This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated 10.26.22, as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of 2 pages and the attached Drawing Sheets:
Special Education Building Remodel: MD100, MD101, MD102, M101, M102, M501, M502, M601, M602, PD100, PD101, PD102, P100, P101, P102, P103, P401, P501, P502, P601, EG1.1 and EX1.2.

A. Changes to drawings:
1. Special Education Building Remodel – Sheets MD100, M502, M602 and PD100:
   a. Add sheets MD100, M502, M602 and PD100 to the construction documents.
2. Special Education Building Remodel – Sheets MD101, MD102, M101, M102, M501, M502, M601, PD101, PD102, P100, P101, P102, P103, P401, P501, P502 and P601:
   a. Update the drawing title on sheets MD101, MD102, M101, M102, M501, M502, M601, PD101, PD102, P100, P101, P102, P103, P401, P501, P502 and P601
3. Special Education Building Remodel – Sheet EG1.1:
   a. Drawing Index updated to match changed sheet EX1.2 name ‘Luminaire and Mechanical Schedules’
4. Special Education Building Remodel – Sheet EX1.2:
   a. Sheet name updated to ‘Luminaire and Mechanical Schedules’. Added Luminaire Schedule to sheet.
5. Annex Building Remodel – Sheets D1.2 and A1.2:
   a. Demolish wood access door systems between private restrooms at Restroom 111, infill openings with framing to match existing, install new lathe and plaster wall finish to match existing and paint walls.

7. Annex Building Remodel – Sheet EG1.1:
   a. Drawing Index updated to match changed sheet EX1.1 name ‘Electrical Schedules’

8. Annex Building Remodel – Sheet EX1.1:
   a. Sheet name updated to ‘Electrical Schedules’. Added Luminaire Schedule to sheet.
REFERENCE NOTES

- Equipment and materials are not shown.--Mark with the location.
- SERVICE PIPING TO BE REMOVED ON SOCKET ELEMS.
- Chokes shall be located where shown.
- ELEVATING DEVICES TO BE REMOVED AT LOCATION.
- Piping identified with material shown.

GENERAL DEMOLITION NOTES

- See GENERAL DEMOLITION NOTES for complete details.
- Piping and equipment shown as installed where shown.
-cookie cutter sheet with location.
- Ladder hatch.
- CRAWL SPACE ACCESS FLOOR HATCH.

REFERENCE NOTES

- See GENERAL DEMOLITION NOTES for complete details.
- Piping and equipment shown as installed where shown.
- Cookie cutter sheet with location.
- Ladder hatch.
- CRAWL SPACE ACCESS FLOOR HATCH.
EXISTING FLOOR MOUNTED VENTILATION GRILLES TO REMAIN INTACT.
EXISTING GYM GRILLE AND RETURN AIR CHASE IN STAIRWELL TO REMAIN INTACT.
EXISTING FOUNDATION VENT SERVING UNIT VENTILATORS TO REMAIN INTACT.
EXISTING EXHAUST DUCT SERVING LOCKER SHOWER ROOM AREA TO REMAIN INTACT.
EXISTING CEILING EXHAUST FAN, GRILLE, AND EXHAUST DUCTWORK.
EXISTING STEAM RADIATOR COMPLETE. REMOVE ALL CONTROLS AND CONTROLS.
PREPARE AREA IN GENERAL FOR NEW ROOF TOP UNITS AND NEW DDC AND REPAIR OF ROOF BY OTHERS.
EXISTING S.A. DUCT IN GYM TO REMAIN INTACT. NO WORK REQD.
EXISTING EXHAUST DUCT SERVING LOCKER SHOWER ROOM AREA TO REMAIN INTACT.
EXISTING STEAM PIPING. PATCHING AND REPAIR OF WALL BY OTHERS.
EXISTING STEAM RADIATOR COMPLETE. REMOVE ALL CONTROLS AND CONTROLS.
PROJECT NUMBER: 2750
DATE: 10/26/22
REFERENCE NOTES
EXISTING I.S. DUCT IN FIRE TAMPERPROOF LOCK. REMOVE PIPE.
EXISTING FOOTING TO SUB-FLOOR. REMOVE FOOTING COMPLETE.
EXISTING WALLS AND FLOOR (LATE CHALK). REMOVE COMPLETE.
EXISTING DRYWALL COMPLETE. REMOVE COMPLETE.
EXISTING CEILING COMPLETE. REMOVE COMPLETE.
EXISTING EXHAUST DUCT COMPLETE. REMOVE COMPLETE.
EXISTING STEAM PIPING COMPLETE. REMOVE COMPLETE.
EXISTING POWER OUTLET COMPLETE. REMOVE COMPLETE.
EXISTING LIGHT OUTLET COMPLETE. REMOVE COMPLETE.
EXISTING VENT COMPLETE. REMOVE COMPLETE.
EXISTING EXHAUST VENT COMPLETE. REMOVE COMPLETE.
EXISTING FLOOR MOUNTED VENTILATION GRILLES TO REMAIN INTACT.
EXISTING GYM GRILLE AND RETURN AIR CHASE IN STAIRWELL TO REMAIN INTACT.
EXISTING FOUNDATION VENT SERVING UNIT VENTILATORS TO REMAIN INTACT.
EXISTING EXHAUST DUCT SERVING LOCKER SHOWER ROOM AREA TO REMAIN INTACT.
EXISTING CEILING EXHAUST FAN, GRILLE, AND EXHAUST DUCTWORK.
EXISTING STEAM RADIATOR COMPLETE. REMOVE ALL CONTROLS AND CONTROLS.
PREPARE AREA IN GENERAL FOR NEW ROOF TOP UNITS AND NEW DDC AND REPAIR OF ROOF BY OTHERS.
EXISTING S.A. DUCT IN GYM TO REMAIN INTACT. NO WORK REQD.
EXISTING EXHAUST DUCT SERVING LOCKER SHOWER ROOM AREA TO REMAIN INTACT.
EXISTING STEAM PIPING. PATCHING AND REPAIR OF WALL BY OTHERS.
REFERENCE NOTES

EXISTING OUTSIDE AIR LOUVER SERVING GYM TO REMAIN INTACT. REMOVE ALL INTERIOR DUCTWORK. INFILL WALL OPENING WITH 2 INCH THICK WATERPROOF POLYISO INSULATION BOARD. CAP INFILLED OPENING WITH SHEET METAL CAP AND SEAL AIRTIGHT.

REMOVE EXISTING BUILT UP FILTER BANK COMPLETE. EXISTING INLINE EXHAUST FAN SERVING LOCKER SHOWER ROOM AREA TO REMAIN INTACT.

EXISTING R.A. CHASE AND WALL OPENING TO REMAIN INTACT. REMOVE EXISTING BUILT UP FILTER Complete. REMOVE EXISTING BUILT UP AIR HANDLER COMPLETE. REMOVE ALL ASSOCIATED SUPPORTS, DUCTWORK AND CONTROLS.

EXISTING S.A. DUCT SERVING GYM TO REMAIN INTACT. NO WORK REQD. REMOVE EXISTING ATTIC VENT COMPLETE. REMOVE ROOF CURB. PATCHING AND REPAIR OF ROOF BY OTHERS.

PREPARE AREA IN GENERAL FOR NEW ROOF TOP UNITS AND NEW DDC CONTROLS.
REFERENCE NOTES

- Metal return ductwork taking of from location to fit between ceiling and floor framing.
- Metal return ductwork terminating at the location to maintain proper air flow.
- Metal return ductwork terminating at the location to maintain proper air flow.
- Metal return ductwork terminating at the location to maintain proper air flow.
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- Metal return ductwork terminating at the location to maintain proper air flow.
REFERENCE NOTES

1. INSTALL NEW ROOF TOP UNIT IN THIS LOCATION. COORDINATE LOCATION OF ROOF TOP UNIT WITH EXISTING STRUCTURE, ARCHITECT AND STRUCTURAL ENGINEER. SEE INSTALLATION DETAIL 1/M501.

2. EXTEND S.A. AND R.A. DUCTS DOWN THROUGH EXISTING ROOF AS INDICATED. G.C. TO FRAME ROOF OPENING FOR NEW DUCTWORK.

3. EXTEND NEW S.A. DUCT OF SIZE INDICATED AND CONNECT TO EXISTING S.A. DUCT IN THIS LOCATION.

4. BALANCE EXISTING CEILING DIFFUSER TO CFM INDICATED. NEW S.A. DUCT TO RUN HIGH CLOSE TO ROOF BETWEEN EXISTING ROOF TRUSSES. COORDINATE LOCATION WITH EXISTING DUCTWORK.

5. WHERE EXISTING "X" BRACING OCCURS, CONSULT WITH ARCHITECT AND STRUCTURAL ENGINEER BEFORE REMOVING BRACING. BRACING WILL NEED TO BE REMOVED AND REPLACED AS PART OF THE NEW DUCTWORK INSTALLATION.

6. PROVIDE DUCT TRANSITION AS NEEDED.

7. ROOF CURB SHALL EXTEND OVER THREE (3) EXISTING ROOF TRUSSES FOR SUPPORT. FABRICATE AND INSTALL CUSTOM ROOF CURB TO MATCH ROOF TOP UNIT AND PROVIDE REQUIRED ROOF SUPPORT.

8. EXISTING CEILING SYSTEM IN THIS AREA TO BE REMOVED TO ALLOW FOR INSTALLATION OF NEW S.A. DUCTWORK AND PROVIDE FOR RETURN AIR PATH TO ROOF TOP UNIT.
PLUMBING DEMOLITION KEYED NOTES

A. EXISTING WATER LINES TO CRAWL SPACE TO REMAIN INTACT.
B. EXISTING WATER LINES TO BE REMOVED COMPLETELY.
C. EXISTING CAST IRON WASTE LINE IN CRAWL SPACE TO REMAIN IN PLACE.
D. EXISTING 1" SERVICE SINK TO REMAIN INTACT.
E. EXISTING SINKS TO REMAIN IN PLACE.
F. EXISTING EXISTING WATER PIPING IN CRAWL SPACE TO BE REMOVED COMPLETELY.
G. EXISTING 3/4" WATER SERVICE LINES TO REMAIN IN PLACE.
H. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO BE REMOVED COMPLETELY.
I. EXISTING EXISTING WATER LINES TO REMAIN IN PLACE.
J. ARRANGEMENT OF WATER SERVICE LINES IN CRAWL SPACE TO BE REMOVED COMPLETELY.
K. EXISTING January 19th, 2023
L. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO BE REMOVED COMPLETELY.
M. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
N. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
O. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
P. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
Q. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
R. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
S. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
T. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
U. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
V. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
W. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
X. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
Y. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.
Z. EXISTING EXISTING WATER LINES IN CRAWL SPACE TO REMAIN IN PLACE.

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

EXISTING ROOF DRAIN TO REMAIN INTACT. NOW WORK REQUIRED.
EXISTING STEAM COIL TO BE REMOVED. REMOVE ANY ASSOCIATED COIL DRAIN LINES.
EXISTING FAN SYSTEM TO BE REMOVED. REMOVE ANY ASSOCIATED DRAIN LINES.
ALL RESTROOM AND LOCKER ROOM VENT PIPING TO REMAIN INTACT. ALL EXISTING VENT THROUGH ROOF LOCATIONS TO REMAIN. WHERE NEW PLUMBING FIXTURES ARE INSTALLED MAKE CONNECTIONS TO EXISTING VENT PIPING.
REFERENCE NOTES

1. Pipe 1/2" CW and HW lines up thru floor to water heater. Pipe 1-1/4" CW up thru floor to flush valve.
2. Pipe 1/2" CW and HW lines up thru floor to sink faucet. Pipe 3/4" CW and HW lines up thru floor to service sink.
3. Insulate CW PP-R piping unless otherwise noted.
4. Attach insulation to insulation blanket. Do not insulate all HW and HWR PP-R piping in crawl space. Refer to specifications for insulation thickness and type.
5. Run new PP-R piping in crawl space high close to floor. Provide compatible transition from PP-R pipe to existing.
6. Pipe 3/4" CW and HW lines up thru floor to urinal flush valve. Pipe 2" urinal waste line down thru floor and connect to existing waste line in crawl space.
7. Pipe 3/4" CW line up thru floor to ice maker box in wall.
8. Pipe 1/2" CW and HW lines up thru floor to washer box in wall.
9. Pipe 1/2" CW line up thru floor to sink faucet. Pipe 2" sink waste line down thru floor and connect to existing waste line in crawl space.
10. Pipe 3/4" CW and HW lines up thru floor to existing service sink. Pipe 3/4" urinal waste line down thru floor and connect to existing waste line in crawl space.
11. Pipe 1" CW line up thru floor to water closet flush valve. Pipe 4" water closet waste line down thru floor and connect to existing waste line in crawl space.
12. Pipe 1/2" CW and HW lines up thru floor to existing shower valve. Pipe new 1/2" CW and HW lines to existing.
13. Pipe 1/2" CW and HW lines up thru floor to existing water closet. Pipe new 1/2" CW and HW lines to existing.
14. Pipe 3/4" CW and HW lines up thru floor to existing lavatory. Pipe new 1/2" CW and HW lines to existing.
15. Pipe 1/2" CW and HW lines up thru floor to existing shower floor drain. Verify shower drain is connected to new piping to existing.
16. Pipe 3/4" water closet waste line down thru floor and connect to circulation pump.
17. Pipe 1/2" CW line up thru floor to existing water closet. Pipe new 1/2" CW to existing flush valve.
18. Pipe 1/2" CW and HW lines up thru floor to existing urinal. Pipe new 1/2" CW and HW lines to existing.
19. Pipe 1/2" CW line up thru floor to existing urinal waste line. Pipe new 1/2" CW and HW lines to existing urinal.
20. Pipe 1/2" CW and HW lines up thru floor to existing lavatory waste line. Pipe new 1/2" CW and HW lines to existing lavatory.
REFERENCE NOTES
EXISTING ROOF DRAIN SHOWN FOR REFERENCE ONLY. NO WORK REQUIRED. COORDINATE LOCATION OF NEW MECHANICAL AND PLUMBING WORK WITH EXISTING ROOF DRAIN PIPING.
NEW GAS LINE TO DROP THRU EXISTING ATTIC SPACE TO GAS FIRED WATER HEATER BELOW. SEE DRAWING P101 FOR CONTINUATION.
NEW VENT THRU ROOF (VTR). TERMINATE VENT 24" A.F.R. (TYP) SEE DETAIL XX.XX

SECOND LEVEL PLUMBING PLAN
SCALE: 1/8" = 1'-0"
### Reference Notes

- Exterior plumbing connections are shown for reference only.
- Exterior plumbing connections are shown for reference only.
- Mains are shown for reference only.
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**PLUMBING EQUIPMENT SCHEDULE**

**BUILDING SERVICES PIPING MATERIALS, SIZING AND IDENTIFICATION**

**PLUMBING FIXTURE SCHEDULE**

**PLUMBING PIPING LEGEND**

**PIPING INSULATION SCHEDULE**

**BRANCH WATER LINE SCHEDULE**

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**GENERAL NOTES:**

A. **PLUMBING SYSTEMS:** Under your legal responsibility for the Plumbing System, you must prepare and submit to the Engineer all drawings, specifications, and calculations necessary to ensure compliance with local codes and standards. All drawings must be prepared and submitted in accordance with the American National Standards Institute (ANSI) and the applicable American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) guidelines. All plumbing fixtures and components must be selected to meet the requirements of the local codes and standards.

B. **PLUMBING CODES:** All plumbing systems must comply with the International Plumbing Code (IPC) and the applicable state and local codes. The plumbing system must also comply with the requirements of the National Fire Protection Association (NFPA) and the American Society of Plumbing Engineers (ASPE). All plumbing fixtures and components must be selected to meet the requirements of the local codes and standards.

C. **PLUMBING MATERIALS:** All plumbing materials must be selected to meet the requirements of the local codes and standards. All plumbing fixtures and components must be selected to meet the requirements of the local codes and standards. All plumbing fixtures and components must be selected to meet the requirements of the local codes and standards.

D. **PLUMBING EQUIPMENT:** All plumbing equipment must be selected to meet the requirements of the local codes and standards. All plumbing equipment must be selected to meet the requirements of the local codes and standards. All plumbing equipment must be selected to meet the requirements of the local codes and standards.

E. **PLUMBING VENTILATION:** All plumbing systems must comply with the requirements of the local codes and standards. All plumbing systems must comply with the requirements of the local codes and standards. All plumbing systems must comply with the requirements of the local codes and standards.

F. **PLUMBING SAFETY:** All plumbing systems must comply with the requirements of the local codes and standards. All plumbing systems must comply with the requirements of the local codes and standards. All plumbing systems must comply with the requirements of the local codes and standards.

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**REFERENCES:**

1. International Plumbing Code (IPC)
2. National Fire Protection Association (NFPA)
3. American Society of Plumbing Engineers (ASPE)
4. Local codes and standards

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**CONTRACTOR'S RESPONSIBILITY:** The Contractor shall be responsible for the planning, design, and installation of the plumbing system. The Contractor shall submit the plans and specifications to the Engineer for review and approval. The Contractor shall be responsible for all work performed by the Contractor and all subcontractors. The Contractor shall be responsible for all plumbing fixtures and components selected for the plumbing system. The Contractor shall be responsible for all plumbing equipment selected for the plumbing system. The Contractor shall be responsible for all plumbing ventilation selected for the plumbing system. The Contractor shall be responsible for all plumbing safety selected for the plumbing system.
# LUMINAIRE MECHANICAL SCHEDULES

**PERMIT SET**

**DATE:** 10.26.22  
**PROJECT NUMBER:** 2150

**SCALE:** 1’ = 1'-0"

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## LUMINAIRE SCHEDULE

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## MECHANICAL EQUIPMENT SCHEDULE

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**BIMcloud: 25 - BIMcloud Basic for Archicad 25/2150 OCS - SPECIAL EDUCATIONS BUILDING REMODEL**

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EX1.2
**GENERAL DEMOLITION NOTES:**

- The Contractor shall be held fully responsible for any damage to work in progress or existing structures caused by the Contractor or its employees or agents. Additional costs due to such causes shall be billed to the Contractor.
- The Contractor shall be responsible for the protection and safety of all existing structures and work in progress.
- The Contractor shall be responsible for the removal of all existing materials and equipment from the site.
- The Contractor shall be responsible for the removal of all existing utilities and services from the site.
- The Contractor shall be responsible for the removal of all existing hazardous materials from the site.
- The Contractor shall be responsible for the removal of all existing debris from the site.
- The Contractor shall be responsible for the removal of all existing waste and trash from the site.
- The Contractor shall be responsible for the removal of all existing parking lots, driveways, and sidewalks from the site.
- The Contractor shall be responsible for the removal of all existing landscaping from the site.
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- The Contractor shall be responsible for the removal of all existing site features from the site.
REFERENCE NOTES

1. REMOVE EXISTING STEAM AND CONDENSATE BRANCH PIPING TO STEAM RADIATOR COMPLETE. REMOVE ALL ASSOCIATED STEAM AND CONDENSATE TRAPS AND PIPE SUPPORTS.

2. REMOVE EXISTING STEAM MAIN COMPLETE. REMOVE ALL ASSOCIATED PIPE SUPPORTS.

3. REMOVE EXISTING CONDENSATE MAIN COMPLETE. REMOVE ALL ASSOCIATED PIPE SUPPORTS.

4. REMOVE FLEXIBLE S.A. DUCT FROM JOIST SPACE COMPLETE.

5. REMOVE R.A. DUCT COMPLETE.

6. REMOVE EXISTING WATER COOLED AC UNIT COMPLETE. REMOVE AND SALVAGE REFRIGERANT. REMOVE ALL ASSOCIATED DUCTWORK AND SUPPORTS.

7. REMOVE ALL ASSOCIATED WATER AND DRAINS LINES TO AC UNIT.

8. REMOVE EXISTING S.A. DUCT MAIN. REMOVE ALL DUCT SUPPORTS.

9. REMOVE EXISTING S.A. REGISTER. SEE DWG M100 FOR NEW WORK REQUIRED.

10. REMOVE EXISTING R.A. BOOT. SEE DWG M100 FOR NEW WORK REQUIRED.

11. REMOVE EXISTING STEAM CONTROL VALVES COMPLETE. REMOVE ALL ACTUATORS AND CONTROL WIRING.

12. EXISTING ABANDONED STEAM MAIN AND CONDENSATE MAIN. NO WORK REQUIRED.

13. EXISTING STEAM AND CONDENSATE LINES. CUT AND CAP STEAM AND CONDENSATE MAINS NEAR WALL PENETRATION. REMOVE ALL STEAM AND CONDENSATE PIPING DOWNSTREAM.

14. REMOVE ALL ABANDONED, NON-FUNCTIONAL AND DISCONNECTED PIPING THAT IS NOT REUSED AS PART OF THE NEW WORK.
REFERENCE NOTES

- Remove existing steam radiator complete. Remove all controls and interior piping. Patching and repair of wall or floor by others.
- Remove existing evaporative cooler complete.
- Existing floor register to be removed and replaced. See drawing M101 for new work.
- Remove existing ceiling vent complete. Remove all associated wiring and controls.
- Existing floor return air grille to be removed and replaced. See drawing M101 for new work.
- Remove existing foundation vent. Infill foundation wall with opening into this space. Foundation wall is sealed with 2" XPS insulation.
- Infilled opening on interior side with galvanized sheet metal cap and seal airtight. See detail M503.
- Remove existing thermostat serving air conditioning unit in basement. Remove all associated controls and wiring.
- Remove existing evaporative steam and condensate disposal equipment. Patching and repair of wall or floor by others (typ).
REFERENCE NOTES

- INSTALL NEW FURNACE AND COOLING COIL IN THIS LOCATION. MOUNT FURNACE ON 8" HIGH PLENUM. SEE DETAIL 1/M502.
- RUN NEW REFRIGERANT SUCTION AND LIQUID LINES CLOSE TO STRUCTURE. COORDINATE ROUTING WITH DUCTWORK AND LIGHTING. SEE PIPING SUPPORT DETAILS 2/M501 AND 8/M501.
- EXTEND 3" SCH 40 PVC C.A. & FLUE PIPES FROM FURNACE TO ROOF. PROVIDE CONCENTRIC FLUE TERMINATION AT ROOF. SEE DETAIL 8/M501.
- PROVIDE TURNING VANES AT EACH DUCT ELBOW (TYP). PROVIDE UP AIR LINES (TYP) FOR FURNACE. SEE DETAIL 12/M501.
- PROVIDE 12" HIGH LINED R.A. BASE FOR FURNACE. SEE DETAIL 8/M502.
- RUN AIR DUCT LINER T.S. DUCT.
- WHERE REQUIRED, OFFSET DUCTWORK BELOW EXISTING BEAMS AND OTHER OBSTRUCTIONS (TYP).
- DROP DUCT DOWN AND RUN UNDER S.A. AIR DUCT THROUGH WALL OPENING. COORDINATE LOCATION OF DUCT WITH EXISTING WALL OPENING.
- SUPPLY AND RETURN AIR DUCTS TO RUN THROUGH EXISTING WALL OPENINGS. MAKE ADJUSTMENTS TO DUCTWORK SIZE AS NEEDED TO ACCOMMODATE EXISTING WALL OPENINGS.
- PROVIDE RETURN AIR DUCT BOOT TO FLOOR GRILLE ABOVE. SAWCUT EXISTING FLOOR AS NEEDED (TYP).
- PROVIDE SUPPLY AIR DUCT BOOT TO FLOOR REGISTER ABOVE (TYP). SAWCUT EXISTING FLOOR AS NEEDED (TYP). SEE DETAIL 1/M503.

VOLUME DAMPER (TYP).
HIGH EFFICIENCY 45 DEG TAKE-OFF (TYP)
CORE DRILL OR SAWCUT EXISTING WALL AS NEEDED TO FACILITATE DUCT INSTALLATION.
CORE DRILL OR SAWCUT EXISTING WALL AS NEEDED FOR COMBUSTION AIR AND FLUE PIPES. FOR CONTINUATION OF FLUE PIPING BE DRILLING 8/M501.

CORE DRILL OR SAWCUT EXISTING WALL AS NEEDED TO FACILITATE DUCT INSTALLATION.

FOR CONTINUATION OF REFRIGERATION PIPING SEE DRAWING M101.
FOR CONTINUATION OF FLUE PIPING BE DRILLING 8/M501.

No. 174126
PAUL W. LAIRD
10/28/22

 SCALE: 1/4" = 1'-0"
AT JOINTS
M502
MENDED
LICENSED PROFESSIONAL ENGINEER
STATE OF UTAH
No. 174126
PAUL W. LAIRD
10/28/22

ALL ENDS OF LINER TO BE COATED WITH ADHESIVE.

LONGITUDINAL JOINTS TO BE PITTSBURG OR SNAP LOCK TYPE.

DUCT LINER DETAIL

LOW PRESSURE DUCT DETAILS

DUCT CONSTRUCTION DETAIL

CEILING EXHAUST FAN DETAIL

PLENUM CONSTRUCTION DETAIL

DUCT LINER DETAIL

PENTHOUSE ROOF HOOD DETAIL

DUCT STRAP HANGER DETAIL
ROUND S.A. DUCT TO RUN HIGH BETWEEN FLOOR JOISTS OR CLOSE TO STRUCTURE.

SAWCUT EXISTING FLOOR SLAB TO PROVIDE FOR NEW FLOOR REGISTER.

FABRICATE DUCT BOOT TRANSITION.

INSULATE ROUND S.A. DUCT WITH 1-1/2" DUCT WRAP INSULATION.

S.A. FLOOR REGISTER DETAIL

SUPPLY AIR FLOOR REGISTER SPRING FIT INTO FLOOR BOOT

FOUNDATION VENT DETAIL

EXISTING FOUNDATION WALL OPENING

1/2" OASIS SHEET METAL COVER

CUT INSULATION TO FIT TIGHTLY IN EXISTING OPENING

EXISTING AIR TIGHT - ALL SIDES

EXISTING FOUNDATION WALL

EXISTING GRILLE TO REMAIN INTACT

LICENSED PROFESSIONAL ENGINEER STATE OF UTAH No. 174126 PAUL W. LAIRD 10/28/22
### LEGEND AND ABBREVIATIONS

<table>
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<tr>
<th>SYMBOL</th>
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<tr>
<td>AD</td>
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<tr>
<td>RD</td>
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<tr>
<td>SRA</td>
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<tr>
<td>R.C.</td>
<td>Return Air</td>
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### FURNACE AND COOLING COIL SCHEDULE

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<th>MANUFACTURER &amp; MODEL</th>
<th>CFM</th>
<th>AIR TEMPERATURE</th>
<th>PRESSURE</th>
<th>ELECTRICITY</th>
<th>COMBUSTION AIR TEMPERATURE</th>
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### CONDENSING UNIT SCHEDULE

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### EXHAUST FAN SCHEDULE

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### REGISTER AND GRILLE SCHEDULE

| MANUFACTURER & MODEL | CPD | AIR TEMPERATURE | PRESSURE | ELECTRICITY | LOCATION | W.P.
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<td>0.7&quot;</td>
<td>14&quot; x 6&quot;</td>
<td>0.125 H.P.</td>
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### PENTHOUSE SCHEDULE

| MANUFACTURER & MODEL | CPD | AIR TEMPERATURE | PRESSURE | ELECTRICITY | LOCATION | W.P.
<table>
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<tr>
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<td>14&quot; x 6&quot;</td>
<td>0.125 H.P.</td>
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### NOTES

1. Furnaces to be complete with matching case DX cooling coil, two speed blower and condensing fan kits.
2. Two blower enclosures for one blower to be provided per blower, with a 150 CFM blower for the secondary.
3. One blower to be provided for the primary.
4. Provide 12" x 6" return duct for use with primary cooling.
5. Provide one primary and one secondary cooling duct for the secondary cooling.

---

**CONSTRUCTION OF WALLS**
- **Interior Walls:** 2" x 4" stud construction with 1/2" drywall finish.
- **Exterior Walls:** 2" x 6" stud construction with 1/2" drywall finish.

**CONSTRUCTION OF ROOF**
- **Flat Roofs:** 2" x 4" stud construction with 1/2" drywall finish.
- **Sloped Roofs:** 2" x 6" stud construction with 1/2" drywall finish.

**CONSTRUCTION OF CEILINGS**
- **Fire-Rated Ceilings:** 2" x 6" stud construction with 1/2" drywall finish.
- **Non-Fire-Rated Ceilings:** 2" x 4" stud construction with 1/2" drywall finish.

**CONSTRUCTION OF FLOORS**
- **Concrete Floors:** 2" x 4" stud construction with 1/2" drywall finish.
- **Wood Floors:** 2" x 6" stud construction with 1/2" drywall finish.

**CONSTRUCTION OF OTHER ELEMENTS**
- **Stairs:** 2" x 4" stud construction with 1/2" drywall finish.
- **Walls:** 2" x 4" stud construction with 1/2" drywall finish.
- **Doors:** 2" x 6" stud construction with 1/2" drywall finish.

**CONSTRUCTION OF WINDOWS**
- **Single-Pane Windows:** 2" x 4" stud construction with 1/2" drywall finish.
- **Double-Pane Windows:** 2" x 6" stud construction with 1/2" drywall finish.

**CONSTRUCTION OF PENTHOUSE**
- **Penthouse:** 2" x 4" stud construction with 1/2" drywall finish.

**CONSTRUCTION OF BEAMS**
- **Concrete Beams:** 2" x 4" stud construction with 1/2" drywall finish.
- **Steel Beams:** 2" x 6" stud construction with 1/2" drywall finish.

**CONSTRUCTION OF COLUMNS**
- **Concrete Columns:** 2" x 4" stud construction with 1/2" drywall finish.
- **Steel Columns:** 2" x 6" stud construction with 1/2" drywall finish.

**CONSTRUCTION OF ROOFS**
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REFERENCE NOTES

EXISTING DRY SUMP TO REMAIN INTACT.

EXISTING WATER SERVICE, VERIFY LOCATION PRIOR TO START
OF WORK. VERIFY LOCATION AND PROVIDE NEW ISOLATION
VALVES FOR NEW WATER SERVICE. VERIFY LOCATION FOR
EXISTING 2" WATER SERVICE. VERIFY LOCATION PRIOR TO
START OF NEW WORK.

EXISTING 4" WASTE LINE SERVING BUILDING TO REMAIN INTACT.

EXISTING 2" IRRIGATION WATER LINE TO REMAIN. REMOVE AND
RELOCATE WATER LINE AS NEEDED TO FACILITATE INSTALLATION
OF NEW DUCTWORK. SEE DRAWING M100 FOR COORDINATION.

EXISTING ABS DRAIN PIPING SERVING EXISTING PLUMBING
FIXTURES TO REMAIN INTACT. REMOVE PLUMBING TAPE AND
WIRE SUPPORTS AND PROVIDE NEW PIPE HANGER SUPPORTS.

REMOVE EXISTING WATER HEATER COMPLETE. REMOVE ALL
ASSOCIATED WATER PIPING AND SUPPORTS. SEE DRAWING P100
FOR NEW WATER HEATER LOCATION.

REMOVE ALL EXISTING GALVANIZED WATER PIPING COMPLETE.

EXISTING ROOF DRAIN LINES TO REMAIN INTACT.

WHERE EXISTING PEX TUBING HAS BEEN INSTALLED TO EXISTING
PLUMBING FIXTURES. DISCONNECT AND REMOVE TUBING TO
FACILITATE INSTALLATION OF NEW DUCTWORK. INSTALL NEW
COLOR CODED PEX TUBING UPON COMPLETION OF MECHANICAL
WORK. SEE DRAWING P100.

REMOVE ALL ABANDONED WATER, DRAIN, WASTE AND VENT
PIPING THAT IS NOT RE-USED AS PART OF THE NEW WORK.

PREPARE AREA IN GENERAL FOR NEW PLUMBING WORK.

REMOVE ALL WATER SUPPLY AND DRAIN PIPING SERVING AC
UNIT COMPLETE.

EXISTING ROOF DRAIN LINES TO REMAIN INTACT.
REFERENCE NOTES

1. EXISTING PLUMBING FIXTURE TO REMAIN INTACT.
   REMOVE ANY ACCESSIBLE GALVANIZED WATER SUPPLY, WASTE OR VENT PIPING SERVING FIXTURE AND REPLACE WITH NEW COPPER OR ABS DWV PIPING.
   EXISTING DRINKING FOUNTAIN TO BE REMOVED AND REPLACED WITH NEW. SEE DRAWING P101 FOR NEW WORK.

SCALE: 1/4" = 1'-0"
CONNECT TO EXISTING GAS LINE IN THIS LOCATION. PROVIDE COMPATIBLE FITTING TO MATCH EXISTING GAS LINE PIPE SIZE AND MATERIAL.

SAWCUT ASPHALT PAVING AND EXCAVATE AS NEEDED TO INSTALL NEW GAS LINE. REPAIR AND PATCH PAVEMENT UPON COMPLETION OF WORK.

INSTALL NEW SDR 11 POLYPROPYLENE GAS LINE COMPLETE WITH TRACER WIRE AND WARNING TAPE.

EXTEND GAS LINE TO NEW GAS REGULATOR AT THE ANNEX BUILDING.

EXISTING BURIED GAS LINE. CONTRACT WITH BLUE STAKES FOR GAS LINE AND UTILITY LOCATION SERVICES PRIOR TO START OF CONSTRUCTION.

NEW GAS REGULATOR. SEE DRAWING P100 FOR CONTINUATION.

NEW MECHANICAL EQUIPMENT. COORDINATE LOCATION OF GAS LINE WITH MECHANICAL EQUIPMENT LOCATIONS.

EXISTING BURIED STEAM AND CONDENSATE PIPING BELOW GRADE. COORDINATE LOCATION OF NEW GAS LINE WITH EXISTING BURIED PIPING.
REFERENCE NOTES

1. NEW GAS SERVICE LINE BY PLUMBING CONTRACTOR. SEE DRAWING P001 FOR CONTINUATION.

2. BUILDING GAS SERVICE LOCATION. EXTEND NEW GAS LINE TO BUILDING AND PROVIDE NEW GAS REGULATOR FOR 2 PSIG SERVICE. COORDINATE REGULATOR AND NEW GAS LINE LOCATION WITH EXISTING BURIED STEAM AND CONDENSATE PIPING. SEE DETAIL 2/P501.

3. FOUNDATION PIER THRU WALL PENETRATION. CORE SMALL WALL FOR PIER PIER FORM. BRICK OR OTHER MATERIAL AROUND PIER SILL.

4. PPR TO MAIN GAS LINE TO STRUCTURE. COORDINATE PIER FORMS WITH MECHANICAL, STRUCTURAL, AND INSTRUMENTAL TRADES.

5. POINT OF CONNECTION (P.O.C.) TO MAIN PIPING LOCATION. SEE DETAIL 1/P502.

6. INSTALL DOUBLE CHECK VALVE ASSEMBLY. SEE DETAIL 4/P501.

7. MOUNT DOMESTIC WATER EXPANSION TANK ON WALL IN THIS LOCATION. SEE DETAIL 6/P501.

8. INSTALL ELECTRIC WATER HEATER IN THIS LOCATION. MOUNT WATER HEATER IN GALVANIZED DRIP PAN. SEE DETAIL 6/P501.

9. INSTALL DOMESTIC HOT WATER CIRCULATION PUMP IN THIS LOCATION. SEE DETAIL 6/P502.

10. INSTALL ISOLATION BALL VALVES IN ACCESSIBLE LOCATION FOR SERVICE.

11. PIPE 1/2" CW OR HW LINE UP TO PLUMBING FIXTURE ABOVE. TRANSITION FROM PEX TUBING TO COPPER PIPE PRIOR TO FLOOR PENETRATION. SEE DETAIL 1/P502.

12. POINT OF CONNECTION (P.O.C.) CONNECT TO EXISTING PIPING IN THIS LOCATION. MATCH PIPING SIZE AND MATERIAL OR PROVIDE COMPATIBLE TRANSITION.

13. PIPE WATER HEATER P&T VALVE DISCHARGE FULL SIZE TO DRAIN PAN.

14. INSTALL CONDENSATE LIFT PUMP IN THIS LOCATION. SEE DETAIL 2/P502.

15. INSTALL DOMESTIC DRAIN PIPE LINE TO FLOOR.

16. INSTALL PARALLEL DRAIN SUPPORTS FOR EXISTING DWV PIPING IN ACCESSIBLE LOCATION FOR SERVICE.

17. INSTALL SUMP PIPING DISCHARGE MILL. SEE DETAIL 1/P502.

18. PROVIDE NEW PIPE HANGER SUPPORTS FOR EXISTING DWV PIPING. SEE DETAIL 1/P502.

19. CORE DRILL HOLE IN WALL TO FACILITATE INSTALLATION OF PIPING THRU WALL (TYP).
REFERENCE NOTES

1. INSTALL NEW DRINKING FOUNTAIN WITH BOTTLE FILLER IN THIS LOCATION. MOUNT DRINKING FOUNTAIN SECURELY TO WALL. REMAKE ALL WATER AND DRAIN CONNECTIONS.

   WHERE HW AND CW WATER LINES ARE EXPOSED, PROVIDE COPPER WATER TUBING WITH 1" THICK PREFORMED FIBERGLASS PIPE INSULATION AND 20 MIL THICK WHITE PVC JACKET.

   NEW GAS REGULATOR. SEE DRAWING P100.

SCALE: 1/4" = 1'-0"
PIPE SUPPORT DETAIL

NOTE:

NOT TO SCALE

OVERSIZE CLEVIS HANGER.
MOUNT ON OUTSIDE OF INSULATION SHIELD.
SIZE SHIELD TO PREVENT COMPRESSION OF INSULATION.
VAPOR SEAL ALL SEAMS, JOINTS, AND TERMINALS WHEN USED ON LOW TEMPERATURE PIPE.

RIGID CALCIUM SILICATE BLOCK INSULATION.
EXTEND 6" BEYOND SHIELD.

PIPE INSULATION (SEE SPECIFICATIONS).

HANGER ROD DETAIL APPLIES TO ALL DOMESTIC WATER AND PIPING.

DOMESTIC WATER PIPE SUPPORT DETAIL

NOT TO SCALE

EXTEND ISOLATION SERVICE JACKET CONTINUOUS.
VAPOR SEAL ALL ABUTMENTS, SEAMS AND JOINTS.
CONNECT TO STRUCTURE OVERLAPPING GALVANIZED STEEL SHEET METAL JACKET.
SIZED TO MATCH MAXIMUM ALLOWABLE PIPE TRAVEL.
ATTACH TO WALL STRUCTURE RIGID CALCIUM SILICATE - 100 PSI. COMPRESSIVE STRENGTH.
TOP & BOTTOM HALVES GLUED WITH INDUSTRIAL CONTACT CEMENT.

CONDENSATE PUMP DETAIL

NOT TO SCALE

PUMP TO DRAIN
OVERFLOW DETECTION LEAD WIRES TO FURNACE.
FURNACE TO BE DE-ENERGIZED UPON DETECTION OF CONDENSATE OVERFLOW.

COMMON CONDENSATE DRAIN LINE FROM FURNACE AND COOLING COIL (TYP).
INLET OPENING (TYP-3)
3/4" 6' LONG 3 CONDUCTOR CABLE W/ GROUNDED 3-PRONG PLUG.

STAINDLESS STEEL BAND CLAMP (TYP).
CLEAR VINYL TUBING SIZED TO MATCH PIPING BARBED DISCHARGE WITH INTEGRAL CHECK VALVE.
COLLECTION TANK WITH FLOAT CONTROL AND OVERFLOW DETECTION.
PUMP MOTOR.

CIRCULATING PUMP DETAIL

NOT TO SCALE

STRAINER W/BLOWOFF VALVE, THREADED HOSE CONNECTION AND CAP.
HOT WATER CIRCULATING LINE FROM SYSTEM PUMP DISCHARGE LINE TO WATER HEATER.
BALANCING VALVE CHECK VALVE BALL VALVE (TYP.)
UNION (TYP.)
CIRCULATING PUMP 3/4" CP-1.
PLUMBING EQUIPMENT SCHEDULE

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<td>QC</td>
<td>LOW-TURNDOWN ELECTRIC STORAGE TANK FOR 10 GALLON STORAGE TANK, 1/25 HP 120 VOLT, 1 PHASE, 1/2&quot; NPT CONNECTION</td>
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<td>QC</td>
<td>LIFT PUMP, CONDENSATE LIFT PUMP, 1/2 GALLON STORAGE TANK WITH INTEGRAL CHECK VALVE, MAXIMUM WATER FLOW 5 GPM, 1/2&quot; NPT CONNECTION</td>
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<td>VCMA</td>
<td>1/30 HP 120 VOLT, 1 PHASE</td>
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| VCMA   | DOMESTIC WATER, BRONZE CONSTRUCTION, MANUFACTURER: DOMINION, SIZE: 18" DIA X 24.75" HIGH, MANUFACTURER'S WRITTEN INSTRUCTIONS AND CONSTRUCTION INDUSTRY COORDINATION PROCEDURES: CONTRACTOR SHALL COORDINATE ALL PLUMBING (PL) WORKMANSHIP: ALL PLUMBING WORK TO BE INSTALLED IN A PROFESSIONAL AND GOOD QUALITY, UNLESS OTHERWISE REQUIRED OR PERMITTED BY THE CONTRACT CODE COMPLIANCE: ALL PLUMBING WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE CODES AND CODES OF THE CITY OF OGDEN, UTAH, AND WHERE NOT IN DISCREPANCY FROM THOSE CONDITIONS ORDINARILY FOUND TO EXIST, THE MATERIALS AND EQUIPMENT FURNISHED UNDER THE CONTRACT WILL BE NEW AND OF GOOD QUALITY, UNLESS OTHERWISE REQUIRED OR PERMITTED BY THE CONTRACT TRANSITIONS AS NEEDED TO FACILITATE INSTALLATION OF THE PLUMBING SYSTEMS IN TRANSITIONS AS NEEDED TO FACILITATE INSTALLATION OF THE PLUMBING SYSTEMS IN TRANSITIONS AS NEEDED TO FACILITATE INSTALLATION OF THE PLUMBING SYSTEMS IN TRANSITIONS AS NEEDED TO FACILITATE INSTALLATION OF THE PLUMBING SYSTEMS IN TRANSITIONS AS NEEDED TO FACILITATE INSTALLATION OF THE PLUMBING SYSTEMS IN TRANSITIONS AS NEEDED TO FACILITATE INSTALLATION OF THE PLUMBING SYSTEMS IN TRANSITIONS AS NEEDED TO FACILITATE INSTALLATION OF THE PLUMBING SYSTEMS IN TRANSITIONS AS NEEDED TO FACILITATE INSTALLATION OF THE PLUMBING SYSTEMS IN TRANSITIONS AS NEEDED TO FACILITE
### Mechanical Equipment Schedule

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<td>Annex</td>
<td>50</td>
<td>1500</td>
<td>80%</td>
</tr>
<tr>
<td>Example 2</td>
<td>456</td>
<td>Example</td>
<td>2150</td>
<td>Annex</td>
<td>30</td>
<td>2000</td>
<td>75%</td>
</tr>
</tbody>
</table>

### Electrical Schedules

#### Panel 1 (EX)

<table>
<thead>
<tr>
<th>Panel No.</th>
<th>Total KVA</th>
<th>Service</th>
<th>Transformer</th>
<th>Blown Fuses</th>
<th>Locked Out</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30</td>
<td>500</td>
<td>250</td>
<td>1</td>
<td>2</td>
<td>EQ1</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>400</td>
<td>150</td>
<td>0</td>
<td>1</td>
<td>EQ2</td>
</tr>
</tbody>
</table>

#### Panel 2 (EX)

<table>
<thead>
<tr>
<th>Panel No.</th>
<th>Total KVA</th>
<th>Service</th>
<th>Transformer</th>
<th>Blown Fuses</th>
<th>Locked Out</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>10</td>
<td>100</td>
<td>25</td>
<td>0</td>
<td>2</td>
<td>EQ3</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>200</td>
<td>50</td>
<td>1</td>
<td>1</td>
<td>EQ4</td>
</tr>
</tbody>
</table>

### Notes
- All equipment and panel boards are listed for reference.
- Electrical panels are located at the specified locations.
- Equipment and panel boards are labeled accordingly.
- All necessary safety precautions are followed.