION 10      SPECIALTIES**

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10410	Identifying Devices
10440	Fire Extinguishers, Cabinets and Accessories
10800	Toilet Accessories

**DIVISION 11 – 14 [NOT APPLICABLE]****DIVISION 15      MECHANICAL**

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15050	Attachment “A”
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15051	Gas Piping – Welding
15052	Common Work Results for Plumbing
15057	Common Motor Requirements for Plumbing Equipment
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15077	Identification for HVAC Piping and Equipment
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15140	Domestic Water Piping
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15195	Facility Natural Gas Piping
15195	Attachment "A"
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15251	General Service Packaged Air Compressors, Vacuum, Dryer, and Receivers
15410	Plumbing Fixtures
15486	Gas Water Heaters
15671	Outdoor Heat Pumps
15725	Indoor Heat Pump
15733	Package Cooling – Electric Heat Units
15815	Metal Ducts
15820	Duct Accessories
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15855	Diffusers, Registers and Grilles
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**DIVISION 16 ELECTRICAL**

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# BID BOND

The **PRINCIPAL** (*Bidder's company name and address*)

Name:

Address:

The **SURETY** (*Company name and primary place of business*)

Name:

Address:

The **OWNER** (*Entity name and address*)

Name:

Address:

The **PROJECT** for which the Principal's Bid is submitted: (*Project name as it appears in the Bid Documents*)

**KNOW ALL MEN BY THESE PRESENTS**, that we, the undersigned Principal and Surety, jointly and severally, hereby bind ourselves, our heirs, executors, administrators, successors, and assigns to the Owner in the **PENAL SUM of five percent (5%) of the amount of the Principal's bid, but in no event more than Ten thousand Dollars (\$10,000.00).**

**THE CONDITION OF THIS OBLIGATION** is that the Principal has submitted to the Owner the attached bid, which is incorporated herein by reference, for the Project identified above.

**NOW, THEREFORE**, if, within the terms of the Bid Documents, the Owner accepts the Principal's bid and the Principal thereafter either:

- (a) executes and delivers a Construction Contract with the required Performance and Payment Bonds (each in the form contained in the Bid Documents and properly completed in accordance with the bid) and delivers evidence of insurance as prescribed in the Bid Documents, or
  - (b) fails to execute and deliver such Construction Contract with such Bonds and evidence of insurance, but pays the Owner the difference, not to exceed the Penal Sum of this Bond, between the amount of the Principal's Bid and the larger amount for which the Owner may award a Construction Contract for the same Work to another bidder,
- then**, this obligation shall be null and void, otherwise it shall remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that the obligation of the Surety under this Bond shall not in any manner be impaired or affected by any extension of the time within which the Owner may accept the Principal's bid, and the Surety does hereby waive notice of any such extension.

**SIGNED AND SEALED** this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

ATTEST:

**PRINCIPAL:**

\_\_\_\_\_

By \_\_\_\_\_

\_\_\_\_\_  
Name and Title

**SURETY:**

ATTEST:

\_\_\_\_\_

By \_\_\_\_\_

\_\_\_\_\_  
Name and Title

Note: Do not staple this form; use clips. Purpose: quickly and efficiently scan thousands of documents into DCM's database.

## **SECTION 09301 - PORCELAIN TILE**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

#### **1.2 DESCRIPTION OF WORK**

- A. Definition: Tile includes ceramic surfacing units made from clay or other ceramic materials.
- B. Extent of tile work is indicated on drawings and schedules.
- C. Types of tile work in this section include the following:
  - 1. Wall Tile.
  - 2. Floor Tile.
  - 3. Wainscot Accent Tile.
  - 4. Wainscot Tile Cap.
  - 5. Base.
  - 6. Stone Thresholds.
- D. Portland cement plaster scratch coat on wall surfaces indicated to receive tile is work of this section.
- E. Sealing expansion and other joints in tile work with elastomeric joint sealers is work of this section.

#### **1.3 QUALITY ASSURANCE**

- A. Source of Materials: Provide materials obtained from one source for each type and color of tile, grout, and setting materials.
- B. Mock-Up: Contractor shall provide mock-up panels for evaluation of materials, surface preparation techniques and application workmanship.
  - 1. Mock-up panel shall be no less than 4'-0" x 4'-0" panel as follows:
    - a. One (1) panel per room, per surface. (i.e. 1 panel for wall surface and 1 panel for floor surface for each room of different selection).
    - b. Mock-up panels shall be marked identifying room location and product manufacturer, type, style, size and color information.
    - c. Do not proceed with work until materials, workmanship, color, and sheen are approved by Architect.
    - d. Provide additional mock-up panels as required to produce acceptable work.

#### **1.4 SUBMITTALS**

- A. Product Data: Submit manufacturer's technical information and installation instructions for materials required, except bulk materials.
- B. Samples for Selection Purposes: Submit manufacturer's color charts consisting of actual tiles or sections of tile showing full range of colors, textures and patterns available for each type of tile indicated. Include samples of grout and accessories involving color selection.

#### **1.5 PRODUCT HANDLING**

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Prevent damage or contamination to materials by water, freezing, foreign matter or other causes.

## 1.6 PROJECT CONDITIONS

- A. Maintain environmental conditions and protect work during and after installation to comply with referenced standards and manufacturer's printed recommendations.
- B. Vent temporary heaters to exterior to prevent damage to tile work from carbon dioxide buildup.
- C. Maintain temperatures at not less than 50 degrees F in tiled areas during installation and for 7 days after completion, unless higher temperatures required by referenced installation standard or manufacturer's instructions.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:
  - 1. Porcelain Tile:
    - a. StonePeak (Basis of Design)
    - b. American Olean Tile Co.
    - c. Marazzi
- B. Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than Ten (10) days prior to scheduled bid opening.

### 2.2 PRODUCTS, GENERAL

- A. ANSI Standard for Ceramic Tile: Comply with ANSI A137.1 "American National Standard Specifications for Ceramic Tile" for types and grades of tile indicated.
  - 1. Furnish tile complying with "Standard Grade" requirements unless otherwise indicated.
- B. ANSI Standard for Tile Installation Materials: Comply with ANSI standard referenced with installation products and materials indicated.
- C. Colors, Textures and Patterns: For tile and other products requiring selection of colors, surface textures or other appearance characteristics, provide products to match characteristics indicated or, if not otherwise indicated, as selected by Architect from manufacturer's standards.
  - 1. Provide tile trim and accessories which match color and finish of adjoining flat tile.
- D. Mounting: Where factory-mounted tile is required provide back- or edge-mounted tile assemblies as standard with manufacturer unless another mounting method is indicated.
  - 1. Where tile is indicated for installation on exteriors or in wet areas, do not use back or edge-mounted tile assemblies unless tile manufacturer specifies that this type of mounting is suitable for these kinds of use and has been successfully used on other projects.

### 2.3 TILE PRODUCTS

- A. Provide tile complying with the following requirements:
  - 1. Manufacturer/Series:
    - a. **StonePeak "Simply Modern" Collection.**
  - 2. Type:
    - a. Porcelain
  - 3. Wearing Surface for Floors:
    - a. "stable, firm and slip resistant", (exceeds 0.60 on the ASTM C-1028 test, wet and dry).
  - 4. Nominal Thickness:
    - a. 3/8"



5. Nominal Facial Dimensions as follows:
  - a. Floor Tile
    1. **12" x 24" Floor Tile** - "Simply Modern" Series, Unglazed, with 1/4" grout joints.
  - b. Wall Tile **(Wet Wall in Accessible Toilet Wall Tile to be ceiling height)**
    1. **12" x 24" Wall Tile** - "Simply Modern" Series, Unglazed, with 1/4" grout joints.
    2. **4" x 12" "Adamas" Series Wall Tile Accent Band – 3 layers high located 6'-0" AFF.** Glazed, with 1/8" grout joints.
  - c. Base:
    1. **6" x 12" Coved Base** – "Schluter Dilex" Series.
  - d. Wainscot Cap:
    1. **3" x 12" Bullnose** – "Simply Modern" Series.
6. Face: Plain with cushion edges.
- B. Trim Units: Provide tile trim units to match characteristics of adjoining flat tile and to comply with following requirements:
  1. Size:
    - a. As indicated, coordinated with sizes and coursing of adjoining flat tile, where applicable.
  2. Shapes:
    - a. Selected from manufacturer's standard shapes.
  3. External Corners for Portland Cement Mortar Installations:
    - a. Bullnose shape with a radius of not less than 3/4" unless otherwise indicated.
  4. Internal Corners:
    - a. Field-buttet square corners, except use internal cove and cap angle pieces designed to member with stretcher shapes.

## 2.4 STONE THRESHOLDS

- A. General: Provide stone which is uniform in color and finish, fabricated to sizes and profiles indicated or required to provide transition between tile surfaces and adjoining finished floor surfaces.
- B. Marble Thresholds: Provide marble thresholds complying with ASTM C 503 requirements for exterior use and abrasion resistant for uses subject to heavy foot traffic.
  1. Provide white, bonded marble complying with MIA Group "A" requirements for soundness.

## 2.5 SETTING MATERIALS

- A. Portland Cement Mortar Installation Materials: Provide materials to comply with ANSI A108.1 as required for installation method designated, unless otherwise indicated.

## 2.6 GROUTING MATERIALS – FLOOR & WALL

- A. High Performance Epoxy grout that offers color uniformity, durability and stain resistance with extraordinary ease of use.
  1. Laticrete "Spectralock Pro Grout".
  2. Color to be selected by architect after the bid date from manufacturer standards
- B. Epoxy grout is to be installed per manufacturer's instructions.

## 2.7 MISCELLANEOUS MATERIALS

- A. Single-Component Sealants: ASTM C 920, Type S, Grade NS, use NT (for use in joints in non-traffic areas).
- B. Two-Component Sealants: ASTM C 920, Type M, Grade P, Class 25, use T (for use in joints subject to pedestrian traffic).
- C. Tile Cleaner: Product specifically acceptable to manufacturer of tile and grout manufacturer for application indicated and as recommended by National Tile Promotion Federation, 112 North Alfred St., Alexandria, VA 22134 or Ceramic Tile Institute, 700 N. Virgil Ave., Los Angeles, CA 90029.

## **2.8 TILE BACKING PANELS**

- A. Fiber-Cement Backer Board: ASTM C1288, in maximum lengths available to minimize end-to-end butt joints.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. CertainTeed Corporation.
    - b. Custom Building Products.
    - c. James Hardie Building Products, Inc.
  - 2. Thickness: 1/2 inch (12.7 mm) unless otherwise indicated on drawings.
- B. Install panels and treat joints in accordance with ANSI A108.11, APA guidelines, and manufacturer's written instructions for type of application indicated

## **2.9 WATERPROOF MEMBRANE**

- A. General: Manufacturer's standard product that complies with ANSI A118.10 and is recommended by the manufacturer for the application indicated. Include reinforcement and accessories recommended by manufacturer.
- B. Polyethylene Sheet: Polyethylene faced on both sides with fleece webbing; 0.008-inch (0.2-mm) nominal thickness.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Schluter Systems L.P.
    - b. Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than Ten (10) days prior to scheduled bid opening.
- C. Install waterproof membrane to comply with ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness that is bonded securely to substrate.
  - 1. Allow waterproof membrane to cure and verify by testing that it is watertight before installing tile or setting materials over it.

# **PART 3 - EXECUTION**

## **3.1 INSPECTION**

- A. Examine surfaces to receive tile work and conditions under which tile will be installed. Do not proceed with tile work until surfaces and conditions comply with requirements indicated in referenced tile installation standard.

## **3.2 PRE-INSTALLATION CONFERENCE**

- A. A pre-installation conference is required before any tiling materials are installed. This conference shall be conducted by a representative of the Architect and attended by the General Contractor and Tile Contractor. Provide at least 72 hours advance notice to participants prior to convening pre-installation conference.

- B. The pre-installation conference is intended to clarify demolition and application requirements for work to be completed before tiling operations can begin. This would include a detailed review of the specifications, plans, finish schedules and approved shop drawings, submittal data, samples and mock-ups. If this pre-installation conference cannot be satisfactorily concluded without further inspection and investigation by any of the parties present, it shall be reconvened at the earliest possible time to avoid delay of the work. In no case should the work proceed without inspection of all tiling areas and substantial agreement on all requirements.
- C. The following are to be accomplished during the conference:
  - 1. To review all requirements listed in the specifications and resolve any questions or conflicts that may arise.
  - 2. To establish trade-related job schedules.
  - 3. To establish tiling schedule and work methods that will prevent progress of other trades.
  - 4. Require that all surface preparations and conditions be complete prior to installing tile work.
  - 5. To establish those areas on the job site that will be designated as work and storage areas for tiling operations.
  - 6. To establish acceptable methods of protecting the finished tile surfaces if any trades must travel across or work on, above or around any areas of the finished tile work.
- D. The Architect shall prepare a written report indicating actions taken and decisions made at this pre-installation conference. This report shall be made a part of the project record and copies furnished to the General Contractor and the Owner.

### **3.3 INSTALLATION, GENERAL**

- A. ANSI Tile Installation Standard: Comply with applicable parts of ANSI 108 series of tile installation standards included under "American National Standard Specifications for the Installation of Ceramic Tile".
- B. TCA Installation Guidelines: TCA "Handbook for Ceramic Tile Installation"; comply with TCA installation methods indicated or, if not otherwise indicated, as applicable to installation conditions shown.
- C. Setting beds:
  - 1. Floor tile: Thinset.
  - 2. Wall tile: Thinset.
- D. Extend tile work into recesses and under or behind equipment and fixtures, to form a complete covering without interruptions, except as otherwise shown. Terminate work neatly at obstructions, edges and corners without disrupting pattern or joint alignments.
- E. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures and other penetrations so that plates, collars, or covers overlap tile.
- F. Jointing Pattern: Unless otherwise shown, lay tile in grid pattern. Align joints when adjoining tiles on floor, base, walls and trim are same size. Layout tile work and center tile fields in both directions in each space or on each wall area. Adjust to minimize tile cutting. Provide uniform joint widths, unless otherwise shown.
  - 1. For tile mounted in sheets make joints between tile sheets same width as joints within tile sheets so that extent of each sheet is not apparent in finished work.
- G. Lay out tile wainscots to next full tile beyond dimensions indicated.
- H. Expansion Joints: Locate expansion joints and other sealant filled joints, including control, contraction and isolation joints, where indicated, or if not indicated, at spacing and locations recommended in TCA "Handbook for Ceramic Tile Installation", and approved by Architect.

1. Prepare joints and apply sealants to comply with requirements of referenced standards and sealant manufacturer.
- I. Grout tile to comply with referenced installation standards, using grout materials indicated.

### **3.4 FLOOR INSTALLATION METHODS**

- A. Porcelain Tile: Install tile to comply with requirements indicated below for setting bed methods, TCA installation methods related to types of subfloor construction, and grout types:
  1. Concrete Subfloors, Interior: TCA F113 with isolation membrane equal to Nobleseal CIS.
- B. Grout:
  1. High Performance Epoxy grout is to be installed per manufacturer's instructions.
- C. Stone Thresholds: Install stone thresholds at locations indicated; set in same type of setting bed as abutting field tile unless otherwise indicated.
- D. Metal Edge Strips: Install at locations indicated or where exposed edge of tile flooring meets carpet, wood or other flooring which finishes flush with top of tile.

### **3.5 WALL TILE INSTALLATION METHODS**

- A. Install types of tile designated for wall application to comply with requirements indicated below for setting bed methods, TCA installation methods related to subsurface wall conditions, and grout types:
  1. Solid Backing, Interior: TCA W221 in wet areas and W213 or W223 25
    - a. applicable in other areas.
- B. Grout:
  1. High Performance Epoxy grout is to be installed per manufacturer's instructions.

### **3.6 CLEANING AND PROTECTION**

- A. Cleaning: Upon completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.
  1. Unglazed tile shall be cleaned with non-acid solutions only recommended by tile and grout manufacturer's printed instructions, but no sooner than 14 days after installation. Protect metal surfaces, cast iron and vitreous plumbing fixtures from effects of tile cleaning. Flush surface with clean water after cleaning.
- B. Finished Tile Work: Leave finished installation clean and free of cracked, chipped, broken, unbonded, or otherwise defective tile work.
- C. Protection: When recommended by tile manufacturer, apply a protective coat of neutral protective cleaner to completed tile walls and floors. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage and wear.
- D. Prohibit foot and wheel traffic from using tiled floors for at least 7 days after grouting is completed. Before final inspection, remove protective coverings and rinse neutral cleaner from tile surfaces.

### **3.7 EXTRA STOCK**

- A. Deliver stock of maintenance materials to Owner. Furnish maintenance materials from same manufactured lot as materials installed and enclosed in protective packaging with appropriate identifying labels.
  1. Tile Flooring: Furnish not less than one box for each type, color, pattern and size installed.

### **END OF SECTION**



# ELECTRICAL LEGEND

## CEILING OUTLETS

- A RECESSED 2' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL
- A RECESSED 2' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- A RECESSED 1' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL
- A RECESSED 1' X 4' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- A RECESSED 2' X 2' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL
- A RECESSED 2' X 2' LED FIXTURE MARK "A" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- FS SURFACE OR PENDANT MOUNTED LED STRIP FIXTURE MARK "FS" CIRCUIT No. 2 TYPICAL
- FS SURFACE OR PENDANT MOUNTED LED STRIP FIXTURE MARK "FS" CIRCUIT No. 2 TYPICAL "EMERGENCY POWER"
- RECESSED OR SURFACE MOUNT DOWNLIGHT
- RECESSED OR SURFACE MOUNT DOWNLIGHT "EMERGENCY POWER"
- SURFACE OR PENDANT MOUNTED ROUND FIXTURE
- JUNCTION BOX
- EXIT LIGHT
- EXHAUST FAN
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT IN CEILING. UNLESS NOTED OTHERWISE
- UPPER RECEPTACLE NON CONTROLLED/LOWER RECEPTACLE CONTROLLED BY ROOM AUTOMATION SYSTEM. CONTROLLED RECEPTACLE SHALL BE MARKED WITH THE SYMBOL SHOWN IN NEC FIGURE 406.3 (E) AND LOCATED ON THE CONTROLLED RECEPTACLE OUTLET WHERE VISIBLE AFTER INSTALLATION.
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. CEILING MOUNTED.

## WALL OUTLETS

- WALL MOUNTED OCCUPANCY SENSOR WITH WIRE GUARD
- GYM HUBBELL NO. LO-IR-WY

1. ALL 120V RECEPTACLES ON THIS PROJECT SHALL BE TAMPER PROOF TYPE PER THE NATIONAL ELECTRIC CODE.

- WALL MOUNTED COMBO EXIT LIGHT/EMERGENCY
- WALL MOUNTED LIGHTING FIXTURE
- WALL MOUNTED LIGHTING FIXTURE "EMERGENCY POWER"
- BATTERY OPERATED EMERGENCY WALL PACK
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE; PROVIDE WEATHERPROOF BOX FOR RECEPTACLE
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER
- QUADRAPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- QUADRAPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- QUADRAPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER UNLESS NOTED OTHERWISE
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFI, 3 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 26" AFF TO C/L FOR DRINKING FOUNTAIN
- SINGLE RECEPTACLE - 30 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA L6-30R. MOUNT AS DIRECTED FOR RACK UPS SYSTEM
- SINGLE RECEPTACLE - 30 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA L6-30R. MOUNT AS DIRECTED FOR RACK UPS SYSTEM
- JUNCTION BOX SIZE NOTED OR REQUIRED, WITH BLANK SCREW COVER AND FLEXIBLE CONDUIT CONNECTION
- PHOTOCELL; TORK MODEL 5231 (120V), TWIST RECEPTACLE: TORK 2421.
- 250V RECEPTACLE; 4 WIRE; MT 14" A.F.F. TO C/L; NEMA 10-30R; HUBBELL SERIES 9350
- 250V RECEPTACLE; 4 WIRE; MT 14" AFF TO C/L; NEMA 14-30R; HUBBELL SERIES 9350
- CEILING MOUNTED OUTLET. NEMA 5-20R IN SINGLE GANG BOX SUSPENDED FROM CEILING USING TYPE "50" CORD (2410 WITH GROUND) AND KELLEMS GRIP AT BOTH ENDS. SUSPEND FROM STRUCTURE SUCH THAT RECEPTACLE IS 6 FEET FROM FINISHED FLOOR.
- UNLESS NOTED OTHERWISE ON SHEET 1/E3.1
- WELDING RECEPTACLE - NEMA 6-50R

## DEMOLITION DEVICES

- TYPICAL ELECTRICAL EQUIPMENT TO BE REMOVED
- TYPICAL SWITCH TO BE REMOVED

- EX:RL EXISTING EQUIPMENT TO BE REMOVED AND RELOCATED
- EX:RD EXISTING EQUIPMENT THAT HAS BEEN RELOCATED
- EX:RR EXISTING EQUIPMENT TO BE REMOVED AND REPLACED
- EX:RW EXISTING EQUIPMENT TO BE REWORKED

## EXISTING DEVICES

- TYPICAL LIGHTS TO REMAIN
- TYPICAL ELECTRICAL EQUIPMENT TO BE REMAIN, SEE POWER RISER.

## TELEPHONE & TELEVISION SYSTEMS

- WALL OUTLET - 4-1/2" SQ X 3-1/2" DEEP BOX; MOUNT 18" AFF; FOR TYPICAL UNITS-SEE TELEPHONE RISER DIAGRAM

- TBB TELEPHONE BACKBOARD - 3/4" EXTERIOR GRADE PLYWOOD WITH TWO COATS OF INSULATING VARNISH, SIZE AS SHOWN

- CCTV CLOSED CIRCUIT TELEVISION CAMERA

## PANELS AND POWER

- PANELBOARD
- PANELBOARD FLUSH MOUNTED
- CON CONTROL PANEL
- NON-FUSIBLE DISCONNECT SWITCH; XX/YY/ZZ WHERE X INDICATES AMPERAGE, Y INDICATES # OF POLES, AND Z INDICATES NEMA RATING
- FUSIBLE DISCONNECT SWITCH; XX/YY/ZZ WHERE X INDICATES AMPERAGE, Y INDICATES # OF POLES, AND Z INDICATES NEMA RATING; FURNISH AND INSTALL FUSES PER MANUFACTURER'S RECOMMENDATIONS
- MOTOR FURNISHED BY OTHERS AND CONNECTED BY ELECTRICAL CONTRACTOR; '5' INDICATES HORSE POWER RATING
- CIRCUIT BREAKER
- NONFUSIBLE SWITCH
- FUSIBLE SWITCH
- DRAWOUT CONNECTION
- T TRANSFORMER
- B ENCLOSED CIRCUIT BREAKER
- E ELECTRIC METER
- GROUNDING ELECTRODE CONNECTION
- G GROUND BUSS

## FIRE ALARM SYSTEM

- FACP FIRE ALARM SYSTEM CONTROL PANEL
- ANN FIRE ALARM SYSTEM REMOTE ANNUNCIATOR - FLUSH MOUNTING
- F FIRE ALARM SYSTEM MANUAL PULL STATION
- ES FIRE ALARM SYSTEM VOICE EVAC SPEAKER/STROBE;
- ESR WEATHERPROOF FIRE ALARM SYSTEM SIGNAL HORN;
- ESX FIRE ALARM SYSTEM STROBE;
- ESY FIRE ALARM SYSTEM TAMPER SWITCH
- ESZ FIRE ALARM SYSTEM FLOW SWITCH
- ESD FIRE ALARM SYSTEM AUTOMATIC HEAT DETECTOR; 135 DEGREE/RATE OF RISE TYPE; CEILING MOUNTED
- ESF FIRE ALARM SYSTEM AUTOMATIC SMOKE DETECTOR; CEILING MOUNTED
- ESG FIRE ALARM SYSTEM AUTOMATIC CO DETECTOR BASE; CEILING MOUNTED
- ESH FIRE ALARM SYSTEM AUTOMATIC AIR DUCT SMOKE DETECTOR MOUNTED IN MECHANICAL DUCT
- ERT FIRE ALARM SYSTEM REMOTE TEST STATION
- ETC FIRE ALARM SYSTEM ZONE MODULE, CONTROL TYPE
- ETM FIRE ALARM SYSTEM ZONE MODULE, MONITOR TYPE
- EF FIRE ALARM SYSTEM SUPERVISED CIRCUITING IN CONDUIT, RACEWAY INSTALLED CONCEALED
- EM FIRE ALARM SYSTEM MAGNETIC DOOR HOLDERS

## BRANCH CIRCUITING

- RUN CONCEALED UNDER FLOOR OR IN GRADE
- RUN CONCEALED IN CEILING OR WALLS
- LA-1 HOMERUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES 2 #12, 1 #12 GROUND - 3/4" C; -10-11- 3 #12, 1 #12 GROUND - 3/4" C; NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.
- LA-10 HOMERUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES 2 #10, 1 #10 GROUND - 3/4" C; -10-11- 3 #10, 1 #10 GROUND - 3/4" C; -10-11- 4 #10, 1 #10 GROUND - 1" C; ETC. AS PER NEC. LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.
- LA-1 HOMERUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES 2 #8, 1 #10 GROUND - 1" C; -8-11- 3 #8, 1 #10 GROUND - 3/4" C; -8-11- 4 #8, 1 #10 GROUND - 1 1/4" C; ETC. AS PER NEC. LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.
- 6 WHERE A NUMBER IS SHOWN NEXT TO OR ON THE CIRCUIT OR HOMERUN, THE NUMBER INDICATES CONDUCTOR SIZE OTHER THAN #12 - NUMBER #6 CONDUCTORS INDICATED. PROVIDE GROUND SIZED PER NEC TABLE 250-95 FOR MAX AMPACITY OF CONDUCTOR SIZE AS SHOWN. SIZE CONDUIT PER NEC ANNEX C.
- LIQUID-TIGHT FLEXIBLE CONDUIT CONNECTION
- SURFACE MOUNTED CONDUIT; RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES

## GENERAL DEMOLITION NOTES:

- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BID AND BIDDING ACCORDINGLY.
- ELECTRICAL DEVICES SHOWN IN BOLD INDICATES NEW WORK. ELECTRICAL DEVICES THAT ARE SHOWN IN LIGHT PEN AND DASHED INDICATE EXISTING DEVICES TO REMAIN.
- ALL DEMOLITION WORK SHALL BE PERFORMED WITH CARE NOT TO DISTURB THE OTHER EXISTING UTILITIES. IF EXISTING UTILITIES ARE DAMAGED BY THE CONTRACTOR, THE EXISTING UTILITIES ARE TO BE FIXED TO IT'S ORIGINAL CONDITION WITHOUT DELAY, BY AND AT THE EXPENSE OF THE CONTRACTOR.
- LEGEND SYMBOLS ARE TYPICAL AND LOCATIONS ARE APPROXIMATE AND ARE NOT INTENDED TO LIMIT THE AMOUNT OF DEMOLITION WORK. COORDINATE WITH EXISTING CONDITIONS AND THESE NOTES AND REMOVE ALL APPLICABLE SYSTEMS AND COMPONENTS CONFLICTING WITH FINISHED DESIGN INTENT.
- EXISTING BRANCH WIRING AND DEVICES SHOWN IS DIAGRAMMATICAL ONLY BASED ON EXISTING DRAWINGS AND SURVEYS. COORDINATE WITH ACTUAL EXISTING CONDITIONS FOR EXACT LOCATIONS.
- TRENCH, CUT AND REMOVE EXISTING SURFACES AS REQUIRED FOR THE INSTALLATION OF ALL NEW ELECTRICAL PROVISIONS.
- CONCEALED CONDUIT THAT CANNOT BE REMOVED DUE TO INACCESSIBILITY MAY BE ABANDONED. CONDUCTORS SHALL BE REMOVED AND CONDUIT CUT FLUSH WITH SURFACE.
- OUTLET BOXES THAT CANNOT BE REMOVED DUE TO FLUSH MOUNTING IN PARTITIONS SHALL BE FILLED WITH GROUT, PATCHED AND FINISHED FLUSH TO MATCH EXISTING WALL SURFACE.
- EXISTING JUNCTION BOXES MAY BE USED AS NOTED IF OF THE PROPER SIZE. MODIFICATIONS SHALL BE MADE WHEN REQUIRED SUCH AS PROVIDING EXTENSION RINGS, LOCKNUTS, BUSHINGS, ETC.
- EXISTING PANELBOARDS SHALL BE UTILIZED TO FACILITATE THE WORK AS SHOWN ON THE DRAWINGS. NEW CIRCUIT BREAKERS SHALL BE OF THE SAME MANUFACTURER (WHENEVER POSSIBLE), FRAME SIZE, AIC RATING AND TYPE AS EXISTING. CONTRACTOR SHALL PROVIDE ALL ADDITIONAL MATERIALS FOR PANELBOARDS TO PROPERLY MEET THE INTENT OF THE DRAWINGS.
- WHEN EXISTING DEVICES, SWITCHES, EQUIPMENT ETC., ARE NOTED TO BE REMOVED AND THE CIRCUIT(S) SERVING SUCH ITEMS SERVES OTHER ITEMS OR DEVICES WHICH ARE TO BE MAINTAINED, THE CONTRACTOR SHALL REROUTE, EXTEND, MODIFY, ETC., EXISTING CIRCUITS AS REQUIRED TO MAINTAIN COMPLETE AND OPERATING SYSTEMS.
- CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS TO BE DEMOLISHED.

## MISCELLANEOUS

- A AMPERE
- ADA AMERICANS WITH DISABILITIES ACT
- AFF ABOVE FINISH FLOOR
- AIC AMPERE INTERRUPTING CAPACITY
- ATS AUTOMATIC TRANSFER SWITCH
- C CONDUIT
- CL CENTER LINE
- CWP COLD WATER PIPE
- EM EMERGENCY
- EMT ELECTRIC METALLIC TUBING
- GFI GROUND FAULT INTERRUPTER
- GRC GALVANIZED RIGID METAL CONDUIT
- GRD GROUND
- MCB MAIN CIRCUIT BREAKER
- MCC MOTOR CONTROL CENTER
- WLO MAIN LUGS ONLY
- MT MOUNT
- N NEUTRAL
- NIC NOT IN CONTRACT
- NEC NATIONAL ELECTRICAL CODE
- NEMA NATIONAL ELECTRICAL MANUFACTURER'S ASSOC.
- NFPA NATIONAL FIRE PROTECTION ASSOCIATION
- NL NIGHT LIGHT
- NTS NOT TO SCALE
- P POLE
- PF POWER FACTOR
- PH PHASE
- PNL PANEL
- PVC PVC (POLYVINYL CHLORIDE) CONDUIT
- SLD SINGLE LINE DIAGRAM
- TBB TELEPHONE BACKBOARD
- TVSS TRANSIENT VOLTAGE SURGE SUPPRESSORS
- UL UNDERWRITER'S LABORATORY
- U.N.O. UNLESS NOTED OTHERWISE
- V VOLTAGE
- W WIRE
- WP WEATHERPROOF
- # NUMBER
- 3R NEMA 3R WEATHERPROOF ENCLOSURE
- 4X NEMA 4X WEATHERPROOF/CORROSION ENCLOSURE

## MISCELLANEOUS EQUIPMENT

- C CONTACTOR
- EX EXTERIOR POLE LIGHT
- WH WATER HEATER
- MON SCREEN MONITOR

## LIGHTING CONTROLS

- OS CEILING MOUNTED OCCUPANCY SENSOR
- PR POWER PACK FOR OCCUPANCY SENSOR
- L1 ROOM CONTROLLER - 1 ZONE DIMMING
- L2 ROOM CONTROLLER - 2 ZONE DIMMING
- LE ROOM CONTROLLER - EMERGENCY LIGHTING UL924 DEVICE
- RC ROOM CONTROLLER - ON/OFF NO DIMMING
- D1 WALL DIMMER - ON/OFF & 0-10V 1-ZONE DIMMING
- D2 WALL DIMMER - ON/OFF & 0-10V 2-ZONE DIMMING
- S1 LOW VOLTAGE SWITCH, 2-BUTTON
- S1X LOW VOLTAGE SWITCH CONNECTED TO LIGHTING CONTROL PANEL, 2-BUTTON
- S01 OCCUPANCY SENSOR WALL SWITCH, ULTRASONIC TECHNOLOGY, 1-BUTTON SIMILAR TO HUBBELL LIGHT HAWK 2

\*COORDINATE WITH LIGHTING CONTROL DETAILS FOR MORE REQUIREMENTS

## WALL SWITCHES (UNLESS OTHERWISE NOTED, MOUNT 48" A.F.F.)

- S A.C. TYPE, SINGLE POLE, 20 AMP, 120/277 VOLT
- S3 A.C. TYPE, 3-WAY, 20 AMP, 120/277 VOLT
- SM MOTOR RATED TOGGLE SWITCH DISCONNECT, WITH THERMAL OVERLOADS A.C. TYPE, 20 AMP, 120/277 VOLT
- 30/1 SM MOTOR RATED TOGGLE SWITCH DISCONNECT, WITH THERMAL OVERLOADS A.C. TYPE, 30 AMP, 120/277 VOLT
- ST PRESET INTERVAL TIMER SWITCH, HUBBELL TD-300 SERIES OR EQUALS
- P PUSH BUTTON, TOGGLE SWITCH, ROTARY SWITCH, ETC., FURNISHED WITH EQUIPMENT BY OTHERS, INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR.

## GENERAL ELECTRICAL NOTES:

- THE SERVICE VOLTAGE TO THE FACILITY SHALL BE 240/120V, 3PH, DELTA 4-WIRE.
- INSTALLATION SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, STATE AND LOCAL CODES, AND MANUFACTURER'S RECOMMENDATIONS.
- MAINTAIN ALL CLEARANCES FOR ELECTRICAL EQUIPMENT PER THE NEC.
- COORDINATE ROUGH-IN OF ALL ELECTRICAL DEVICES WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND MILLWORK SHOP DRAWINGS PRIOR TO ROUGH-IN. AVOID ALL BACKSPASHES AT COUNTERS.
- ALL DIMENSIONS INDICATED IN THESE DOCUMENTS ARE FOR REFERENCE AND COORDINATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD, AND COORDINATING WORK WITH OTHER TRADES TO AVOID CONFLICTS.
- VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL BEFORE ROUGH-IN OF LIGHT SWITCHES TO ENSURE PROPER SWITCH LOCATION.
- THE LOCATION OF OUTLETS, FIXTURES, AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE, OFFSET AS NEEDED OR AS REQUESTED BY THE OWNER. THE OWNER SHALL HAVE THE RIGHT TO RELOCATE ANY OUTLETS OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUT ANY ADDITIONAL COST.
- COORDINATE EXACT LOCATION OF ALL ELECTRICAL FLOOR DEVICES WITH ARCHITECT PRIOR TO INSTALLATION.
- ALL CONDUIT SIZE SHALL BE A MINIMUM 3/4" UNLESS NOTED OTHERWISE IN THE DRAWINGS OR SPECIFICATIONS.
- ALL ELECTRICAL RACEWAYS AND CABLING SHALL BE INSTALLED CONCEALED WITHIN THE CONFINES OF THE BUILDING FOUNDATIONS EXCEPT THOSE SPECIFICALLY SERVING LOADS OR EQUIPMENT EXTERIOR OF THE BUILDING. ALL SUCH RACEWAYS SHALL BE A MINIMUM 18" INSIDE FOUNDATIONS AND POWER AND COMMUNICATIONS RACEWAYS SHALL BE SEPARATED BY A MINIMUM 18".
- ALL CONDUITS INSTALLED UNDERFLOOR SHALL BE ROUTED UNDER STRUCTURAL CONCRETE FLOOR SLABS. CONTRACTOR SHALL NOT INSTALL CONDUITS IN CONCRETE FLOORING WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER. CONDUITS PENETRATING THRU CONCRETE FLOORS SHALL ADHERE TO THE ELECTRICAL SPECIFICATIONS AND RECOMMENDATIONS OF THE STRUCTURAL ENGINEER.
- ALL RACEWAYS INSTALLED ON EXTERIOR OF THE BUILDING, INCLUDING CONDUIT UNDER CANOPIES, SHALL BE GRC. EMT WILL NOT BE ACCEPTED.
- ALL RACEWAYS SHALL BE SUPPORTED PER NEC AND AT LEAST EVERY 10' AND WITHIN 3' OF EVERY JUNCTION BOX. RACEWAYS SUPPORTED ON BOTTOM OF SECONDARY CEILING SHALL BE SUPPORTED FROM THE STRUCTURE NOT FROM THE GYPBOARD CEILING.
- ALL EMPTY WALL MOUNTED JUNCTION BOXES SHALL BE PROVIDED WITH A WALL BLANK AND ALL EMPTY RACEWAYS SHALL BE PROVIDED WITH A PULL WIRES.
- PROVIDE ALL CONDUIT STUBS WITH A PROTECTIVE COLLAR.
- INSURE THAT ALL PENETRATIONS OF FIRE WALLS AND DECKS ARE PROPERLY SEALED PER INTERNATIONAL BUILDING CODE 712 AND WITH AN UL APPROVED DEVICE OR FIRE CAULK. REFER TO ARCHITECTURAL PLANS FOR THE LOCATIONS OF RATED FIRE WALLS AND UL ASSEMBLY LOCATIONS AND TYPES AND BID ACCORDINGLY.
- PROVIDE A CONDUIT EXPANSION JOINTS WITH BONDING JUMPER IN ALL CONDUITS CROSSING AN EXPANSION JOINT. REFER TO ARCHITECTURAL DRAWINGS FOR EXPANSION JOINT LOCATIONS.
- ALL UNDERGROUND CONDUITS RUNS ENTERING THE BUILDING SHALL BE SEALED TO PREVENT THE ENTRANCE OF MOISTURE.
- ALL FLEXIBLE CONDUITS ON THE EXTERIOR, IN WET LOCATIONS OR ANY MECHANICAL ROOM SHALL BE LIQUID TIGHT WITH SUITABLE FITTINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING AROUND DEVICES, PENETRATIONS, OUTLETS, AND CONDUITS THAT PENETRATE THE WALLS ABOVE THE CEILING TO MAINTAIN SOUNDPROOFING. CONTRACTOR SHALL VERIFY THAT THE OPENINGS SIZES ARE LESS THAN 1/2" ON ALL SIDES OF THE PENETRATIONS. ALL OPENINGS IN EXCESS OF 1/2" SHALL BE CAULKED/SEALED WITH SHEET ROCK MUD. THE DRYWALL CONTRACTOR SHALL BE RESPONSIBLE FOR SEALING PENETRATIONS IN PLACE WHEN THE SHEETROCK ARE INSTALLED. PENETRATIONS MADE AFTER THE DRYWALL CONTRACTOR HAS FINISHED IN AN AREA SHALL BE SEALED BY THE CONTRACTOR MAKING THE PENETRATION.
- PLANNED INTERRUPTIONS OF UTILITY SERVICE TO ANY EXISTING FACILITY OR AREAS WITHIN ANY FACILITY AFFECTED BY THIS CONTRACT, SHALL BE CAREFULLY PLANNED AND COORDINATED IN ADVANCE OF THE REQUESTED INTERRUPTION. THE CONTRACTOR SHALL NOT INTERRUPT SERVICES UNTIL SPECIFIED APPROVAL HAS BEEN GRANTED. THE REQUEST SHALL INDICATE SERVICES AND AREAS TO BE AFFECTED, DATE AND TIME OF INTERRUPTION AND DURATION OF OUTAGE. REQUEST FOR INTERRUPTION OF SERVICE WILL NOT BE APPROVED UNTIL ALL EQUIPMENT AND MATERIAL REQUIRED FOR THE COMPLETION OF THAT PARTICULAR PHASE OF WORK ARE ON THE JOB SITE. CONTRACTOR IS RESPONSIBLE FOR ALL OVERTIME, HOLIDAY, AND WEEKEND PAY TO THEIR EMPLOYEES TO DO THIS WORK DURING SCHEDULED NON-NORMAL WORK HOURS.
- BUILDING OWNER MUST RECEIVE RECORD DRAWINGS AND MANUALS THAT PROVIDE INSTRUCTIONS ABOUT THE OPERATION AND MAINTENANCE OF THE BUILDING'S ELECTRICAL DISTRIBUTION SYSTEM.
- CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS FOR OCCUPANCY SENSORS. PROVIDE PROPER NUMBER OF POWER PACKS AND LOCATE POWER PACKS AND OCCUPANCY SENSORS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- ALL JUNCTION BOX COVERS ABOVE THE CEILING SHALL BE CLEARLY MARKED WITH WHICH CIRCUITS OR ELECTRICAL SYSTEM THEY CONTAIN.
- HVAC EQUIPMENT POWER WIRING SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. CONTROL EQUIPMENT AND CONTROL WIRING SHALL BE FURNISHED UNDER DIVISION 15 UNLESS OTHERWISE NOTED. PROVIDE 3/4" CONDUITS WITH PULL WIRE BETWEEN INSIDE AND OUTSIDE UNITS, THERMOSTAT OUTLETS AND UNITS AND/OR MECHANICAL CONTROL PANEL AS APPLICABLE. THERMOSTAT OUTLETS SHALL BE 4" SQUARE OUTLETS. FLUSH MOUNTED WITH SINGLE GANG OR DOUBLE GANG PLASTER RINGS AS DIRECTED BY THE HVAC CONTRACTOR. COORDINATE EXACT LOCATION OF ALL EQUIPMENT, DEVICES, OUTLETS, ETC., WITH THE MECHANICAL DRAWINGS AND DIVISION 15 SPECIFICATIONS. COORDINATE WITH THE HVAC CONTRACTOR FOR EXACT LOCATIONS OF ALL EQUIPMENT.

## MC CABLE:

WILL BE ALLOWED WHERE CONCEALABLE AND ALLOWED BY NEC.

## RENOVATIONS

TO THE

CLAY COUNTY CAREER ACADEMY

FOR THE

CLAY COUNTY BOARD OF EDUCATION

ASHLAND, ALABAMA

MCKEE and ASSOCIATES  
ARCHITECTS, INC.

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SHEET TITLE : ELECTRICAL LEGEND & NOTES

MCKEE JOB # : 21.239

PSCA # :

DRAWN BY : J. TILLERY

DATE : 05.18.2022

REVISED DATE : 06-08-2022

REVISED DATE :

REVISED DATE :

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SHEET NO. : E0.1



WEDNESDAY, JUNE 13, 2024 4:10:41 PM

**GENERAL NOTES:**

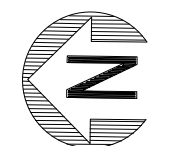
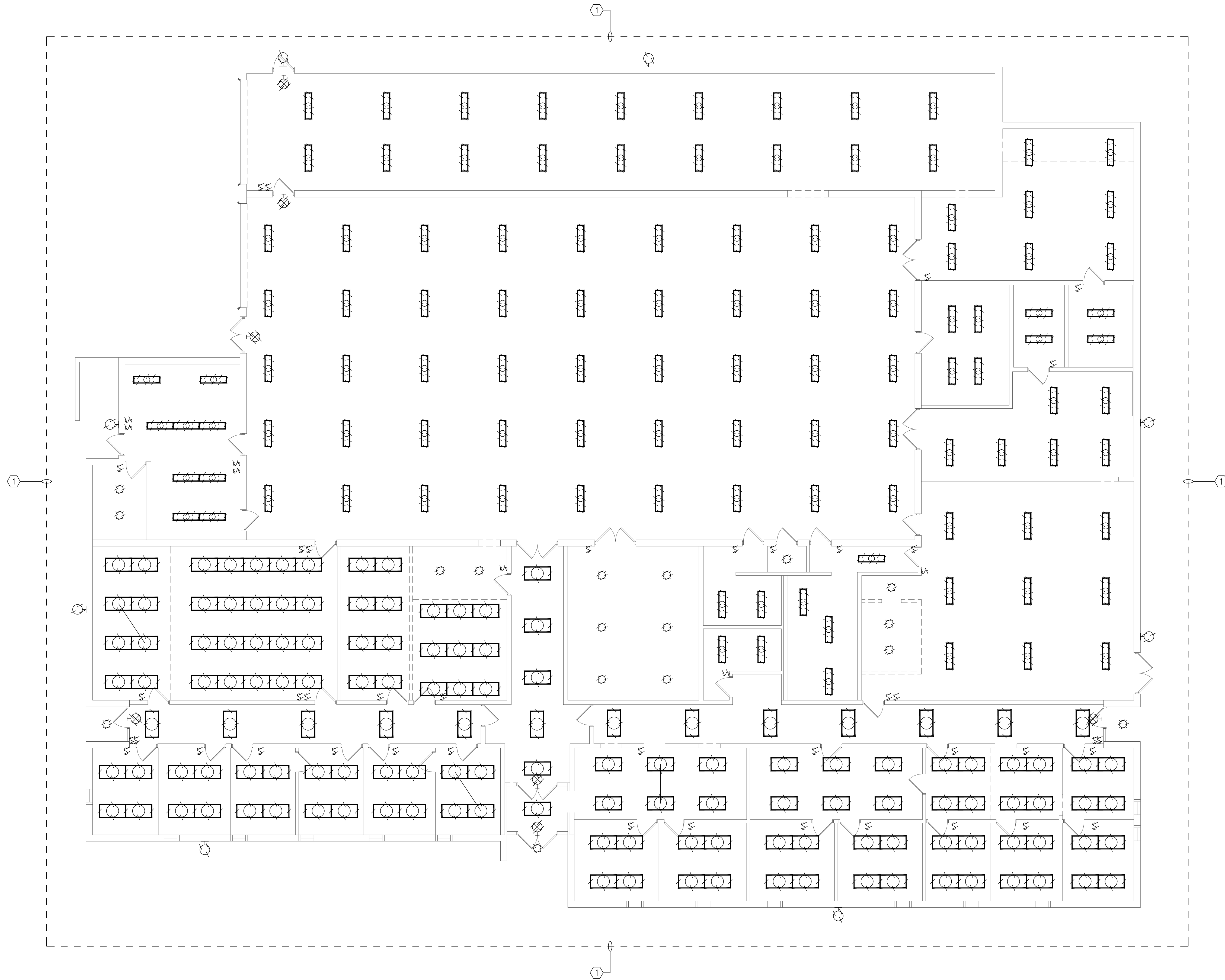
1. CONTRACTOR RESPONSIBLE FOR REMOVING AND REINSTALLING ALL CEILING MOUNTED DEVICES IN ALL AREAS THAT NEW CEILINGS WILL BE INSTALLED. LOWER DEVICES TO NEW CEILINGS AS REQUIRED. INTERCEPT AND EXTEND CIRCUITRY AS NEEDED. VISIT SITE PRIOR TO BIDS TO QUANTIFY THE AMOUNT OF WORK AND BID ACCORDINGLY.
2. REMOVE ALL SWITCHING AS REQUIRED TO ACCOMPLISH NEW SWITCHING REQUIREMENTS. SEE LIGHTING PLANS FOR NEW SWITCH REQUIREMENTS FOR EACH SPACE.
3. CONTRACTOR RESPONSIBLE FOR REMOVING AND PROPERLY DISPOSING OF ALL EXISTING LIGHTS AND LIGHT BULBS.

**SHEET NOTES:**

- ① CONTRACTOR SHALL REMOVE ALL EXISTING LIGHTING IN THIS AREA. EXISTING CIRCUITRY SHALL BE REMOVED BACK TO POINT OF ORIGIN.

**EXISTING RACEWAYS:**

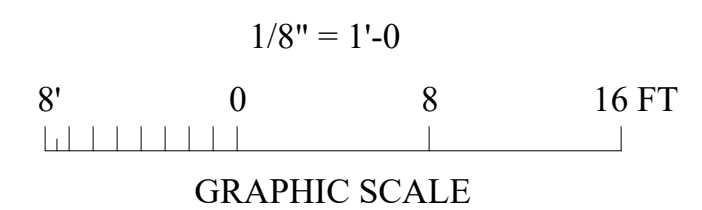
ELECTRICAL CONTRACTOR SHALL SUPPORT ALL EXISTING RACEWAYS TO REMAIN PER THE NATIONAL ELECTRICAL CODE. PROVIDE ALL EXISTING OPEN JUNCTION BOXES WITH COVERS AND PROVIDE PUSH PENNIES TO ANY EXISTING OPEN KNOCKOUTS. THE EXISTING OVERHEAD CONDUIT SYSTEM IS CURRENTLY NOT SUPPORTED CORRECTLY AND THERE IS OPEN JUNCTION BOXES AND KNOCKOUTS. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE TO CORRECT ALL THESE ITEMS IN THEIR BASE BID.



1  
E1.1

**FLOOR PLAN DEMOLITION - LIGHTING**

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



**Gunn & Associates, P.C.**  
Consulting Engineers  
3102 Highway 14  
Millbrook, AL 36054  
Tel: 334.285.1273  
1200 Providence Park, Suite 200  
Birmingham, AL 35242  
GA#22-115

**RENOVATIONS**  
TO THE  
**CLAY COUNTY CAREER ACADEMY**  
FOR THE  
**CLAY COUNTY BOARD OF EDUCATION**  
ASHLAND, ALABAMA



**McKEE and ASSOCIATES**  
ARCHITECTS, INC.  
631 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933

SHEET TITLE : FLOOR PLAN DEMOLITION  
LIGHTING

McKEE JOB # : 21.239

PSCA # :

DRAWN BY : J. TILLERY

DATE : 05.18.2022

REVISED DATE : 06-08-2022

REVISED DATE :

REVISED DATE :

SHEET NO. : **E1.1**

- MONDAY, JUNE 13, 2022 4:10:11 PM

### SHEET NOTES:

- ① EXISTING DEVICE TO REMAIN.
- ② REMOVE ALL ELECTRICAL FROM WALL AND DOORS TO BE REMOVED. INTERCEPT AND EXTEND EXISTING CIRCUITRY TO EXISTING DEVICES TO REMAIN.
- ③ CONTRACTOR SHALL REPLACE EXISTING RECEPTACLE ONE FOR ONE WITH NEW GFCI TYPE. CONTRACTOR SHALL INTERCEPT AND EXTEND EXISTING CIRCUIT AS REQUIRED.

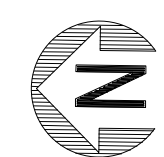
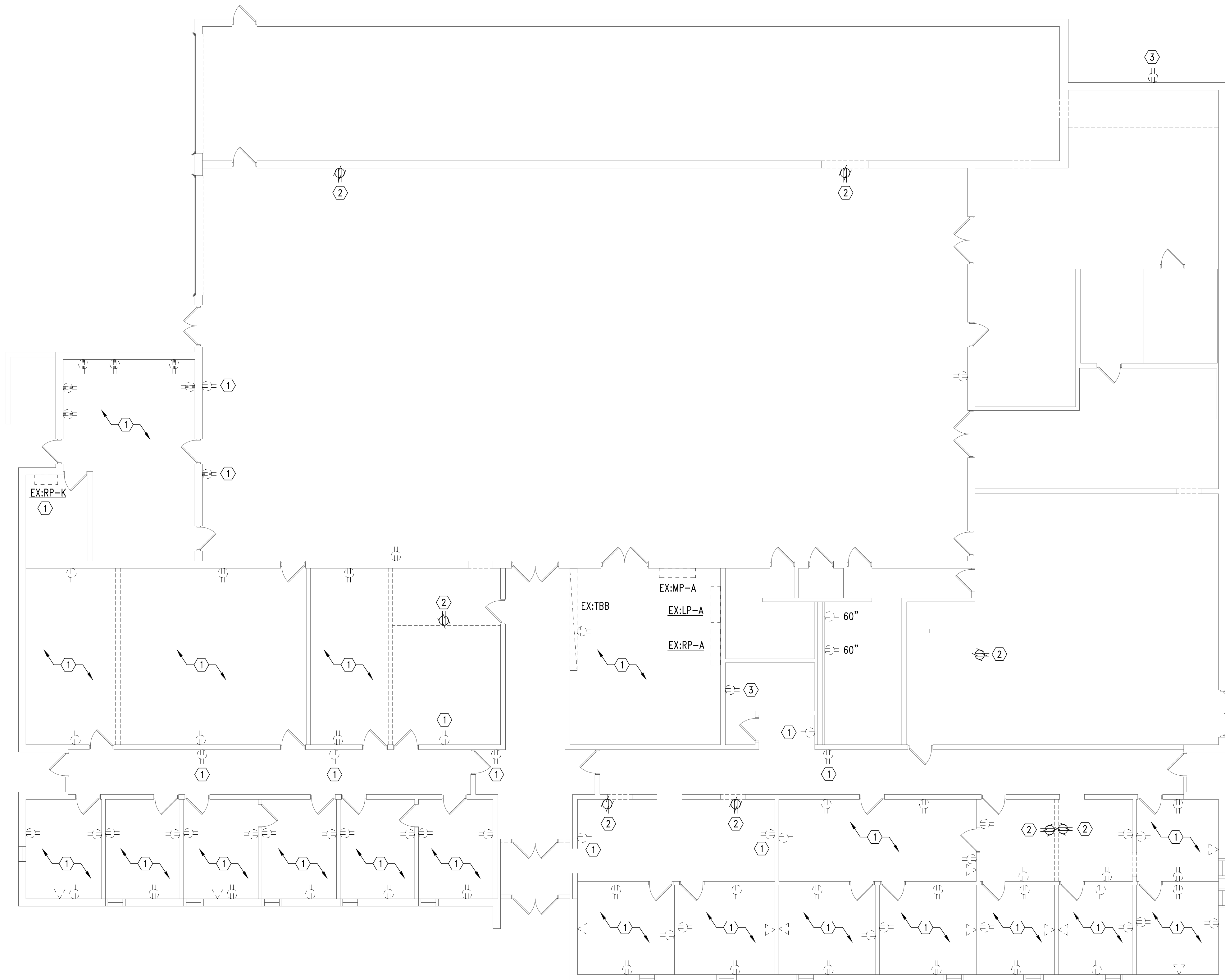


### GENERAL NOTES:

1. CONTRACTOR RESPONSIBLE FOR REMOVING AND REINSTALLING ALL CEILING MOUNTED DEVICES IN ALL AREAS THAT NEW CEILINGS WILL BE INSTALLED. LOWER DEVICES TO NEW CEILINGS AS REQUIRED. INTERCEPT AND EXTEND CIRCUITRY AS NEEDED. VISIT SITE PRIOR TO BIDS TO QUANTIFY THE AMOUNT OF WORK AND BID ACCORDINGLY.
2. REMOVE ALL SWITCHING AS REQUIRED TO ACCOMPLISH NEW SWITCHING REQUIREMENTS. SEE LIGHTING PLANS FOR NEW SWITCH REQUIREMENTS FOR EACH SPACE.
3. CONTRACTOR RESPONSIBLE FOR REMOVING AND PROPERLY DISPOSING OF ALL EXISTING LIGHTS AND LIGHT BULBS.
4. REPLACE ALL EXISTING RECEPTACLES & COVERPLATES WITH NEMA 5-20R COMMERCIAL GRADE TAMPER PROOF RECEPTACLES AND STAINLESS STEEL COVER PLATES. PROVIDE GFCI TYPE IN ALL BATHROOMS, KITCHENS, 6' WITHIN WATER, AND ALL OTHER AREAS REQUIRED BY THE NATIONAL ELECTRICAL CODE.
5. 2. PROVIDE AT ALL EXISTING RECEPTACLES TO BE REPLACED LOCATIONS GROUND STINGERS FOR EACH RECEPTACLE BONDED TO THE EXISTING JUNCTION BOX.
7. WHERE WALLS ARE TO BE REMOVED, CONTRACTOR TO REMOVE ALL ELECTRICAL FROM WALLS AND REROUTE ALL EXISTING ELECTRICAL TO EXISTING DEVICES TO REMAIN. INTERCEPT AND EXTEND CIRCUITRY AS NEEDED TO ACCOMPLISH WORK. VISIT SITE PRIOR TO BIDS TO QUANTIFY THE AMOUNT OF WORK.
8. 8. RELOCATE ANY RECEPTACLE THAT MAY BE COVERED UP BY NEW WALL. RELOCATE TO NEW WALL. INTERCEPT AND EXTEND EXISTING CIRCUITRY. RECEPTACLES SHOWN ON THIS PLAN MAY BE OFFSET FROM THE AS-BUILT CONDITIONS. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDS TO VERIFY.

#### EXISTING RACEWAYS:

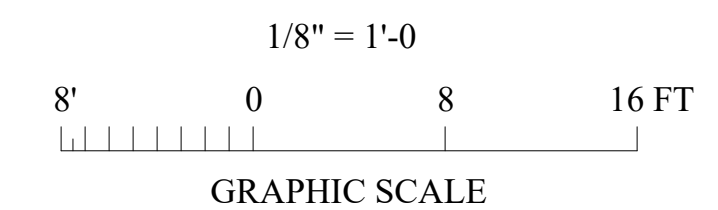
ELECTRICAL CONTRACTOR SHALL SUPPORT ALL EXISTING RACEWAYS TO REMAIN PER THE NATIONAL ELECTRICAL CODE. PROVIDE ALL EXISTING OPEN JUNCTION BOXES WITH COVERS AND PROVIDE PUSH PENNIES TO ANY EXISTING OPEN KNOCKOUTS. THE EXISTING OVERHEAD CONDUIT SYSTEM IS CURRENTLY NOT SUPPORTED CORRECTLY AND THERE IS OPEN JUNCTION BOXES AND KNOCKOUTS. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE TO CORRECT ALL THESE ITEMS IN THEIR BASE BID.



1

### FLOOR PLAN DEMOLITION - POWER & AUXILIARY

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



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GA#22-115

SHEET TITLE : FLOOR PLAN DEMOLITION  
POWER & AUXILIARY

MCKEE JOB # : 21.239

PSCA # :

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RENOVATIONS  
TO THE

CLAY COUNTY CAREER ACADEMY

FOR THE

CLAY COUNTY BOARD of EDUCATION

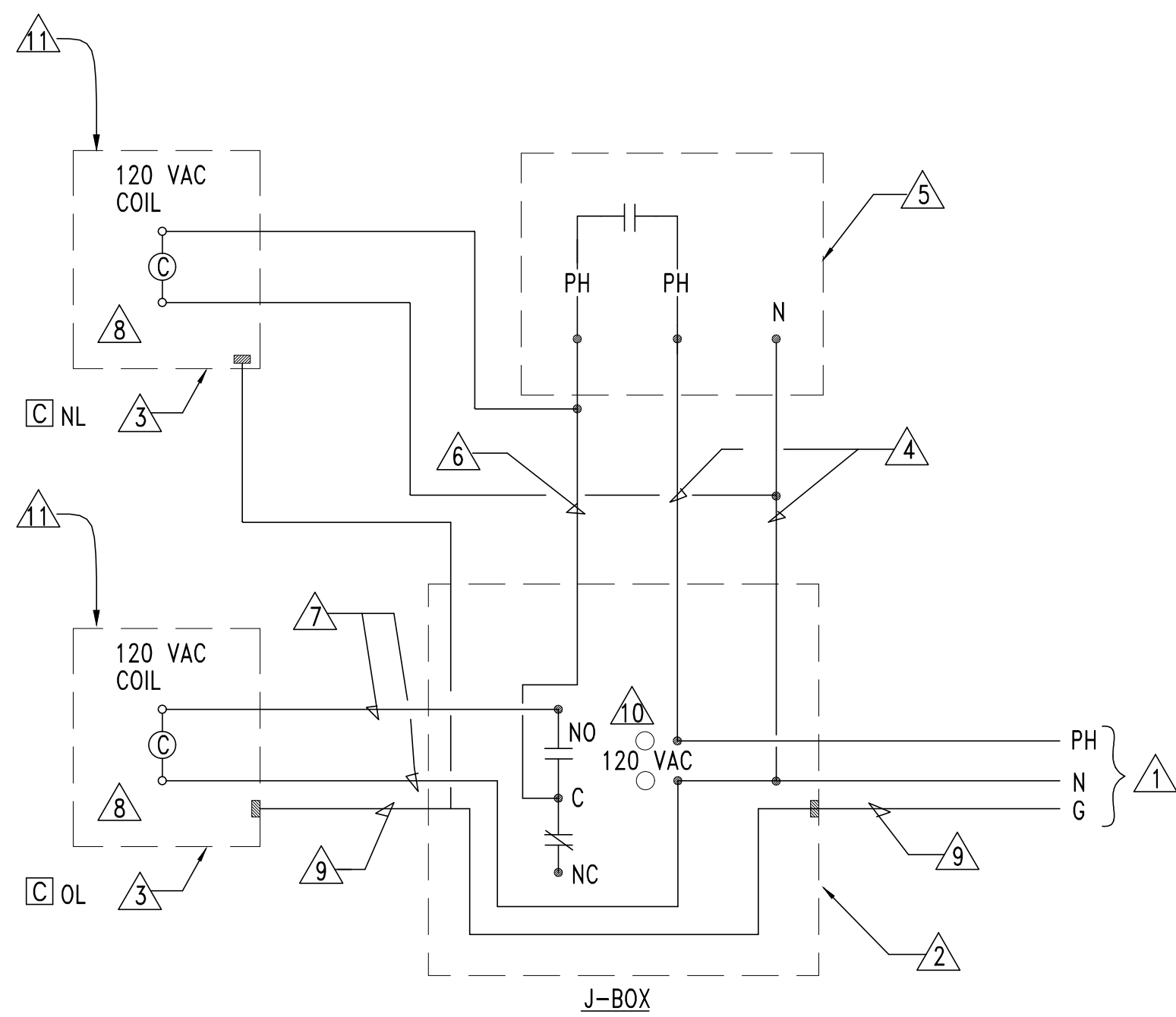
ASHLAND, ALABAMA

**MCKEE and ASSOCIATES**  
ARCHITECTS, INC.

631 SOUTH HULL STREET • MONTGOMERY, ALABAMA 36104 (334) 834-9933







2 DETAIL - TYPICAL OPERATION OF TIME SWITCH/PHOTO-CELL/CONTACTOR  
NO SCALE

- KEYED NOTES**
- 1. POWER SUPPLY - 120V, 1PH, 60HZ
  - 2. TIME SWITCH ENCLOSURE - NEMA 1 UNLESS NOTED OTHERWISE
  - 3. CONTACTOR ENCLOSURE - NEMA 1 UNLESS NOTED OTHERWISE
  - 4. POWER TAP TO PHOTO-CELL IN GRC
  - 5. TURN-LOCK PHOTO-CELL, SEE DETAIL
  - 6. SWITCH LEG RETURN IN GRC
  - 7. POWER TO CONTACTOR COIL
  - 8. LIGHTING CONTACTOR [NL] & [OL] AS FOLLOWS:
    - NEMA ICS 2-211B INDUSTRIAL DUTY TYPE
    - ELECTRICALLY OPERATED-ELECTRICALLY HELD
    - RATING AND NUMBER OF POLES INDICATED
    - CONTACTS SHALL BE SILVER ALLOY, DOUBLE-BREAK, SUITABLE FOR TUNGSTEN, BALLAST LIGHTING, RESISTANCE AND MOTOR LOADS
    - FUSING FOR CONTROL CIRCUIT
  - 9. GROUND CONDUCTOR - BOND TO EACH ENCLOSURE AND INSTALL IN EACH CONDUIT SYSTEM
  - 10. DIGITAL TIME SWITCH AS FOLLOWS:
    - ONE CHANNEL WITH 24 HOUR, SEVEN DAY PROGRAMMING AND SKIP-A-DAY FEATURE
    - INPUT: 120 VAC, 60HZ
    - OUTPUT: DPST DRY CONTACTS (UNPOWERED)
    - HEAVY DUTY CONTACTS RATED 20 AMPERE RESISTIVE AT 120 VAC
    - TEMPERATURE RANGE: -20 TO +60 DEGREES CELSIUS
    - RELATIVE HUMIDITY: 0 TO 90% RH
    - CLOCK ACCURACY: ±2 MINUTES PER YEAR
    - LED INDICATION OF TIME AND LOAD STATUS
    - FULL WEEK'S RESERVE POWER (BATTERY BACK-UP)
  - 11. PROVIDE NUMBER OF POLES REQUIRED.

**GENERAL NOTES:**

- ALL OCCUPANCY SENSORS LOCATIONS ARE APPROXIMATE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EXACT MOUNTING AND SPACING REQUIREMENTS PRIOR TO INSTALLATION.
- ULTRASONIC CEILING MOUNTED OCCUPANCY SENSORS SHALL BE LOCATED A MINIMUM OF SIX (6) FEET FROM HVAC SUPPLY/RETURN VENTS.
- CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS FOR OCCUPANCY SENSORS, FOLLOWING THE MANUFACTURER'S RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PACK PLACEMENT.
- CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED NUMBER OF POWER PACKS FOR OCCUPANCY SENSORS AND THE FOLLOWING:
  - a. ONE POWER PACK IS REQUIRED FOR EACH CONTROLLED CIRCUIT.
  - b. REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR MAXIMUM NUMBER OF SENSORS CONNECTED TO A POWER PACK.
  - c. IF MULTIPLE CIRCUITS OR DUAL SWITCHING ARE TO BE CONTROLLED BY OCCUPANCY SENSORS, PROVIDE ALL ADDITIONAL AUXILIARY RELAYS AND POWER PACKS AS NEEDED.
- OCCUPANCY SENSORS MOUNTED OVER DOORWAYS SHALL BE PLACED ONE (1) FOOT INSIDE THRESHOLD.
- OCCUPANCY SENSORS IN CLASSROOMS SHALL HAVE THE WALK-THROUGH FEATURE DISABLED. UNLESS SPECIFICALLY RECOMMENDED BY MANUFACTURER.
- SEE POWER PLANS FOR PANEL LOCATIONS.
- PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRED HOMERUN PER NEC.
- PROVIDE LOW VOLTAGE CABLING AS REQUIRED TO EACH LIGHT FIXTURE FROM THE 0-10V DIMMING SWITCH AS REQUIRED TO ACCOMPLISH THE 0-10V DIMMING.
- EXTERIOR EXPOSED CONDUIT WILL NOT BE ALLOWED FOR EXTERIOR LIGHTS. RUN ALL CONDUIT INTERIOR OF THE BUILDING. THEN POKE THRU WALL TO THE EXTERIOR AS NEEDED.
- CONTRACTOR SHALL INSURE THAT NEW DIMMER SWITCHES FIT AS REQUIRED IN EXISTING DOUBLE GANG SWITCH PLACEMENT.
- PROVIDE ADDITIONAL GROUNDING AS NEEDED TO MAKE LIGHTING CONTROLS AND LED LIGHTING TO FUNCTION CORRECTLY. RE-PULL EXISTING LIGHTING CIRCUITS WITH NEW CONDUCTORS AND GROUNDS IF EXISTING LIGHTING CIRCUITRY IS MISSING GROUNDS. VISIT SITE PRIOR TO BIDS TO QUANTIFY.
- CONTRACTOR SHALL INCLUDE IN THEIR BASE BID PRICE TWO ADDITIONAL 20A/1P HOMERUN CIRCUITS TO USE IF ANY REUSED LIGHTING CIRCUIT BECOME OVER LOADED.

**SHEET NOTES:**

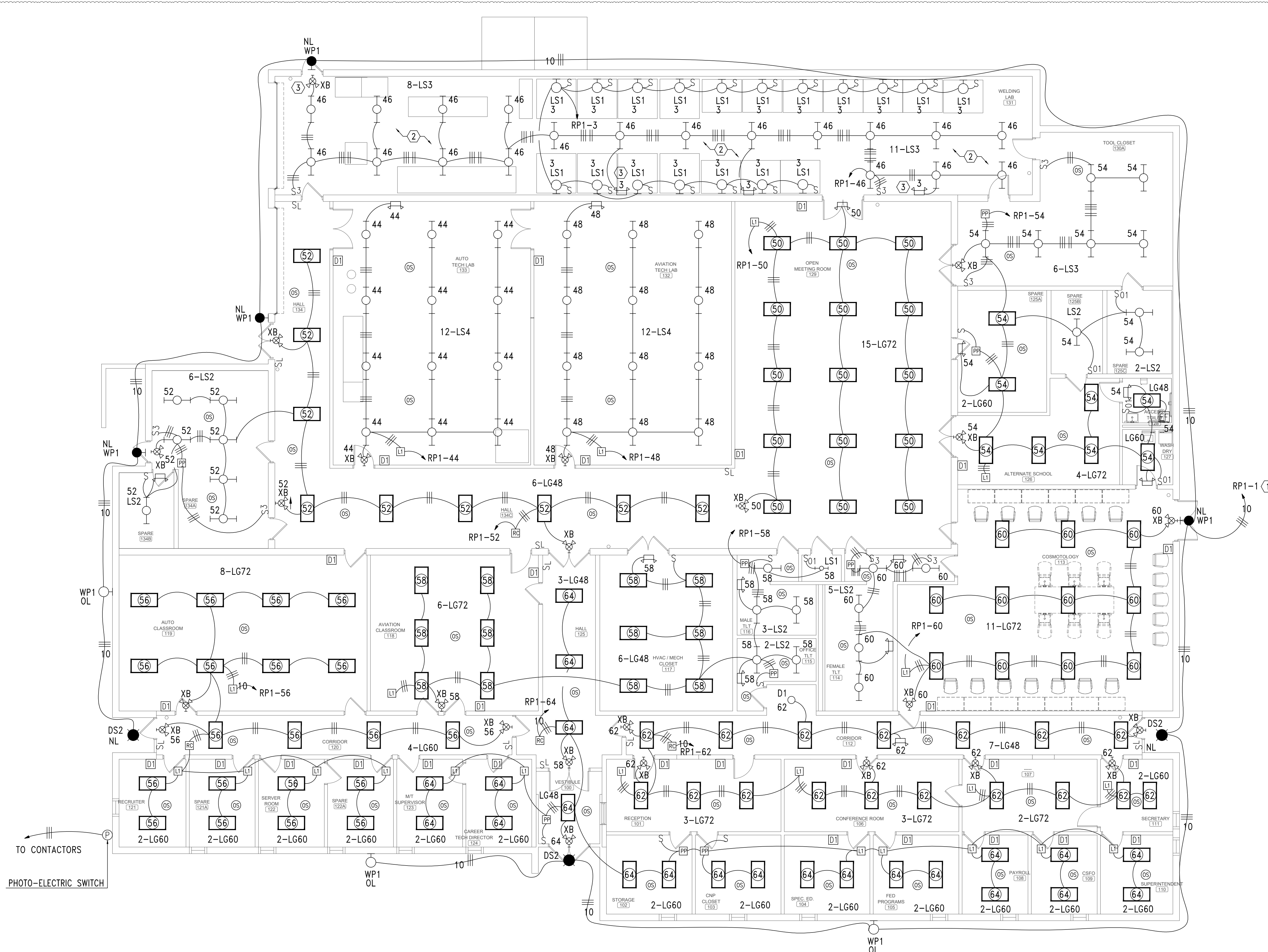
- ROUTE EXTERIOR LIGHTING CIRCUITS THRU CONTACTORS AS SHOWN IN DETAIL 3. "NL" DESIGNATES LIGHTS ARE PHOTOCELL ON/PHOTOCELL OFF. "OL" DESIGNATES PHOTOCELL ON/TIMECLOCK OFF.
- DUE TO SAFETY CONCERNS OF LIGHT TURNING OFF WHILE OPERATING EQUIPMENT, THE OWNER HAS ASKED TO ELIMINATE THE LIGHTING CONTROLS IN THIS ROOM.
- PROVIDE WIREGUARD ON WALL MOUNTED LIGHT.

**ROOM CONTROLLER NOTES:**

- CONTRACTOR SHALL LOCATE ALL ROOM CONTROLLERS ABOVE DOORS IN EACH ROOM 6" ABOVE CEILING GRID. PROVIDE ACCESS PANELS WHERE LOCATED ABOVE HARD CEILINGS OR MOUNT IN UTILITY TYPE ROOMS WHENEVER POSSIBLE. ROOM CONTROLLERS SHOWN ON THIS PLAN IS DIAGRAMMATIC FOR CIRCUITRY. DO NOT USE THESE FOR ACTUAL LOCATIONS. PROVIDE A WHITE PHENOLIC LABEL WITH 1" BLACK TEXT THAT READS "RC" GLUED ON CEILING GRID UNDER POWER PACK FOR EACH LOCATION FOR FUTURE MAINTENANCE.

**PHOTOCONTROL OF LIGHTING:**

- PHOTOCONTROL OF LIGHT FIXTURES WILL NOT BE REQUIRED FOR THE AREAS ON THIS PAGE. THE PRIMARY SIDELIGHTED AREA WILL NOT HAVE WATTAGES EXCEEDING 150W.



1 FLOOR PLAN - LIGHTING  
SCALE: 1/8"=1'-0"

1/8" = 1'-0"  
8' 0 8 16 FT  
GRAPHIC SCALE

**Gunn & Associates, P.C.**  
Consulting Engineers  
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Tel: 334.285.1273  
12000 Providence Park, Suite 200  
Birmingham, AL 35242  
GA#22-115

SHEET TITLE : FLOOR PLAN - LIGHTING

MCKEE JOB # : 21.239

PSCA # :

DRAWN BY : J. TILLERY

DATE : 05.18.2022

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RENOVATIONS  
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**MCKEE and ASSOCIATES**  
ARCHITECTS, INC.  
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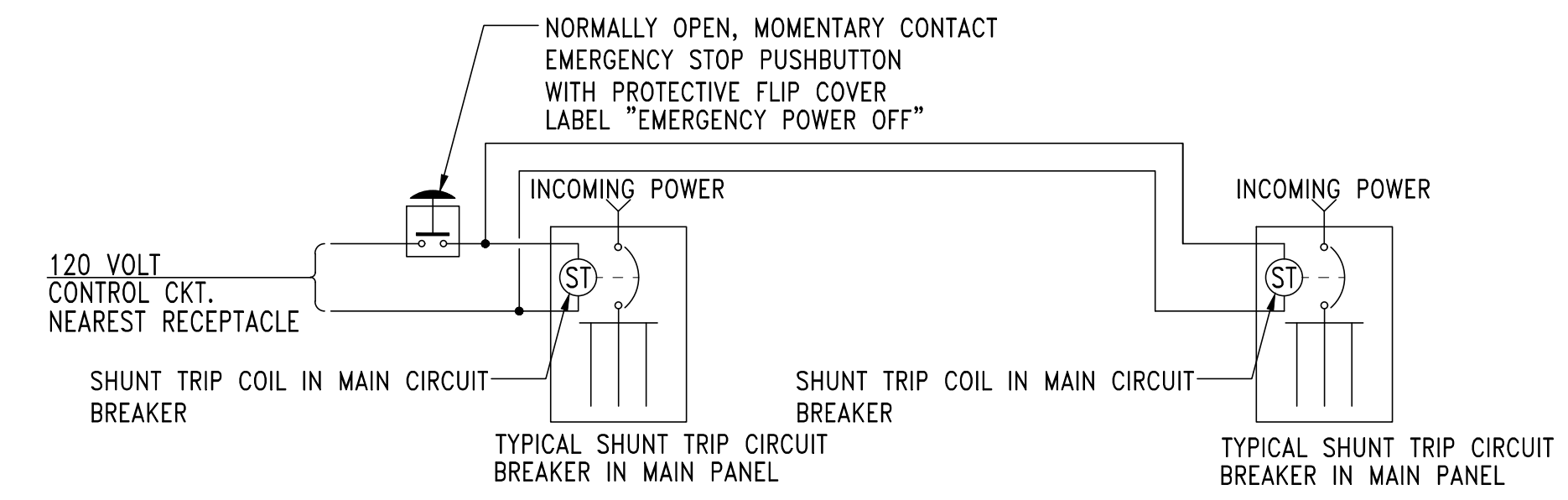


GENERAL NOTES:

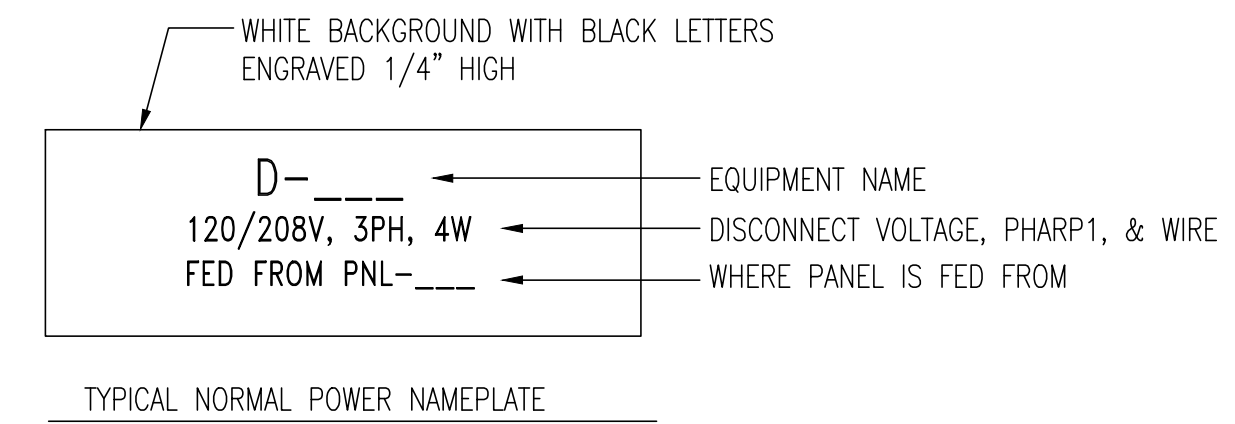
1. PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
2. COORDINATE EXACT LOCATION OF ALL ELECTRICAL WITH MILLWORK PROVIDERS PRIOR TO ROUGH-IN.
3. PROVIDE ALL DISCONNECTS WITH NAMEPLATE PER DETAIL (2) THIS SHEET. PROVIDE ALL DISCONNECTS IN SHOP AREAS WITH NEUTRALS.
4. CONTRACTOR TO CONNECT OWNER'S EQUIPMENT. PROVIDE IN BASE BID THE COST OF FUSING AND PROVIDING THE PROPER NEMA CONFIGURATION RECEPTACLES TO CONNECT OWNER'S EQUIPMENT.

SHEET NOTES:

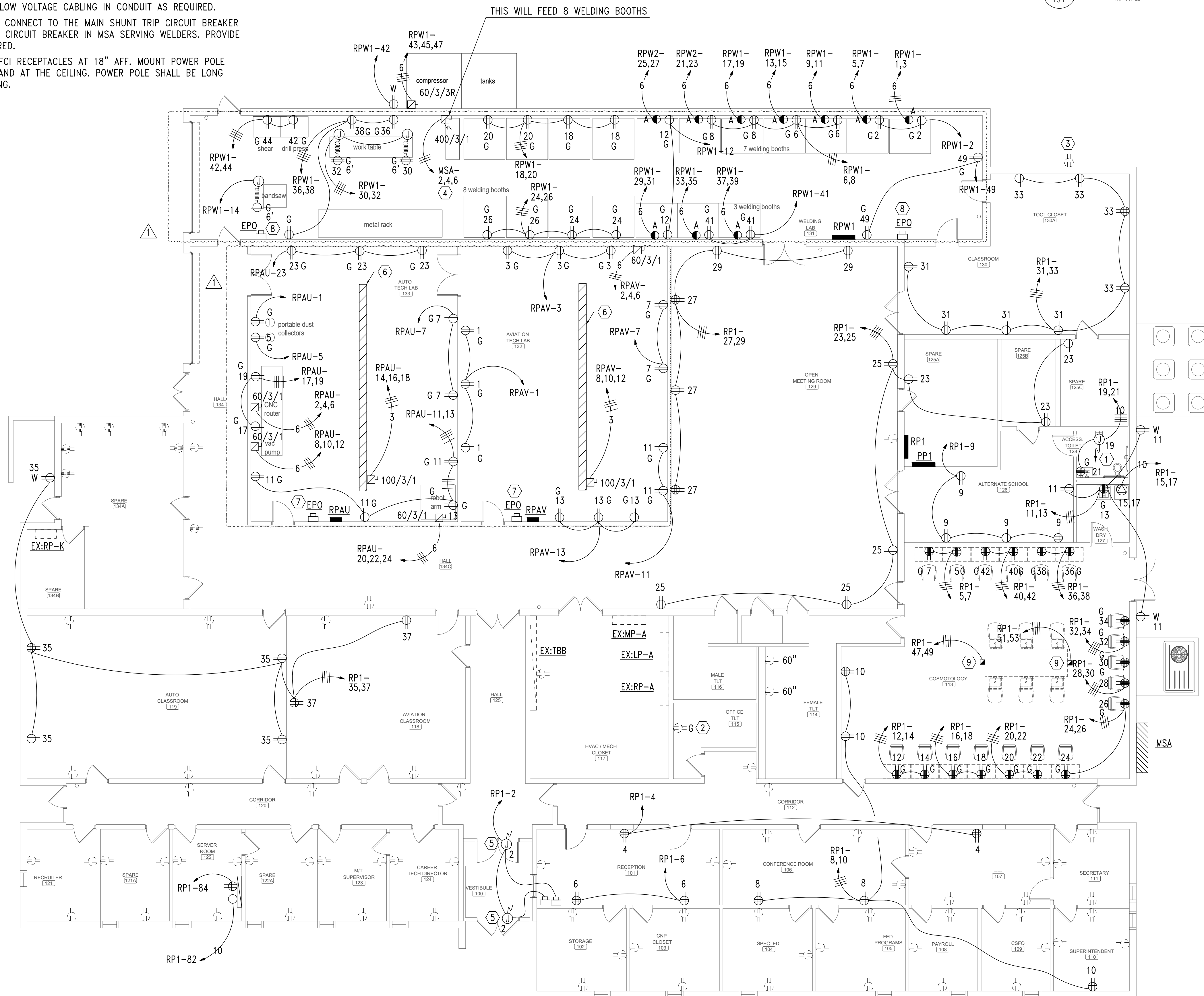
1. PROVISIONS FOR ELECTRIC HAND DRYER. MOUNT JUNCTION BOX BEHIND PAPER TOWEL DISPENSER AND WALL BLANK OFF. CIRCUIT BREAKERS FEEDING CIRCUITRY SHALL BE SWITCHED OFF AND WIRE DISCONNECTED.
2. EXISTING RECEPTACLE THAT HAS BEEN REPLACED ONE FOR ONE WITH NEW GFCI TYPE RECEPTACLE. CONTRACTOR SHALL INTERCEPT AND EXTEND EXISTING RECEPTACLE AS REQUIRED.
3. EXISTING RECEPTACLE THAT HAS BEEN REPLACED ONE FOR ONE WITH NEW WEATHERPROOF GFCI TYPE RECEPTACLE. CONTRACTOR SHALL INTERCEPT AND EXTEND EXISTING CIRCUITRY AS REQUIRED.
4. PROVIDE NEW 250A/3P SHUNT TRIP CIRCUIT BREAKER IN NEW MAIN PANEL MSA. PROVIDE 4#250KCMIL & 1#4GRD - 3"C.
5. PROVIDE POWER TO THE ELECTRIC STRIKE OF THE SECURE DOOR. PROVIDE CONDUIT AND LOW VOLTAGE CABLE TO CONTROL THE ELECTRIC STRIKE FROM A PUSHBUTTON STATION ON THE FRONT DESK.
6. PROVIDE 30' OF 120/240V DELTA, 3-PHASE, 4-WIRE, 100-AMP BUS DUCT SUSPENDED FROM CEILING. BUS DUCT TO PROVIDED WITH A MINIMUM 12 BUS PLUG OUTLETS AND THREE 30A/3P BUS PLUG DISCONNECTS AND ONE 60A/3P BUS PLUG OUTLETS EVENLY DISTRIBUTED ALONG BUS DUCT. ALUMINUM BUSSING IS ACCEPTABLE FOR THIS BUS DUCT.
7. PROVIDE EMERGENCY POWER OFF SWITCH AND CONNECT TO THE MAIN SHUNT TRIP CIRCUIT BREAKER OF THE PANEL SERVING THIS AREA. PROVIDE LOW VOLTAGE CABLING IN CONDUIT AS REQUIRED.
8. PROVIDE EMERGENCY POWER OFF SWITCH AND CONNECT TO THE MAIN SHUNT TRIP CIRCUIT BREAKER OF THE PANEL SERVING THIS AREA AND 250A CIRCUIT BREAKER IN MSA SERVING WELDERS. PROVIDE LOW VOLTAGE CABLING IN CONDUIT AS REQUIRED.
9. PROVIDE ALUMINUM POWER POLE WITH TWO GFCI RECEPTACLES AT 18" AFF. MOUNT POWER POLE SUCH THAT IT IS SUPPORTED AT THE FLOOR AND AT THE CEILING. POWER POLE SHALL BE LONG ENOUGH TO GO FROM FLOOR TO ABOVE CEILING.



3 WIRING DIAGRAM - TYPICAL DUAL PANEL SHUNT TRIP "EPO"  
E3.1 NO SCALE



2 DETAIL - TYPICAL DISCONNECT NAMEPLATE  
E3.1 NO SCALE



1 FLOOR PLAN - POWER  
E3.1 SCALE: 1/8"=1'-0"

1/8" = 1'-0"  
8' 0 8 16 FT  
GRAPHIC SCALE

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GA022-115

SHEET TITLE : FLOOR PLAN - POWER

MCKEE JOB # : 21.239

PSCA # :

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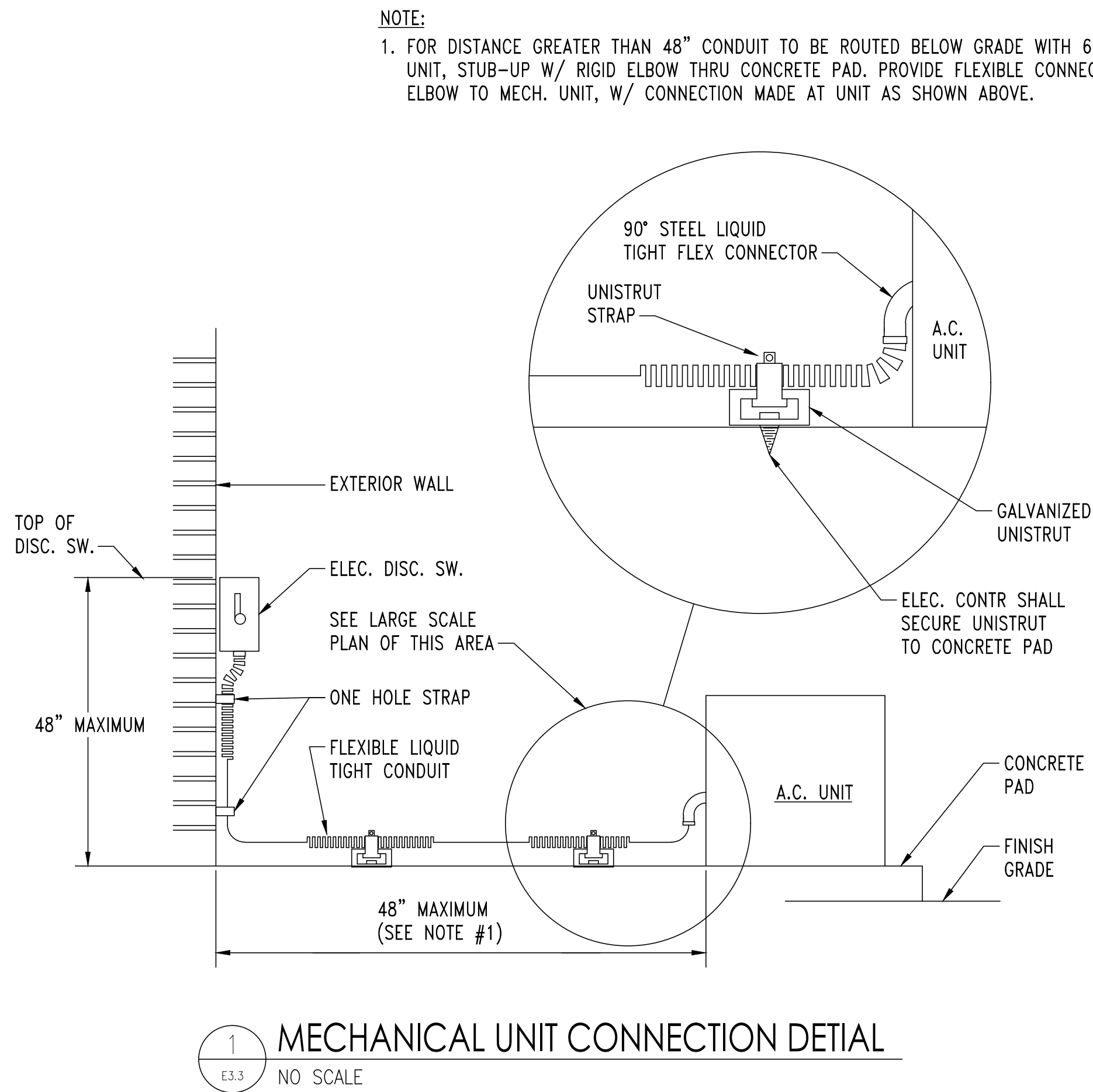
**MCKEE and ASSOCIATES**  
ARCHITECTS, INC.  
631 SOUTH HULL STREET · MONTGOMERY, ALABAMA 36104 (334) 834-9933





17.567.27.13.4.26.4.05.21.17.11

GENERAL EQUIPMENT SCHEDULE									
EQUIPMENT MARK:	EQUIPMENT DESCRIPTION:	VOLTAGE/PHASE:	ELECTRICAL CHARACTERISTICS:			DISCONNECT:	FUSE:	HOMERUN:	FEEDER:
			HP	KW	AMPS				
AC-1	AIR COMPRESSOR	240V/3PH	7 1/2	----	----	60/3/3R	F	MSA 19,21,23	3#6 & 1#10GRD - 1 1/4"C
DH-1	DEHUMIDIFIER	120V/1PH	----	0.6	----	TS	----	PP1 - 38	2#10 & 1#10GRD - 3/4"C
DH-2	DEHUMIDIFIER	120V/1PH	----	0.6	----	TS	----	PP1 - 38	2#10 & 1#10GRD - 3/4"C
DH-3	DEHUMIDIFIER	120V/1PH	----	0.6	----	TS	----	RP1 - 57	2#10 & 1#10GRD - 3/4"C
DH-4	DEHUMIDIFIER	120V/1PH	----	0.6	----	TS	----	RP1 - 57	2#10 & 1#10GRD - 3/4"C
EF-1	EXHAUST FAN	120V/1PH	1/4	----	----	TS	----	RP1 - 39	2#10 & 1#10GRD - 3/4"C
EF-3	EXHAUST FAN	120V/1PH	1/2	----	----	TS	----	RP1 - 41	2#10 & 1#10GRD - 3/4"C
WEF-1	EXHAUST FAN	240V/3PH	1 1/2	----	----	30/3/3R	F	PP1 - 25,27,29	3#10 & 1#10GRD - 3/4"C
WEF-2	EXHAUST FAN	240V/3PH	1 1/2	----	----	30/3/3R	F	PP1 - 31,33,35	3#10 & 1#10GRD - 3/4"C
GFMAL-1	ELECT. UNIT HEATER	240V/3PH	3	----	----	30/3/3R	F	PP1 - 20,22,24	3#10 & 1#10GRD - 3/4"C
GFMAL-1	ELECT. UNIT HEATER	240V/3PH	3	----	----	30/3/3R	F	PP1 - 26,28,30	3#10 & 1#10GRD - 3/4"C
MD-1,2,1A,1B,2A,2B	MOTORIZED DAMPER	120V/1PH	----	0.200	----	TS	----	PP1 - 37	2#12 & 1#12GRD - 3/4"C
MD-3A,3B,4A,4B,5A,5B	MOTORIZED DAMPER	120V/1PH	----	0.200	----	TS	----	RP1 - 55	2#12 & 1#12GRD - 3/4"C
MD-6A, 6B, 7A	MOTORIZED DAMPER	120V/1PH	----	0.200	----	TS	----	PP1 - 41	2#12 & 1#12GRD - 3/4"C
IHP-1	INDOOR HEAT PUMP	240V/3PH	----	----	50	60/3/1	F	PP1 - 1,3,5	3#6 & 1#10GRD - 1 1/4"C
IHP-2	INDOOR HEAT PUMP	240V/3PH	----	----	50	60/3/1	F	PP1 - 7,9,11	3#6 & 1#10GRD - 1 1/4"C
IHP-3	INDOOR HEAT PUMP	240V/3PH	----	----	50	60/3/1	F	PP1 - 13,15,17	3#6 & 1#10GRD - 1 1/4"C
IHP-4	INDOOR HEAT PUMP	240V/3PH	----	----	32	60/3/1	F	PP1 - 19,21,23	3#6 & 1#10GRD - 1 1/4"C
IHP-5	INDOOR HEAT PUMP	240V/3PH	----	----	32	60/3/1	F	PP1 - 25,27,29	3#6 & 1#10GRD - 1 1/4"C
IHP-6	INDOOR HEAT PUMP	240V/3PH	----	----	32	60/3/1	F	PP1 - 31,33,35	3#6 & 1#10GRD - 1 1/4"C
OHP-1	OUTDOOR HEAT PUMP	240V/3PH	----	----	18	30/3/3R	F	PP1 - 2,4,6	3#10 & 1#10GRD - 3/4"C
OHP-2	OUTDOOR HEAT PUMP	240V/3PH	----	----	18	30/3/3R	F	PP1 - 8,10,12	3#10 & 1#10GRD - 3/4"C
OHP-3	OUTDOOR HEAT PUMP	240V/3PH	----	----	18	30/3/3R	F	PP1 - 14,16,18	3#10 & 1#10GRD - 3/4"C
OHP-4	OUTDOOR HEAT PUMP	240V/3PH	----	----	17	30/3/3R	F	PP1 - 20,22,24	3#10 & 1#10GRD - 3/4"C
OHP-5	OUTDOOR HEAT PUMP	240V/3PH	----	----	13	30/3/3R	F	PP1 - 26,28,30	3#12 & 1#12GRD - 3/4"C
OHP-6	OUTDOOR HEAT PUMP	240V/3PH	----	----	13	30/3/3R	F	PP1 - 32,34,36	3#12 & 1#12GRD - 3/4"C
PAC-1	PACKAGED HEAT PUMP	240V/3PH	----	----	65	100/3/3R	F	EX.PNL SE* (NOTE 10)	3#4 & 1#8GRD - 1 1/2"C
GWH-1	ELEC. WATER HTR	120V/1PH	----	0.200	----	TS	----	RP1 - 43	2#12 & 1#12GRD - 3/4"C
GWH-2	ELEC. WATER HTR	120V/1PH	----	0.200	----	TS	----	RP1 - 45	2#12 & 1#12GRD - 3/4"C
NOTES: 1. COORDINATE WITH MANUFACTURER'S CUTSHEETS OR NAMEPLATE DATA AND ADJUST OVERCURRENT PROTECTION AS NEEDED TO PROTECT EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND TO COMPLY WITH NEC AND ALL LOCAL CODES. COORDINATION SHALL BE DONE PRIOR TO BIDS AND ACCOUNTED FOR IN THE CONTRACTOR'S BID PRICE. 2. ALL DISCONNECTS SHALL BE HEAVY DUTY TYPE. 3. ALL FUSES SHALL BE SIZED PER NAMEPLATE DATA. 4. "NF" - NON-FUSED 5. "F" - FUSED 6. "TS" MANUAL MOTOR STARTER WITH THERMAL OVERLOAD ("W" - WEATHERPROOF) ("30-AMP" - 30-AMP RATED) 7. PROVIDE INTERCONNECTING RELAY SUCH THAT FAN IS CONTROLLED BY LIGHTING. 8. "WP" - WEATHERPROOF ENCLOSURE. 9. CONTRACTOR SHALL COORDINATE EXACT REQUIREMENTS AND LOCATIONS FOR ALL CIRCULATING PUMPS AND TIME CLOCKS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. 10. CONTRACTOR SHALL ADD (1) ONE NEW 70A/3P CIRCUIT BREAKER IN EXISING PANEL SE AS REQUIRED.									



1  
E3.3  
MECHANICAL UNIT CONNECTION DETAIL  
NO SCALE



SHEET TITLE : GENERAL EQUIPMENT  
SCHEDULE & DETAILS

MCKEE JOB # : 21.239

PSCA # :

DRAWN BY : J. TILLERY

DATE : 05.18.2022

REVISED DATE : 06-08-2022

REVISED DATE :

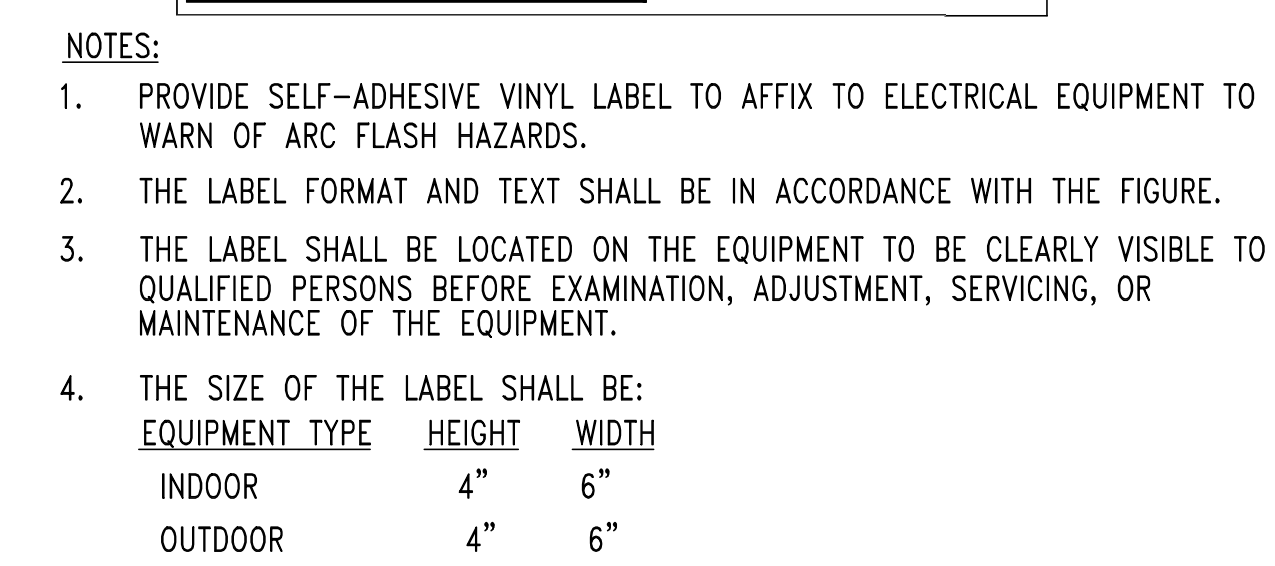
REVISED DATE :

SHEET NO. : E3.3





1. PANELBOARDS SHALL BE INSTALLED AND ALL CLEARANCES MAINTAINED IN ACCORDANCE WITH THE NEC.
2. ALL PANELBOARDS SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH THAT LISTING.
3. PANELBOARDS SHALL BE FURNISHED COMPLETE WITH THE PROPERLY SIZED ENCLOSURE, INTERNAL HARDWARE, COMPONENTS, SUPPORTING STRUCTURES, ETC., FOR A COMPLETE INSTALLATION.
4. FURNISH EACH PANELBOARD WITH A GROUND BAR BONDED TO THE PANEL ENCLOSURE.
5. THE TERMINATION POINT OF THE FEEDER SERVING EACH ASSEMBLY SHALL BE AT THE NEAREST POINT OF FEEDER ENTRY INTO THE PANEL, SO AS TO MINIMIZE CONDUCTOR FILL IN THE ENCLOSURE. COORDINATE TOP/BOTTOM FEED PANELBOARD PROVISIONS WITH EACH FEEDER INSTALLATION.
6. PROVIDE THE PROPER SIZE AND QUANTITY OF CONDUCTOR TERMINATION POINTS OR LUGS (MULTIPLE LUGS WHEN PARALLEL FEEDERS ARE USED) ON BUSES AND CIRCUIT BREAKERS FOR THE RESPECTIVE SIZE AND NUMBER OF CONDUCTORS INDICATED.
7. ALL GROUND-MOUNTED PANELBOARDS SHALL BE PROVIDED WITH AT LEAST SIX (6) 3/4" SPARE CONDUITS SUBMITTED TO ABOVE THE NEAREST ACCESSIBLE CEILING.
8. PANELBOARDS SHALL BE FULLY RATED. SERIES RATED PANELBOARDS WILL NOT BE ACCEPTED.
9. ALL PANELBOARDS SHALL BE CLEARLY MARKED TO COMPLY WITH NEC ARTICLE 110.16 WITH REGARD TO POTENTIAL HAZARDS OF ARC FLASH.
10. ALL PANELBOARDS SHALL BE "DOOR-IN-DOOR" OR "HINGED-FRONT-TRIM" CONSTRUCTION.
11. COMPLY WITH NEC ARTICLE 408.4. PROVIDE A TYPED CIRCUIT DIRECTORY THAT INDICATES WHAT EACH CIRCUIT IS SERVING. FOR LIGHTING AND RECEPTACLE CIRCUITS, INCLUDE THE ROOM NUMBER IN THE CIRCUIT DESCRIPTION ON THE DIRECTORY.
12. EACH PANELBOARD SHALL HAVE A NAMEPLATE AS SHOWN IN DETAIL 1 ON THIS SHEET. ENGINEER WILL NOT PROVIDE FINAL ACCEPTANCE NAMEPLATES ARE PROVIDED.
13. MANUFACTURER THAT WILL BE PROVIDING PANELBOARDS ON THIS PROJECT SHALL BE RESPONSIBLE FOR PERFORMING A SHORT CIRCUIT ANALYSIS AND TIME-CURRENT COORDINATION (TCC) STUDY, WHICH DEMONSTRATES THAT THE UPSTREAM OVERCURRENT PROTECTIVE DEVICE NEAREST TO THE FAULT LOCATION WILL OPERATE BEFORE OVERCURRENT PROTECTIVE DEVICES WHICH ARE FURTHER UPSTREAM (I.E. SELECTIVE COORDINATION). INCLUDE COORDINATION STUDY IN THE SHOP DRAWING PACKAGE FOR THE PANELBOARDS FOR REVIEW BY THE ENGINEER OF RECORD. AIC RATINGS MAY BE LOWERED BASED ON STUDY.



## NO SCALE

- # ARC FLASH WARNING LABELS

631 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933



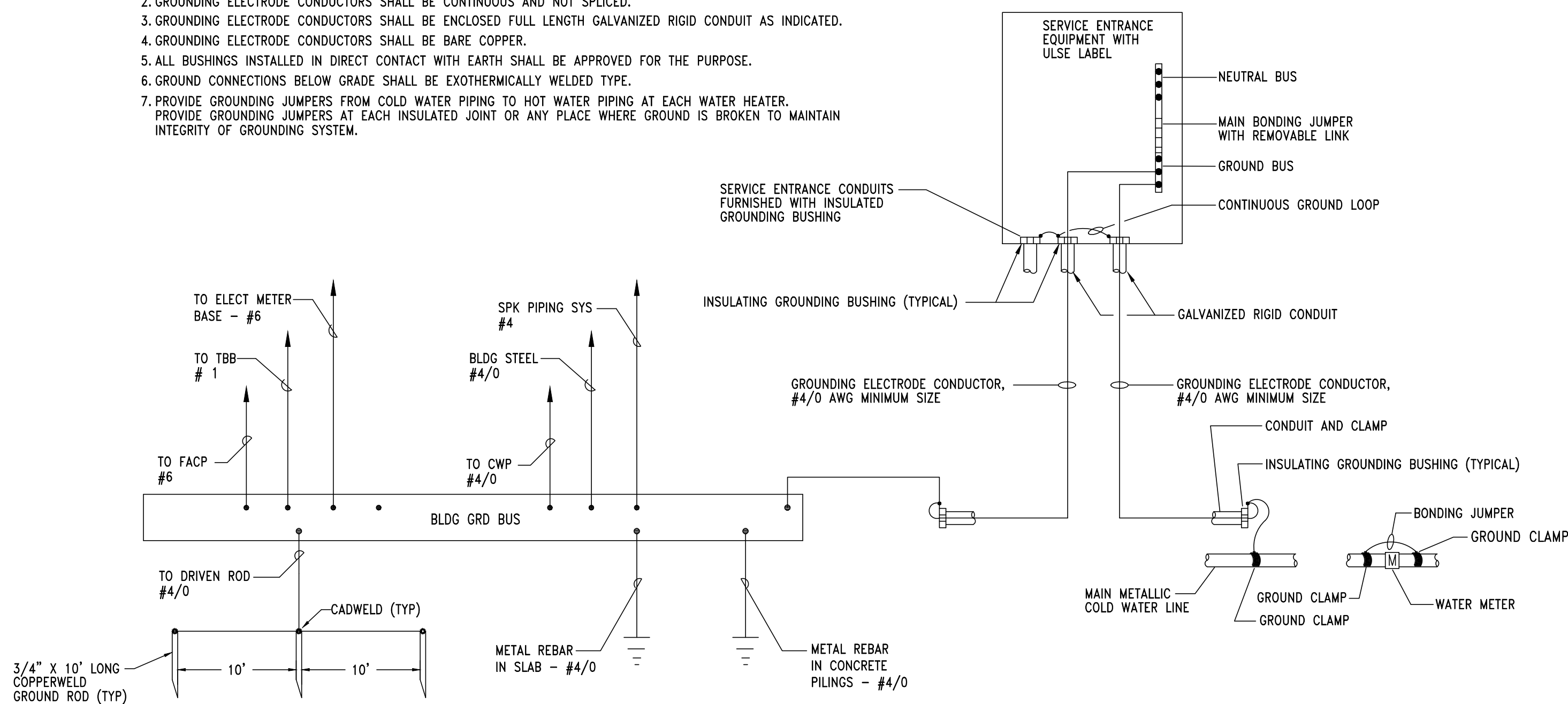
REVISÉ DATE:

SHEET NO. : E5.2



NOTES

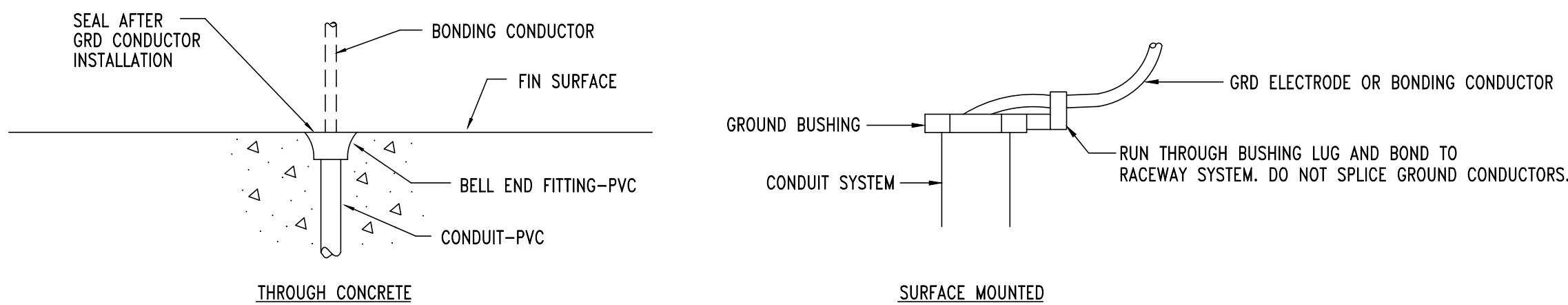
1. GROUNDING ELECTRODE SYSTEM SHALL BE IN ACCORDANCE WITH NEC ARTICLE 250
2. GROUNDING ELECTRODE CONDUCTORS SHALL BE CONTINUOUS AND NOT SPLICED.
3. GROUNDING ELECTRODE CONDUCTORS SHALL BE ENCLOSED FULL LENGTH GALVANIZED RIGID CONDUIT AS INDICATED.
4. GROUNDING ELECTRODE CONDUCTORS SHALL BE BARE COPPER.
5. ALL BUSHINGS INSTALLED IN DIRECT CONTACT WITH EARTH SHALL BE APPROVED FOR THE PURPOSE.
6. GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMICALLY WELDED TYPE.
7. PROVIDE GROUNDING JUMPERS FROM COLD WATER PIPING TO HOT WATER PIPING AT EACH WATER HEATER. PROVIDE GROUNDING JUMPERS AT EACH INSULATED JOINT OR ANY PLACE WHERE GROUND IS BROKEN TO MAINTAIN INTEGRITY OF GROUNDING SYSTEM.



2 DETAIL - SERVICE ENTRANCE GROUNDING INSTALLATION

NOTES

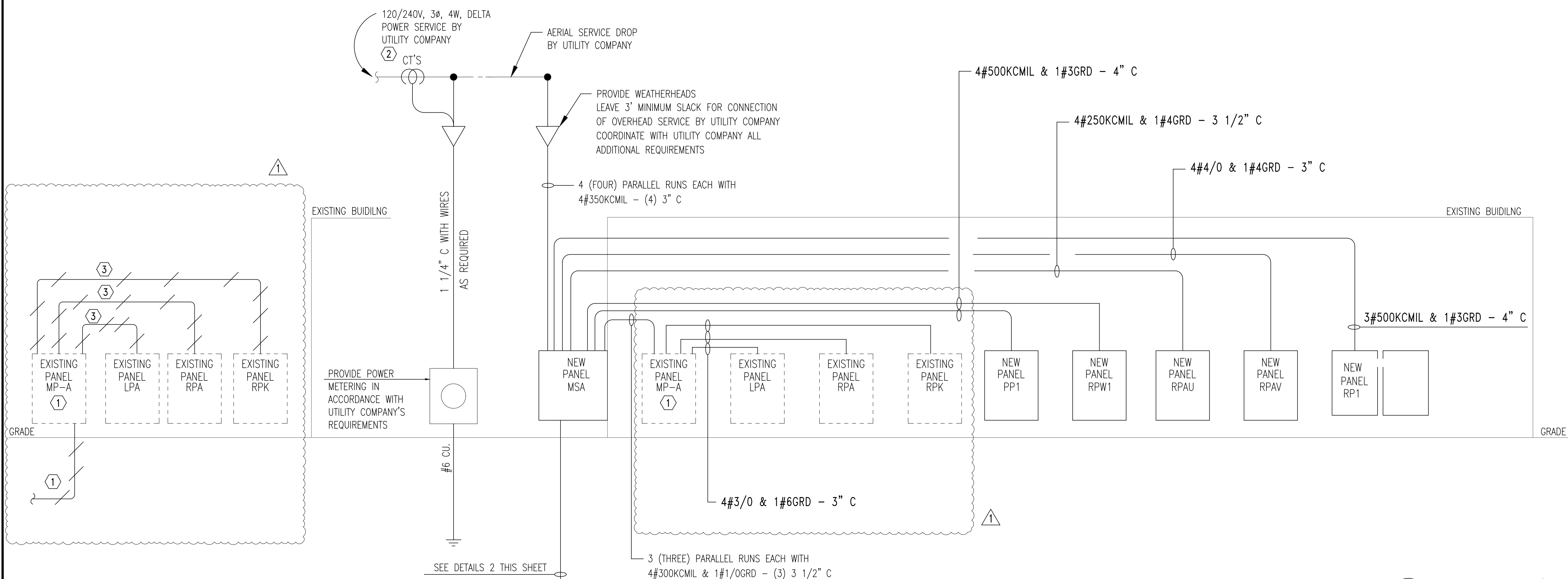
1. ALL GROUND ELECTRODE CONDUCTORS, SYSTEM BONDING CONDUCTORS, ETC., RUN SEPARATELY SHALL BE PROTECTED BY A CONDUIT SYSTEM.
2. ALL SYSTEM GROUNDING OR BONDING CONDUCTORS SHALL GENERALLY BE ENCLOSED BY A GRC CONDUIT. PROVIDE GROUND BUSHINGS ON EACH END AND BOND CONDUCTORS TO RACEWAY SYSTEM.
3. SYSTEM BONDING CONDUCTORS THAT PENETRATE CONCRETE SLABS SHALL BE ENCLOSED BY A PVC CONDUIT. PROVIDE BELL END FITTING ON EACH END AND SEAL THOSE TERMINATING AT A STUB-UP SHALL BE FLUSH WITH FLOOR.



3 DETAIL - TYPICAL GROUND CONDUCTOR IN CONDUIT SYSTEM

SHEET NOTES:

1. CONTRACTOR SHALL REMOVE EXISTING UNDERGROUND SERVICE TO EXISTING SERVICE ENTRANCE PANEL. DISCONNECT THE NEUTRAL AND GROUND BONDING JUMPER. REMOVE BACK TO THE POINT OF SERVICE. EXISTING SERVICE ENTRANCE PANEL IS TO REMAIN AND BE REFEED AS SHOWN BELOW.
2. COORDINATE WITH LOCAL UTILITY COMPANY FOR OVERHEAD SECONDARY TO BE BROUGHT TO BUILDING AND PAY ALL ASSOCIATED FEES. COORDINATE PRIOR TO BIDS AND PAY ALL ASSOCIATED FEES. COORDINATE PRIOR TO BIDS AND BID ACCORDINGLY.
3. REMOVE EXISTING FEEDERS TO EXISTING PANELS AS REQUIRED.



1 OVERHEAD POWER RISER DIAGRAM

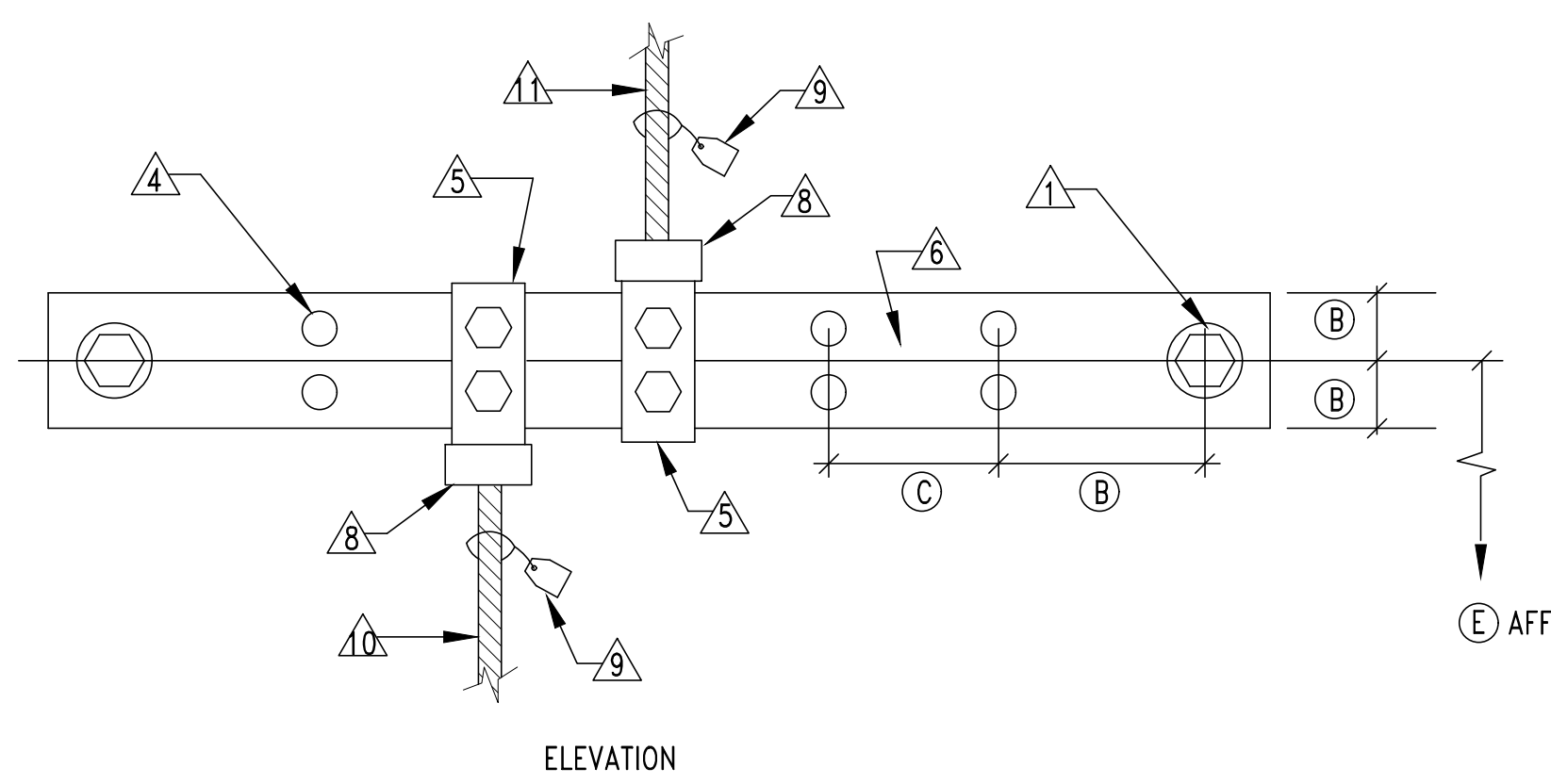
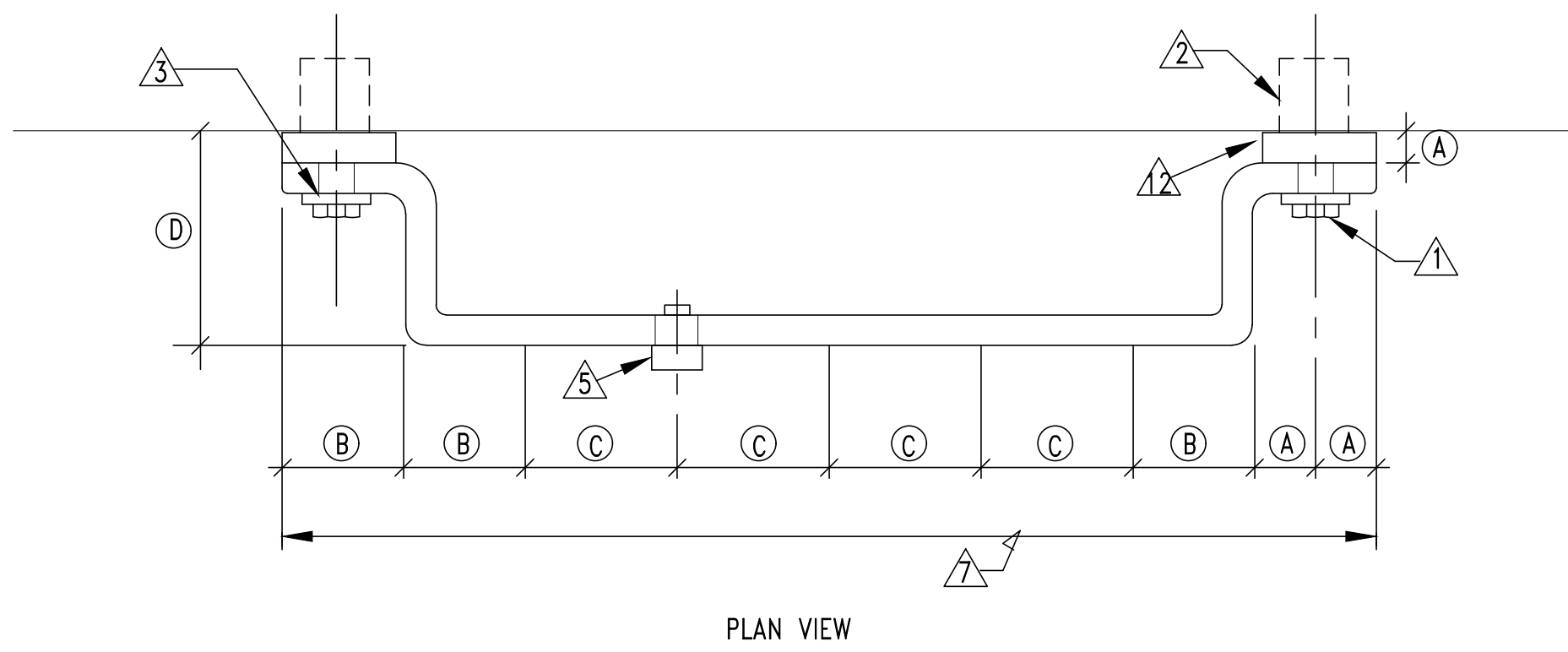
GROUNDING AND BONDING INSTALLATION NOTES

1. ALL GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH THE NEC, NESC, IEEE, ANSI AND UL STANDARDS.
2. ALL DIMENSIONING INDICATED IN THESE DOCUMENTS ARE FOR REFERENCE AND COORDINATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD.
3. THE PURPOSE OF THE GROUNDING AND BONDING SYSTEM IS TO ESTABLISH ALL EQUIPMENT ENCLOSURES, NON-CURRENT CARRYING METALLIC PORTIONS OF THE ELECTRICAL DISTRIBUTION SYSTEM, METAL PIPING, METAL BUILDING FRAME, ETC., AT A ZERO POTENTIAL RELATIVE TO THE EARTH GROUND AND PROVIDE FOR A SAFE, LOW IMPEDANCE RETURN PATH FOR GROUND-FAULT CURRENT. THIS SHALL BE ACCOMPLISHED IN THE FOLLOWING MANNER:
  - a. PROVIDE A SOLIDLY GROUND SECONDARY SYSTEM.
  - b. INTER-CONNECT ALL GROUND BUSES AND POINTS IN THE SYSTEM WITH A COPPER GRD CONDUCTOR (BUS) SYSTEM.
  - c. ALL METALLIC RACEWAYS SHALL BE UL APPROVED AND MADE-UP TIGHT AT ALL COUPLINGS AND TERMINATIONS.
  - d. ALL GROUND CONDUCTORS IN CIRCUITS SHALL BE CONTAINED WITHIN THE SAME RACEWAY AS CURRENT CARRYING CONDUCTORS.
  - e. ALL SPLICES AND TERMINATIONS SHALL BE MADE TIGHT AND AS SUCH TO PROVIDE LOW IMPEDANCE AND SHALL HAVE THE SAME SHORT-TIME CURRENT-CARRYING CAPABILITY AS THE CONDUCTOR IT IS CONNECTED TO.
  - f. ALL GRD ELECTRODES OR BONDING CONDUCTORS INSTALLED ALONE WITHIN A RACEWAY SHALL UTILIZE GRC WITH GROUNDING BUSHINGS AT EACH END. THIS GROUND CONDUCTOR SHALL LOOP THROUGH THE BUSHING LUG PRIOR TO TERMINATION.

REF	ENGLISH	SI
A	1"	25.4mm
B	2"	50.8mm
C	2 1/2"	63.5mm
D	3"	76.2mm
E	1'-6"	.4572m

GROUND BUS NOTES

1. GROUND BUS INSTALLATION SHALL BE IN ACCORDANCE WITH THIS DETAIL AND AS INDICATED ON THE DRAWINGS.



4 DETAIL - TYPICAL GROUND BUS INSTALLATION

KEYED NOTES

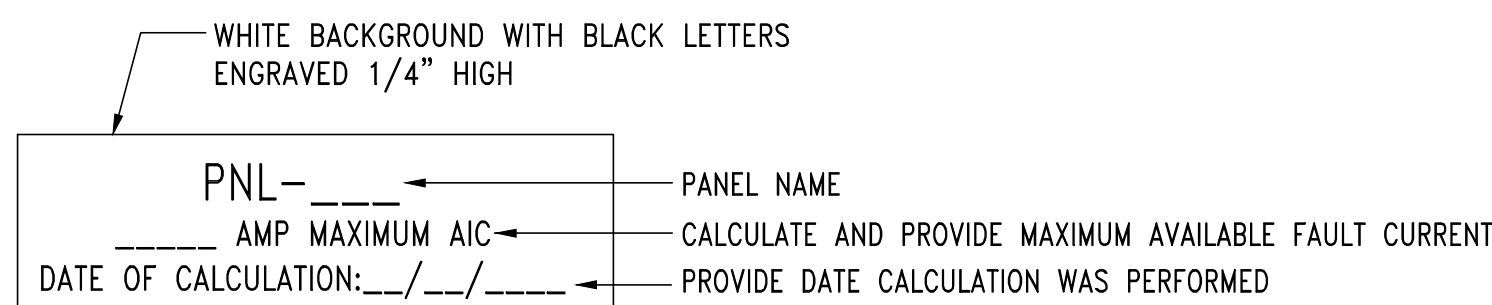
- 1/2" (12.7mm) X 1 1/2" (38.1mm) SILICON-BRONZE MACHINE BOLT & SILICON-BRONZE WASHER
- 1/2" (12.7mm) EXPANSION ANCHOR
- 9/16"Ø (14.2875mm) HOLE IN BAR
- DRILLED DOUBLE CONNECTOR HOLES
- FLAT, TWO-HOLE CU CABLE CONNECTOR #6 TO #2 (DOUBLE LUGS) #1 TO #4/0 (SINGLE LUGS ONLY)
- 4" (101.6mm) WIDE, 1/4" (6.35mm) DEEP COPPER BUS BAR.
- LENGTH AS REQUIRED BY NUMBER OF CONDUCTOR CONNECTIONS OR AS SPECIFICALLY INDICATED. PROVIDE INTERMEDIATE WALL SUPPORTS AS REQUIRED.
- TYP CU GRD CONDUCTOR CONNECTION
- DESCRIPTION TAG, STATE SIZE OF CONDUCTOR AND TO WHAT IT IS CONNECTED TO.
- TYP GRD CONNECTION FROM BELOW. SEE APPLICABLE DETAILS FOR SLAB PENETRATIONS.
- TYP GRD CONNECTION FROM ABOVE. SEE APPLICABLE DETAILS FOR GRC INSTALLATIONS.
- INSULATED NON-CONDUCTIVE SPACER

POWER RISER DIAGRAM NOTES:

1. INSTALLATION AND CONNECTION OF ALL DEVICES SHALL BE IN ACCORDANCE WITH NEC, MANUFACTURER'S RECOMMENDATIONS, AND STATE AND LOCAL CODES.
2. CONTRACTOR IS RESPONSIBLE FOR THE CONNECTING, INSTALLATION, AND MARKING OF ALL POWER FEEDER CONDUCTORS FOR THE PROPER PHASE SEQUENCE AND LOADING. CONTRACTOR SHALL TEST EACH FEEDER AND EQUIPMENT FEEDERS WITH A PHASE METER PRIOR TO CONNECTING LOADS.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND VERIFYING WITH ALL DIVISIONS THE ACTUAL NAMEPLATE DATA OF ALL EQUIPMENT AND DEVICES SUPPLIED ON THIS PROJECT PRIOR TO BID. CONTRACTOR SHALL THEN PROVIDE THE PROPERLY SIZED OVERCURRENT DEVICES (CIRCUIT BREAKERS, CONDUCTORS, DISCONNECTS, FUSES, ETC.) TO PROPERLY PROTECT THE EQUIPMENT PER THE NEC. ENGINEER'S DESIGN BASED ON DATA GIVEN TO HIM BY DESIGNERS OF OTHER DIVISIONS, ACTUAL NAMEPLATE DATA COULD DIFFER.
4. SEAL ALL CONDUITS FROM THE EXTERIOR WITH A SEALING COMPOUND, ONCE ALL CABLING HAS BEEN INSTALLED.
5. ALABAMA POWER COMPANY WILL BE FURNISHING THE OVERHEAD SECONDARY TO THE WEATHERHEADS COORDINATE WITH ALABAMA POWER ALL REQUIREMENTS SET FORTH BY THE UTILITY COMPANY AND PAY FOR ALL FEES TO GET POWER CONNECTED TO BUILDING. COORDINATE PRIOR TO BID AND BID ACCORDINGLY.
6. PROVIDE UNISTRUT SUPPORT ACROSS STRUCTURE WITH ANCHOR BOLT TO SUPPORT THE MOUNTING OF WEATHERHEADS TO THE SIDE OF THE BUILDING.

NOTES:

1. CONTRACTOR SHALL CALCULATE AND PROVIDE NAMEPLATE ON THE SERVICE ENTRANCE EQUIPMENT THAT INDICATES THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE CALCULATION WAS PERFORMED. SEE NAMEPLATE REQUIREMENTS BELOW.



TYPICAL SERVICE ENTRANCE FAULT CURRENT NAMEPLATE

5 DETAIL - SERVICE ENTRANCE FAULT CURRENT NAMEPLATE

RENOVATIONS  
TO THE  
CLAY COUNTY CAREER ACADEMY  
FOR THE  
CLAY COUNTY BOARD OF EDUCATION  
ASHLAND, ALABAMA

MCKEE and ASSOCIATES  
ARCHITECTS, INC.

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SHEET TITLE : POWER RISER, DETAILS & NOTES

MCKEE JOB # : 21.239

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DRAWN BY : J. TILLERY

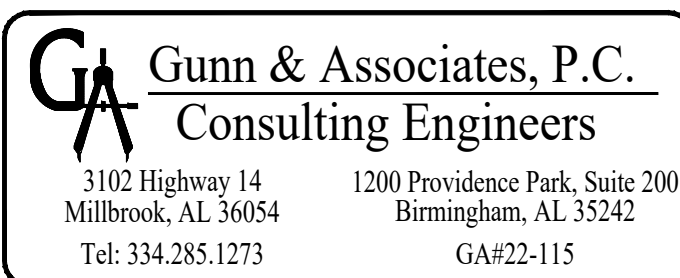
DATE : 05.18.2022

REVISED DATE : 06-08-2022

REVISED DATE :

REVISED DATE :

SHEET NO. : E7.1



NEEDLE & SHORE EXISTING  
WALL AS REQ'D UNTIL NEW  
LINTEL IS INSTALLED

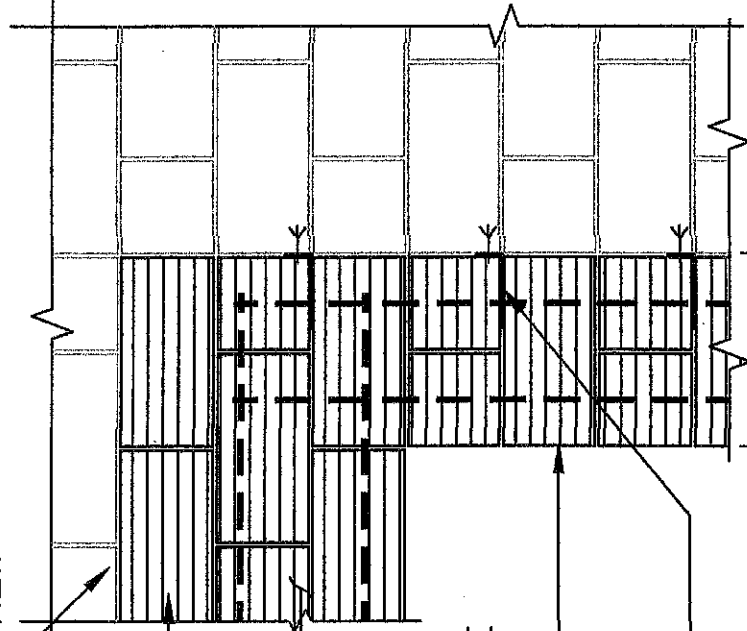
NEW CMU INFILL

NEW CMU LINTEL -  
SEE LINTEL SCHEDULE

NEW CMU JAMB. SEE  
LINTEL SCHEDULE  
NOTES FOR REINF.

MASONRY ANCHORS  
@ 16" O.C. VERT.

SEE LINTEL  
SCHEDULE NOTES



NEW CMU LINTEL IN EXISTING CMU WALL DETAIL