WAYNE STATE UNIVERSITY
MATTHAEI CENTER - ADDITION OF AIR CONDITIONING
5101 JOHN C. LODGE FWY DETROIT, MI 48202

ISSUED FOR: CONSTRUCTION
8/8/2022
CONSTRUCTION:

1. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE QUALITY OF WORK TO BE PERFORMED IN ACCORDANCE WITH THE DESIGN DRAWINGS, SPECIFICATIONS AND ALL APPLICABLE CODES. THE CONTRACTOR IS TO REPORT ANY CHANGES OR DISCREPANCIES FROM THOSE SHOWN TO THE A/E.

2. ALL DISSIMILAR METALS TO BE SEPARATED BY ELECTROLYTIC CLEANING PRIOR TO WELDING.

3. ALL SUBCONTRACTS TO BE PERFORMED IN ACCORDANCE WITH THE DESIGN DRAWINGS, SPECIFICATIONS AND ALL APPLICABLE CODES.

4. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

6. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

8. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

9. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

10. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

11. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

12. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

13. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

14. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

15. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

16. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

17. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

18. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

19. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.

20. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE CONSIDERED INSTALLATION: MATERIALS, CONNECTIONS THAT HAVE BEEN ENGINEERED ON THESE DRAWINGS (ANALYZING, TESTING, CORRELATING, CORRECTING, ETC.) WITH THE COURTESY AND SUPPORT OF THE ANCHORING, TESTING AND SPECIAL INSPECTIONS DEPARTMENT.
1. REFERENCE: GENERAL NOTES

2. VERIFY ALL ELEVATIONS AND DIMENSIONS SHOWN WITH ARCHITECTURAL DRAWINGS AND EQUIPMENT SUPPLIERS SHOP DRAWINGS PRIOR TO FABRICATION AND INSTALLATION OF STRUCTURAL STEEL

3. TOP OF STEEL ELEVATION = 112' - 9 1/2"

4. ROOF CONSTRUCTION:
   A. 1 1/2"x20GA GALVANIZED WIDE RIB METAL ROOF DECK

5. GENERAL CONTRACTOR SHALL COORDINATE ROOF TOP UNIT DIMENSIONS WITH APPROVED RTU MANUFACTURER DRAWINGS.

6. SUPPORT FRAMING SHOWN IS FOR THE RTU'S SPECIFIED ON MECHANICAL DRAWING. IF A DIFFERENT UNIT IS TO BE USED, CONTACT STRUCTURAL ENGINEER BEFORE PROCEEDING.

7. SET UNIT CURB ON EXISTING ROOF FRAMING MEMBERS OR SUPPORT MEMBERS RUNNING BETWEEN THEM. DO NOT PLACE CURB ON UNSUPPORTED ROOF DECK.

8. FIELD VERIFY ALL DIMENSIONS PRIOR TO FINAL DETAILING AND FABRICATION. IF ANY EXISTING CONDITION IS NOT AS SHOWN, CONTACT A/E BEFORE PROCEEDING WITH WORK.

9. COORDINATE LOCATION, SIZE, AND QUANTITY OF ROOF OPENINGS AND PENETRATIONS (HATCHES, EXHAUST FAN, ETC.) WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.

10. PROVIDE ROOF OPENING FRAMING FOR ALL OPENINGS AND PENETRATIONS THROUGH THE ROOF PER TYPICAL DETAIL.
1. **REFERENCE: GENERAL NOTES**

2. VERIFY ALL ELEVATIONS AND DIMENSIONS SHOWN WITH ARCHITECTURAL DRAWINGS AND EQUIPMENT SUPPLIERS SHOP DRAWINGS PRIOR TO FABRICATION AND INSTALLATION OF STRUCTURAL STEEL.

3. TOP OF STEEL ELEVATION = 124' - 10 1/2"

4. **ROOF CONSTRUCTION:**
   - A. 1 1/2"x20GA GALVANIZED WIDE RIB METAL ROOF DECK

5. GENERAL CONTRACTOR SHALL COORDINATE ROOF TOP UNIT DIMENSIONS WITH APPROVED RTU MANUFACTURER DRAWINGS.

6. SUPPORT FRAMING SHOWN IS FOR THE RTU'S SPECIFIED ON MECHANICAL DRAWING. IF A DIFFERENT UNIT IS TO BE USED, CONTACT STRUCTURAL ENGINEER BEFORE PROCEEDING.

7. SET UNIT CURB ON EXISTING ROOF FRAMING MEMBERS OR SUPPORT MEMBERS RUNNING BETWEEN THEM. DO NOT PLACE CURB ON UNSUPPORTED ROOF DECK.

8. FIELD VERIFY ALL DIMENSIONS PRIOR TO FINAL DETAILING AND FABRICATION. IF ANY EXISTING CONDITION IS NOT AS SHOWN, CONTACT A/E BEFORE PROCEEDING WITH WORK.

9. COORDINATE LOCATION, SIZE, AND QUANTITY OF ROOF OPENINGS AND PENETRATIONS (HATCHES, EXHAUST FAN, ETC.) WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.

10. PROVIDE ROOF OPENING FRAMING FOR ALL OPENINGS AND PENETRATIONS THROUGH THE ROOF PER TYPICAL DETAIL.
TO TOP OF STEEL ELEVATION = 124'

FIELD VERIFY ALL DIMENSIONS PRIOR TO FINAL DETAILING AND FABRICATION. IF A DIFFERENT UNIT IS TO BE USED, CONTACT STRUCTURAL ENGINEER BEFORE PROCEEDING.

REFERENCES:
- GENERAL NOTES
- INTERMEDIATE ROOF ENLARGED FRAMING PLAN: RTU-101
- INTERMEDIATE ROOF ENLARGED FRAMING PLAN: RTU-102 & RTU-104
- INTERMEDIATE ROOF ENLARGED FRAMING PLAN: RTU-106
- INTERMEDIATE ROOF ENLARGED FRAMING PLAN: STAIR

PROVIDE SUFFICIENT CLEARANCE FOR ALL OPENINGS AND PENETRATIONS (HATCHES, EXHAUST FAN, ETC.) WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL SPECIFICATIONS TO ENFORCE THE PREFERRED LOCATION, SIZE, AND QUANTITY OF ROOF OPENINGS AND PENETRATIONS. VERIFY ALL DIMENSIONS SHOWN WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL SPECIFICATIONS TO PREVENT CONFLICTS AND COSTLY REWORK.

STAIR MFR
- INTERMEDIATE ROOF ENLARGED FRAMING PLAN: STAIR

STAIR MFR
- INTERMEDIATE ROOF ENLARGED FRAMING PLAN: RTU-107

STAIR MFR
- INTERMEDIATE ROOF ENLARGED FRAMING PLAN: RTU-101

STAIR MFR
- INTERMEDIATE ROOF ENLARGED FRAMING PLAN: RTU-108

SCALE: 1/4" = 1'-0"

INTERMEDIATE ROOF ENLARGED FRAMING PLAN: RTU-102 & RTU-104

INTERMEDIATE ROOF ENLARGED FRAMING PLAN: RTU-101

INTERMEDIATE ROOF ENLARGED FRAMING PLAN: RTU-106

INTERMEDIATE ROOF ENLARGED FRAMING PLAN: STAIR

INTERMEDIATE ROOF ENLARGED FRAMING PLAN: RTU-107
1. REFERENCE: GENERAL NOTES

2. VERIFY ALL ELEVATIONS AND DIMENSIONS SHOWN WITH ARCHITECTURAL DRAWINGS AND EQUIPMENT SUPPLIERS SHOP DRAWINGS PRIOR TO FABRICATION AND INSTALLATION OF STRUCTURAL STEEL

3. TOP OF STEEL ELEVATION = 136' - 6"

4. ROOF CONSTRUCTION:
   A. 1 1/2"x20GA GALVANIZED WIDE RIB METAL ROOF DECK

5. GENERAL CONTRACTOR SHALL COORDINATE ROOF TOP UNIT DIMENSIONS WITH APPROVED RTU MANUFACTURER DRAWINGS.

6. SUPPORT FRAMING SHOWN IS FOR THE RTU'S SPECIFIED ON MECHANICAL DRAWING. IF A DIFFERENT UNIT IS TO BE USED, CONTACT STRUCTURAL ENGINEER BEFORE PROCEEDING.

7. SET UNIT CURB ON EXISTING ROOF FRAMING MEMBERS OR SUPPORT MEMBERS RUNNING BETWEEN THEM. DO NOT PLACE CURB ON UNSUPPORTED ROOF DECK.

8. FIELD VERIFY ALL DIMENSIONS PRIOR TO FINAL DETAILING AND FABRICATION. IF ANY EXISTING CONDITION IS NOT AS SHOWN, CONTACT A/E BEFORE PROCEEDING WITH WORK.

9. COORDINATE LOCATION, SIZE, AND QUANTITY OF ROOF OPENINGS AND PENETRATIONS (HATCHES, EXHAUST FAN, ETC.) WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.

10. PROVIDE ROOF OPENING FRAMING FOR ALL OPENINGS AND PENETRATIONS THROUGH THE ROOF PER TYPICAL DETAIL.
Provide this framing for openings greater than 12" to not damage joist.

Provide fillet weld in lieu of flare bevel welds.

Angles not required for concentrated loads detail.

Use units that require rails on 4 sides.

Handrail post detail.
IN EVERY INSTANCE OF DEMOLITION AND/OR REMODELING, THE MECHANICAL CONTRACTOR SHALL FIGURE A COMPLETE JOB AS NONE OTHER SHALL BE ACCEPTED.

THE DRAWINGS ARE TO BE USED ONLY AS A GUIDELINE FOR DEMOLITION. THE MECHANICAL CONTRACTOR MUST VISIT THE SITE PRIOR TO BIDDING TO VERIFY ALL WORK REQUIRED FOR A COMPLETE JOB AND INCLUDE THE COST OF SUCH WORK IN THEIR BID.

THE MECHANICAL CONTRACTOR SHALL MAINTAIN EXISTING SERVICES TO AND IN THE EXISTING AREA AS REQUIRED.

IF NECESSARY, THE MECHANICAL CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES IN THE EXISTING AREAS.

ANY MECHANICAL EQUIPMENT AND DEVICES SHOWN AS BEING REMOVED SHALL BE REMOVED COMPLETE INCLUDING SUPPORTING STEEL AND TEMPERATURE CONTROLS. ALL EXISTING RECESSED CONTROLS REMOVED SHALL BE REPLACED WITH STEEL COVER PLATE.

ALL WALLS, CEILINGS, FLOORS, ETC., BEING DISTURBED BY THE WORK SHALL BE RETURNED TO FINISHED CONDITIONS TO MATCH EXISTING BY THE MECHANICAL CONTRACTOR AND THEY SHALL DO THEIR OWN CUTTING AND PATCHING AS NECESSARY UNDER THEIR CONTRACT.

EXISTING EQUIPMENT AND MATERIALS SHALL BE TURNED OVER TO THE DISTRICT. IF NOT REQUIRED BY THE DISTRICT, THE CONTRACTOR SHALL REMOVE SAID EQUIPMENT AND MATERIALS FROM THE PREMISES AND DISPOSE OF IN A LEGAL MANNER.

CONTRACTOR SHALL COORDINATE WITH CONSTRUCTION MANAGER AND OWNER'S REPRESENTATIVE REGARDING TESTING AND ABATEMENT OF ANY HAZARDOUS MATERIAL PRIOR TO STARTING ANY DEMOLITION WORK.

CONTRACTOR TO PROTECT ALL EXISTING EQUIPMENT TO REMAIN DURING CONSTRUCTION.

CONTRACTOR SHALL PROVIDE DUCT CLEANING ON ALL EXISTING DUCTWORK TO REMAIN.
1. In every instance of demolition and/or remodeling, the mechanical contractor shall figure a complete job as none other shall be accepted.

2. The drawings are to be used only as a guideline for demolition. The mechanical contractor must visit the site prior to bidding to verify all work required for a complete job and include the cost of such work in their bid.

3. The mechanical contractor shall maintain existing services to and in the existing area as required.

4. If necessary, the mechanical contractor shall provide temporary services in the existing areas.

5. Any mechanical equipment and devices shown as being removed shall be removed complete including supporting steel and temperature controls. All existing recessed controls removed shall be replaced with steel cover plate.

6. All walls, ceilings, floors, etc., being disturbed by the work shall be returned to finished conditions to match existing by the mechanical contractor and they shall do their own cutting and patching as necessary under their contract.

7. Existing equipment and materials shall be turned over to the district. If not required by the district, the contractor shall remove said equipment and materials from the premises and dispose of in a legal manner.

8. Contractor shall coordinate with construction manager and owner's representative regarding testing and abatement of any hazardous material prior to starting any demolition work.

9. Contractor to protect all existing equipment to remain during construction.

10. Contractor shall provide duct cleaning on all existing ductwork to remain.

11. Remove fan coil unit and all associated refrigerant piping. Contractor responsible for all demolition of existing ceilings to remove unit.

12. Remove all associated ductwork from existing HV-7. Supply and return air to be capped in the hallway.

13. Supply branch ducts, runouts to diffusers, and diffusers to remain. Prepare ductwork for recommendation under new work scope.

14. All ductwork associated with HV-7 to be abandoned in place.

15. All ductwork and diffusers within athletic administration to remain.
1. ROUTE 24x18 SUPPLY AIR TO FLOOR LEVEL. CONNECT INTO (2) EXISTING SUPPLY FLOOR PENETRATIONS. PROVIDE ELBOWS WITH TURNING VANES. PROVIDE NEW FIRE DAMPER ACCESS DOOR ON DUCT. PROVIDE NEW 24x18 MOTOR OPERATED DAMPER IN SUPPLY DUCT.

2. CONNECT INTO TOP OF EXISTING 24x18 RETURN AIR DUCT WITH 45° BOOT TAP. 22x16 MOTOR OPERATED DAMPER TO BE LOCATED IN RETURN DUCT.

3. NEW 32x20 SUPPLY DUCT FROM RTU-106 WITH MOTOR OPERATED DAMPER. PROVIDE (3).
1. ROUTE 24x18 SUPPLY AIR TO FLOOR LEVEL. CONNECT INTO (2) EXISTING SUPPLY FLOOR PENETRATIONS. PROVIDE ELBOWS WITH TURNING VANES. PROVIDE NEW FIRE DAMPER ACCESS DOOR ON DUCT. PROVIDE NEW 24x18 MOTOR OPERATED DAMPER IN SUPPLY DUCT.

2. CONNECT INTO TOP OF EXISTING 24x18 RETURN AIR DUCT WITH 45° BOOT TAP. 22x16 MOTOR OPERATED DAMPER TO BE LOCATED IN RETURN DUCT.

3. EXISTING RETURN AIR DUCT DOWN TO FIRST FLOOR.

4. CONNECT NEW 26x26 RETURN DUCT INTO EXISTING HV-8 RETURN DUCT WITH MOTOR OPERATED DAMPER.

5. 26x26 NEW SUPPLY AIR FROM RTU-104 WITH MOTOR OPERATED DAMPER.

6. NEW 32x20 SUPPLY DUCT FROM RTU-107 WITH MOTOR OPERATED DAMPER. PROVIDE (3).
General Notes:

1. This sheet is part of a complete set of drawings furnished for the use of the owner and consultant architect. The contractor shall be responsible for the installation of the work shown on this sheet. It is the responsibility of the consultant architect to ensure that the contractor's work complies with the requirements of the drawings and specifications.

2. The drawings and specifications are not to be used as part of the contract documents for the project. The contractor shall be responsible for determining the adequacy and suitability of the work shown on the drawings.

3. The contractor shall coordinate the location of all mechanical equipment, piping, valves, dampers, smoke detectors, etc. which require routine maintenance or inspection with the architect. The contractor shall provide all necessary offsets and fittings which may be required due to space constraints or other conditions.

4. The contractor shall verify all clearances prior to fabrication of any work. The contractor shall coordinate the location of ceiling grilles, registers and diffusers with the architectural reflected ceiling plans.

5. Ductwork shall not be located over the top of any electrical panels or equipment. Duct sizes on the drawings designate the free area dimensions. The actual sheet metal sizes shall be increased to account for lining installed within 2 ft of the finished ceiling height.

6. All mechanical equipment, piping, valves, dampers, smoke detectors, etc. which require routine maintenance or inspection shall be coordinated and properly installed by the contractor. The contractor shall provide all necessary offsets and fittings which may be required due to space constraints or other conditions.

7. The contractor shall verify all clearances prior to fabrication of any work. The contractor shall coordinate the location of ceiling grilles, registers and diffusers with the architectural reflected ceiling plans.

8. The contractor shall provide all necessary offsets and fittings which may be required due to space constraints or other conditions.

9. Smoke dampers, smoke detectors, balancing dampers, VAV boxes, etc. shall be installed with within 2 ft of the finished ceiling height. All air distribution in the athletic administration suite shall remain. Rooftop unit RTU-108 shall replace existing unit. Existing existing return air ductwork up to HV-1 and RTU-101.

10. Contractor to provide openings as required in block wall. Refer to structural drawings for lintel schedule. All existing diffusers to be balanced downstream of new VAV box.

11. Provide opening in block wall with fire damper for transfer air 68"x18" minimum opening. Connect to existing duct main, existing branch ducts and diffusers to remain.

12. RTU-103 on roof, supply air down thru roof, return air down thru roof duct lined full size of opening with 90° elbow.

13. Contractor to provide openings as required in block wall. Refer to structural drawings for lintel schedule. All existing diffusers to be balanced downstream of new VAV box.

14. Thermo to remain. All air distribution in the athletic administration suite shall remain. Rooftop unit RTU-108 shall replace existing unit. Existing existing return air ductwork up to HV-1 and RTU-101.

15. Contractor to provide openings as required in block wall. Refer to structural drawings for lintel schedule. All existing diffusers to be balanced downstream of new VAV box.

16. Hatched area is covered by existing RTUs and not in project.
HVAC ENLARGED SOUTH EAST FLOOR PLAN

1. ALL EXISTING SUPPLY AND EXHAUST DUCT FROM HV-12 TO REMAIN.
2. ALL EXISTING SUPPLY AND EXHAUST DUCT UP TO HV-12 AND RTU-107.
3. EXISTING SUPPLY AIR DUCT UP TO HV-12 AND RTU-107.
4. ALL EXISTING SUPPLY AND EXHAUST DUCT FROM HV-12 TO REMAIN.
5. ALL EXISTING SUPPLY AND EXHAUST DUCT FROM HV-12 TO REMAIN.
6. ALL EXISTING SUPPLY AND EXHAUST DUCT FROM HV-12 TO REMAIN.
7. ALL EXISTING SUPPLY AND EXHAUST DUCT FROM HV-12 TO REMAIN.
8. ALL EXISTING SUPPLY AND EXHAUST DUCT FROM HV-12 TO REMAIN.
9. ALL EXISTING SUPPLY AND EXHAUST DUCT FROM HV-12 TO REMAIN.
10. ALL EXISTING SUPPLY AND EXHAUST DUCT FROM HV-12 TO REMAIN.

SCALE: 1/8" = 1'-0"
SHALL BE AVAILABLE AT BAS OPERATOR WORKSTATION.

ELECTRIC HUMIDITY SENSOR IS INSTALLED, OVERSHOOTING.

AVAILABLE AT CONTROL PANEL LOCATED IN THE JANITORS CLOSET. AND ALL SET POINTS AND SETTINGS ARE ADJUSTABLE.

MODE OF SERVICE IS PROHIBITED.

SUPPLY DAMPERS ARE INSTALLED.

THE SUPPLY FAN IS OFF AND THE MIXED AIR DAMPERS CLOSE TO THE OUTDOOR AIR.

THE SUPPLY AIR TEMPERATURE AND RETURN AIR TEMPERATURE ARE SATISFIED.

THE SUPPLY FAN START/STOP COIL OPENS TO MAINTAIN TEMPERATURE SET POINT.

THE AIRFLOW IS MODULATED BY THE REHEAT COIL STATUS.

THE UNIT IS IN THE DESIRED STATE AND GENERATES An ALARM SIGNAL IF STATUS DEVIATES FROM THE START/STOP CONTROL POINT.

THE SUPPLY FAN IS STARTED AND THE MIXED AIR DAMPERS CLOSE TO THE OUTDOOR AIR.

THE SUPPLY FAN IS OFF AND THE MIXED AIR DAMPERS CLOSE TO THE OUTDOOR AIR.

UNOCCUPIED MODE IS PROHIBITED.

WARM-UP TIME PERIOD UPON A SIGNAL FROM THE CONTROL SYSTEM OR MANUALLY AT THE ROOM SENSOR.

COOLING/BLOWER/HEATING SECTION TO VAV BOXES.

PACKAGE ROOFTOP UNIT SYSTEM.

PACKAGE ROOFTOP UNIT SYSTEM.

PACKAGE ROOFTOP UNIT SYSTEM.

PACKAGE ROOFTOP UNIT SYSTEM.

PACKAGE ROOFTOP UNIT SYSTEM.
### Rooftop Unit Schedule

<table>
<thead>
<tr>
<th>Item</th>
<th>Nominal Tons</th>
<th>Nominal Btu/h</th>
<th>Efficiency</th>
<th>Nominal Oahu</th>
<th>Part Load Efficiency</th>
<th>Nominal Capacity</th>
<th>Nominal Coefficient of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>13.5</td>
<td>12.0</td>
<td>11.1</td>
<td>10.4</td>
<td>9.9</td>
<td>9.4</td>
<td>8.9</td>
</tr>
</tbody>
</table>

### VRF Outdoor Unit Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>Nominal Tons</th>
<th>Nominal Btu/h</th>
<th>Efficiency</th>
<th>Nominal Oahu</th>
<th>Part Load Efficiency</th>
<th>Nominal Capacity</th>
<th>Nominal Coefficient of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FXAQ12PVJU</td>
<td>13.5</td>
<td>12.0</td>
<td>11.1</td>
<td>10.4</td>
<td>9.9</td>
<td>9.4</td>
<td>8.9</td>
</tr>
</tbody>
</table>

### VRF Indoor Unit Schedule

<table>
<thead>
<tr>
<th>Model</th>
<th>Nominal Tons</th>
<th>Nominal Btu/h</th>
<th>Efficiency</th>
<th>Nominal Oahu</th>
<th>Part Load Efficiency</th>
<th>Nominal Capacity</th>
<th>Nominal Coefficient of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>FXAQ12PVJU</td>
<td>13.5</td>
<td>12.0</td>
<td>11.1</td>
<td>10.4</td>
<td>9.9</td>
<td>9.4</td>
<td>8.9</td>
</tr>
</tbody>
</table>

### VAV Box with Electric Reheat Schedule

<table>
<thead>
<tr>
<th>Area</th>
<th>Monitor</th>
<th>Temperature</th>
<th>Fan Speed</th>
<th>Electric Reheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>High</td>
<td>72°F</td>
<td>High</td>
<td>110°F</td>
</tr>
<tr>
<td>Office</td>
<td>Low</td>
<td>70°F</td>
<td>Low</td>
<td>100°F</td>
</tr>
<tr>
<td>Lobby</td>
<td>High</td>
<td>72°F</td>
<td>High</td>
<td>110°F</td>
</tr>
<tr>
<td>Lobby</td>
<td>Low</td>
<td>70°F</td>
<td>Low</td>
<td>100°F</td>
</tr>
</tbody>
</table>

### Fan Schedule

<table>
<thead>
<tr>
<th>Fan</th>
<th>Type</th>
<th>Speed</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old</td>
<td>High</td>
<td>Low</td>
<td>100 HP</td>
</tr>
<tr>
<td>New</td>
<td>Low</td>
<td>High</td>
<td>110 HP</td>
</tr>
</tbody>
</table>

### Conclusion

- The HVAC system requires careful planning to ensure efficiency and proper operation.
- Regular maintenance and monitoring are essential to maintain optimal performance.
- Inverted systems and rooftop units play a crucial role in the overall system design.
- Ensure all components are certified and listed according to AHRI standards for safety and reliability.
- Refrigerant and piping diagrams are mandatory to prevent leaks and ensure coolant safety.
MOUNTED CIRCUITING INFORMATION.

GND IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED.
1. EXACT LOCATION OF MECHANICAL, PLUMBING, KITCHEN, FURNITURE SYSTEMS, OWNER FURNISHED EQUIPMENT, ETC. THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THEIR RESPECTIVE DISCIPLINE DRAWINGS. COORDINATE EXACT LOCATIONS WITH RESPECTIVE CONTRACTORS AND/OR VENDORS PRIOR TO ANY ROUGH-INS.

2. REVIEW AND COORDINATE WITH ALL TRADES' CONTRACT DOCUMENTS AND CONTRACTORS TO DETERMINE SPECIFIC MOUNTING LOCATIONS FOR EQUIPMENT WITH ELECTRICAL CONNECTIONS. COORDINATE EXACT MOUNTING LOCATIONS WITH THE SPECIFIC TRADE.

3. MINIMUM CONDUCTOR SIZE FOR 277 VOLT BRANCH CIRCUITING SHALL BE #12AWG. FOR 277 VOLT BRANCH CIRCUITS WITH HOMERUNS OVER 125 LINEAR FEET A MINIMUM CONDUCTOR SIZE OF #10AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. ASSOCIATED EQUIPMENT GROUNDING CONDUCTOR SHALL ALSO BE INCREASED PER N.E.C. ARTICLE 250.122(B) REQUIREMENTS.

4. MINIMUM CONDUCTOR SIZE FOR 120 VOLT BRANCH CIRCUITS SHALL BE #12AWG. FOR 120 VOLT BRANCH CIRCUITS WITH HOMERUNS OVER 75 LINEAR FEET, A MINIMUM WIRE SIZE OF #10AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. FOR 120 VOLT BRANCH CIRCUITS WITH HOMERUN OVER 150 LINEAR FEET, A MINIMUM WIRE SIZE OF #8AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. ASSOCIATED EQUIPMENT GROUNDING CONDUCTOR SHALL ALSO BE INCREASED PER N.E.C. ARTICLE 250.122(B) REQUIREMENTS.

5. AT A MINIMUM ALL BRANCH CIRCUITS SHALL CONTAIN (2)#12AWG, (1)#12 EG, IN 3/4" CONDUIT UNLESS OTHERWISE INDICATED.

6. ALL BRANCH CIRCUITS SHALL BE RUN WITH AN INDIVIDUAL NEUTRAL WIRE. BRANCH CIRCUITS SHALL NOT SHARE NEUTRAL WIRES.

7. RECEPTACLE BRANCH CIRCUITS MAY SHARE EQUIPMENT GROUND CONDUCTORS.

8. ALL CONDUCTORS SHALL BE IDENTIFIED BY PANELBOARD AND CIRCUIT NUMBER(S) IN ALL CABINETS, JUNCTION BOXES, WIRING TROUGHS, ENCLOSURES, SPLICE OR TERMINATION POINTS, ETC.

9. A NEW TYPED PANELBOARD DIRECTORY CARD SHALL BE PROVIDED FOR ALL PANELS INSTALLED OR MODIFIED UNDER THIS CONTRACT. NEW DIRECTORY CARDS SHALL BE LOCATED ON THE INSIDE DOOR OF ASSOCIATED PANELS.
1. The Osborn Engineering Company retains copyright ownership of all documents and contractors to determine specific requirements.

2. The addition of air conditioning to PP-ACS is prohibited.

3. Reference to equipment electrical connections schedule on their respective systems, owner furnished equipment, etc.

4. The specific trade connections. Coordinate exact mounting locations with equipment with electrical systems.

5. Coordinate exact locations with respective contractors and/or vendors prior to any discipline drawings.

6. The minimum conductor size for 120 volt branch circuits shall be #12AWG. For 127 volt branch circuits with homeruns over 125 linear feet, a minimum conductor size of #10AWG shall be provided from first junction box to branch circuit panelboard. Associated equipment grounding conductor shall also be increased per NEC Article 250.122(B) requirements.

7. All branch circuits shall contain (2)#12AWG, #10AWG, or #8AWG, whichever is required, in all cabinets, junction boxes, wiring troughs, enclosures, splice or termination points, etc.

8. A new typed panelboard directory card shall be provided in all cabinets, junction boxes, wiring enclosures. New directory cards shall be located on the inside door for all panels installed or modified under this contract.

9. All conductors shall be identified by panelboard and circuit number(s) in all cabinets, junction boxes, wiring enclosures, and/or areas where required.

10. Branch circuits shall not share neutral wires. Branch circuits shall be run with an individual neutral wire. Branch circuits may share equipment ground wires.

11. Receptacle branch circuits may share equipment ground wires. Receptacle branch circuits may also be connected to homerun wires.

12. The minimum conductor size for 277 volt branch circuiting shall be #12AWG. For 277 volt branch circuits with homeruns over 125 linear feet, a minimum conductor size of #10AWG shall be provided from first junction box to branch circuit panelboard. Associated equipment grounding conductor shall also be increased per NEC Article 250.122(B) requirements.

13. Over 150 linear feet, a minimum wire size of #8AWG shall be provided from first junction box to branch circuit panelboard. For 120 volt branch circuits with homeruns over 75 linear feet, a minimum wire size of #10AWG shall be provided from first junction box to branch circuit panelboard.

14. Over 150 linear feet, a minimum wire size of #8AWG shall be provided from first junction box to branch circuit panelboard. For 120 volt branch circuits with homeruns over 125 linear feet, a minimum conductor size of #10AWG shall be provided from first junction box to branch circuit panelboard. Associated equipment grounding conductor shall also be increased per NEC Article 250.122(B) requirements.
1. Exact location of mechanical, plumbing, kitchen, furniture systems, owner furnished equipment, etc. that require electrical connections are shown on their respective discipline drawings. Coordinate exact locations with respective contractors and/or vendors prior to any rough-ins.

2. Review and coordinate with all trades' contract documents and contractors to determine specific mounting locations for equipment with electrical connections. Coordinate exact mounting locations with the specific trade.

3. Minimum conductor size for 277 volt branch circuiting shall be #12 AWG. For 277 volt branch circuits with homeruns over 125 linear feet a minimum conductor size of #10 AWG shall be provided from first junction box to branch circuit panelboard. Associated equipment grounding conductor shall also be increased per N.E.C. Article 250.122(B) requirements.

4. Minimum conductor size for 120 volt branch circuits shall be #12 AWG. For 120 volt branch circuits with homeruns over 75 linear feet, a minimum wire size of #10 AWG shall be provided from first junction box to branch circuit panelboard. For 120 volt branch circuits with homerun over 150 linear feet, a minimum wire size of #8 AWG shall be provided from first junction box to branch circuit panelboard. Associated equipment grounding conductor shall also be increased per N.E.C. Article 250.122(B) requirements.

5. At a minimum all branch circuits shall contain (2)#12 AWG, (1)#12 EG, in 3/4" conduit unless otherwise indicated.

6. All branch circuits shall be run with an individual neutral wire. Branch circuits shall not share neutral wires.

7. Receptacle branch circuits may share equipment ground conductors.

8. All conductors shall be identified by panelboard and circuit number(s) in all cabinets, junction boxes, wiring troughs, enclosures, splice or termination points, etc.

9. A new typed panelboard directory card shall be provided for all panels installed or modified under this contract. New directory cards shall be located on the inside door of associated panels.
1. EXACT LOCATION OF MECHANICAL, PLUMBING, KITCHEN, FURNITURE SYSTEMS, OWNER FURNISHED EQUIPMENT, ETC. THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THEIR RESPECTIVE DISCIPLINE DRAWINGS. COORDINATE EXACT LOCATIONS WITH RESPECTIVE CONTRACTORS AND/OR VENDORS PRIOR TO ANY ROUGH-INS.

2. REVIEW AND COORDINATE WITH ALL TRADES' CONTRACT DOCUMENTS AND CONTRACTORS TO DETERMINE SPECIFIC MOUNTING LOCATIONS FOR EQUIPMENT WITH ELECTRICAL CONNECTIONS. COORDINATE EXACT MOUNTING LOCATIONS WITH THE SPECIFIC TRADE.

3. MINIMUM CONDUCTOR SIZE FOR 277 VOLT BRANCH CIRCUITING SHALL BE #12AWG. FOR 277 VOLT BRANCH CIRCUITS WITH HOMERUNS OVER 125 LINEAR FEET A MINIMUM CONDUCTOR SIZE OF #10AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. ASSOCIATED EQUIPMENT GROUNDING CONDUCTOR SHALL ALSO BE INCREASED PER N.E.C. ARTICLE 250.122(B) REQUIREMENTS.

4. MINIMUM CONDUCTOR SIZE FOR 120 VOLT BRANCH CIRCUITS SHALL BE #12AWG. FOR 120 VOLT BRANCH CIRCUITS WITH HOMERUNS OVER 75 LINEAR FEET, A MINIMUM WIRE SIZE OF #10AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. FOR 120 VOLT BRANCH CIRCUITS WITH HOMERUN OVER 150 LINEAR FEET, A MINIMUM WIRE SIZE OF #8AWG SHALL BE PROVIDED FROM FIRST JUNCTION BOX TO BRANCH CIRCUIT PANELBOARD. ASSOCIATED EQUIPMENT GROUNDING CONDUCTOR SHALL ALSO BE INCREASED PER N.E.C. ARTICLE 250.122(B) REQUIREMENTS.

5. AT A MINIMUM ALL BRANCH CIRCUITS SHALL CONTAIN (2)#12AWG, (1)#12 EG, IN 3/4" CONDUIT UNLESS OTHERWISE INDICATED.

6. ALL BRANCH CIRCUITS SHALL BE RUN WITH AN INDIVIDUAL NEUTRAL WIRE. BRANCH CIRCUITS SHALL NOT SHARE NEUTRAL WIRES.

7. RECEPTACLE BRANCH CIRCUITS MAY SHARE EQUIPMENT GROUND CONDUCTORS.

8. ALL CONDUCTORS SHALL BE IDENTIFIED BY PANELBOARD AND CIRCUIT NUMBER(S) IN ALL CABINETS, JUNCTION BOXES, WIRING TROUGHS, ENCLOSURES, SPLICE OR TERMINATION POINTS, ETC.

9. A NEW TYPED PANELBOARD DIRECTORY CARD SHALL BE PROVIDED FOR ALL PANELS INSTALLED OR MODIFIED UNDER THIS CONTRACT. NEW DIRECTORY CARDS SHALL BE LOCATED ON THE INSIDE DOOR OF ASSOCIATED PANELS.

POWER SHEET GENERAL NOTES:

1. REFER TO EQUIPMENT ELECTRICAL CONNECTION SCHEDULE ON SHEET E-701 FOR ADDITIONAL INFORMATION.

2. DISCONNECT CONDUIT AND WIRE TO EXISTING RTU AND RECONNECT TO NEW RTU. COORDINATE WITH MECHANICAL TRADES.

3. DISCONNECT AND REMOVE EXISTING AC UNIT AND FAN COIL UNIT BELOW AND ALL ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE.

4. DISCONNECT AND REMOVE EXISTING RTU AND ALL ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE.
1. Exact location of mechanical, plumbing, kitchen, furniture systems, owner furnished equipment, etc. that require electrical connections are shown on their respective discipline drawings. Coordinate exact locations with respective contractors and/or vendors prior to any rough-ins.

2. Review and coordinate with all trades’ contract documents and contractors to determine specific mounting locations for equipment with electrical connections. Coordinate exact mounting locations with the specific trade.

3. Minimum conductor size for 277 volt branch circuiting shall be #12AWG. For 277 volt branch circuits with homeruns over 125 linear feet a minimum conductor size of #10AWG shall be provided from first junction box to branch circuit panelboard. Associated equipment grounding conductor shall also be increased per NEC Article 250.122(B) requirements.

4. Minimum conductor size for 120 volt branch circuits shall be #12AWG. For 120 volt branch circuits with homeruns over 75 linear feet, a minimum wire size of #10AWG shall be provided from first junction box to branch circuit panelboard. For 120 volt branch circuits with homerun over 150 linear feet, a minimum wire size of #8AWG shall be provided from first junction box to branch circuit panelboard. Associated equipment grounding conductor shall also be increased per NEC Article 250.122(B) requirements.

5. At a minimum all branch circuits shall contain (2)#12AWG, (1)#12EG, in 3/4” conduit unless otherwise indicated.

6. All branch circuits shall be run with an individual neutral wire. Branch circuits shall not share neutral wires.

7. Receptacle branch circuits may share equipment ground conductors.

8. All conductors shall be identified by panelboard and circuit number(s) in all cabinets, junction boxes, wiring troughs, enclosures, splice or termination points, etc.

9. A new typed panelboard directory card shall be provided for all panels installed or modified under this contract. New directory cards shall be located on the inside door of associated panels.

POWER SHEET GENERAL NOTES

1. Disconnect and remove all existing electrical devices in this room, medium voltage transformer, bus duct, PLD loop, including all associated supports and wiring.

2. Disconnect and remove all lighting in this room including associated switches. Existing circuit to remain.

3. New 1x4 vapor tight frosted polycarbonate lens suspended mounted LED strip light. Lithonia catalog number CVST L48 5000LM MVOLT 40K 80CRI. Connect to existing lighting circuit.

4. Provide 4”H concrete pad.

KEY NOTES

- In accordance with the National Electrical Code, Articles 250 and 704, or as otherwise specified by the Architect, Contractor or Owner.
- The above noted are minimum protection requirements for the electrical system.
- All branch circuits shall be run with individual neutral wires. Branch circuits shall not share neutral wires.
- Equipment grounding conductors shall be increased as required by NEC Article 250.122(B).
- Neutral wires shall not be spliced or bridged.
- All circuit conductors shall be identified by panelboard and circuit number(s).
- New panelboard directory cards shall be provided for all panels installed or modified under this contract.
**TYPICAL PANEL NAMEPLATE DETAIL**

- **NAME**
- **VOLTAGE**: 480Y/277V, 3Ø, 4W
- **CURRENT**: 225kAIC
- **AMPS**: 225

**SYSTEM DESCRIPTION**
- **EQUIPMENT NAME**: FED FROM: "EQUIPMENT NAME" IN ROOM 
- **VOLTAGE**: 480Y/277V, 3Ø, 4W
- **FED FROM**: "EQUIPMENT NAME" IN ROOM 
- **INTERRUPTING CURRENT RATING**: 10kAIC

**NOTES**
1. REFER TO EQUIPMENT NAMEPLATE DETAIL NOTES AND ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

**WEATHERPROOF ROOFTOP LIGHT/RECEPTACLE DETAIL**

- **FINISHED FLOOR**
- **EXISTING CONCRETE FLOOR**
- **LINE OF EQUIPMENT**

**ROOF STRUCTURE**
- **BLANK COVER PLATE**
- **JUNCTION BOX AND CONDUIT**
- **BEAM CLAMPED TO STRUCTURE**

**WEATHERPROOF ROOFTOP LIGHT/RECEPTACLE DETAIL**

- **FINISHED ROOF SURFACE**
- **3/4" RIGID GALVANIZED STEEL CONDUIT**
- **SINGLE POLE TOGGLE SWITCH**
- **THREE GANG, THREE COVER CAST DEVICE BOX**
- **3/4" RIGID GALVANIZED STEEL CONDUIT**

**TYPICAL DUCT DETECTOR MOUNTING DETAIL**

- **ROOF CURB**
- **SEE SPECIFICATION**
- **FINISHED ROOF SURFACE**
- **3/4" RIGID GALVANIZED STEEL CONDUIT**

**INTERIOR CONCRETE PAD DETAIL**

- **NOT TO SCALE**
- **INTERIOR CONCRETE PAD DETAIL**

**NOTES**
1. PROVIDE CONCRETE WORK PAD REINFORCED WITH 6 X 6 - W2.9 X W2.9 WELDED WIRE FABRIC. CONCRETE SHALL BE 4000 PSI AT 28 DAYS.
2. VERIFY ALL PAD CONSTRUCTION DIMENSIONS WITH EQUIPMENT SHOP DRAWINGS PRIOR TO INSTALLATION. PAD SHALL EXTEND 4" BEYOND EQUIPMENT / ENCLOSURE ON ALL SIDES. VERIFY WORK PAD HEIGHT WITH EQUIPMENT REQUIREMENTS.
3. EXISTING FLOOR IN AREA OF NEW WORK PAD SHALL BE CLEANED OF EXISTING SOLVENTS AND PAINT. ROUGHEN EXISTING FLOOR AT LOCATION OF WORK PAD. APPLY BONDING AGENT PRIOR TO PLACING CONCRETE.
4. DRILL INTO EXISTING CONCRETE FLOOR SLAB A MINIMUM OF 2" BEYOND TOPPING. USE #4 BENT BAR @ 12" O.C., HOLD A MINIMUM OF 1" BELOW TOP OF SLAB.
5. PROVIDE HILTI ADHESIVE INJECTION SYSTEM OR APPROVED EQUAL.
6. CHAMFER ALL EXPOSED EDGES WITH 1" CHAMFER AT 45-DEGREES.
### Equipment Electrical Connection Schedule

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>PANEL / CKT. #</th>
<th>CONDUCTORS / CONDUIT</th>
<th>VOLTAGE</th>
<th>HP</th>
<th>kW</th>
<th>DESIGNATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Notes: Additional requirements.*

---

### ADDITION OF AIR CONDITIONING UNIT

- **DATE:** 08/08/22
- **FOR BIDDING:**

<table>
<thead>
<tr>
<th>PANEL / CKT. #</th>
<th>VOLTAGE</th>
<th>HP</th>
<th>kW</th>
<th>DESIGNATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Location:**
- **First Floor East**
- **First Floor West**
- **First Floor South**
- **First Floor North**

**Equipment:**
- SINGLE DUCT TERMINAL UNIT
- BRANCH SELECTOR BOX
- VRF INDOOR UNIT PUMP

**Specifications:**
- 208V
- 6Kw
- 1.5Kw
- 20A
- 1Ø
- 3Ø
- 0.14 kVA
- 0.18 kVA
- 2#12, 1#12 EG - 3/4"C.
- DISCONNECT BY MFG
- DISCONNECT BY EC

---

**Contact:**
- Fuertez, Bernard
- 7401 West Outer Drive, Detroit, MI 48208
- (313) 915-4014
- www.osborn-eng.com

**Company:**
The Osborn Engineering Company

**Copyright:**
- © 2023 Osborn Engineering

---

**Notes:** Additional requirements.