

|       |                                |
|-------|--------------------------------|
| DX    | DIRECT EXPANSION               |
| ESP   | EXTERNAL STATIC PRESSURE       |
| LAT   | LEAVING AIR TEMPERATURE        |
| EAT   | ENTERING AIR TEMPERATURE       |
| EF-1  | EXHAUST FAN                    |
| DN    | DOWN                           |
| OSA   | OUTSIDE AIR                    |
| EAD   | EXHAUST AIR DUCT               |
| RA    | RETURN AIR                     |
| RAD   | RETURN AIR DUCT                |
| SA    | SUPPLY AIR                     |
| SAD   | SUPPLY AIR DUCT                |
| TAD   | TRANSFER AIR DUCT              |
| AFF   | ABOVE FINISHED FLOOR           |
| CFM   | CUBIC FEET PER MINUTE          |
| TYP   | TYPICAL                        |
| 8φ    | ROUND DUCTWORK                 |
| AHU-1 | AIR HANDLING UNIT              |
| CU-1  | CONDENSING UNIT                |
| 10x6  | RECTANGULAR DUCT (WIDTHxDEPTH) |

|  |                           |
|--|---------------------------|
|  | SUPPLY DUCT IN SECTION    |
|  | RETURN DUCT IN SECTION    |
|  | EXHAUST DUCT IN SECTION   |
|  | SMOKE DETECTOR            |
|  | VOLUME DAMPER             |
|  | MOTORIZED DAMPER          |
|  | TURNING VANES             |
|  | SUPPLY DIFFUSER           |
|  | DIFFUSER CFM AND TYPE     |
|  | RETURN/EXHAUST AIR DEVICE |
|  | AIRFLOW DIRECTION         |
|  | THERMOSTAT                |

**1 ABBREVIATIONS - MECHANICAL**

NOT TO SCALE

1. REFER TO 2012 INTERNATIONAL BUILDING CODE.
2. SEISMIC RESTRAINTS SHALL NOT BE REQUIRED FOR THE FOLLOWING INSTALLATIONS:
  - A. PIPING IN MECHANICAL ROOMS (EXCEPT GAS PIPING) LESS THAN 1-1/4 INCH INSIDE DIAMETER
  - B. ALL OTHER PIPING (EXCEPT GAS PIPING) LESS THAN 2-1/2 INCH INSIDE DIAMETER.
  - C. ALL RECTANGULAR DUCTS LESS THAN 6 SQ. FT. IN CROSS-SECTIONAL AREA.
  - D. ALL ROUND DUCTS LESS THAN 28 INCHES IN DIAMETER.
  - E. ALL PIPING SUSPENDED BY INDIVIDUAL HANGERS 12 INCHES OR LESS IN LENGTH FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE SUPPORT FOR THE HANGER.
  - F. ALL DUCTS SUSPENDED BY HANGERS 12 INCHES OR LESS IN LENGTH FROM THE TOP OF THE DUCT TO THE BOTTOM OF THE SUPPORT FOR THE HANGER.

**3 SEISMIC NOTES - MECHANICAL**

NOT TO SCALE

**2 SYMBOLS - MECHANICAL**

NOT TO SCALE

1. FURNISH AND INSTALL ALL NECESSARY LABOR AND MATERIALS FOR A COMPLETE SYSTEM. ANY APPLIANCES OR MATERIALS OBVIOUSLY A PART OF THE SYSTEM AND NECESSARY FOR ITS PROPER OPERATION, ALTHOUGH NOT SPECIFICALLY MENTIONED HEREIN, SHALL BE FURNISHED AND INSTALLED AS IF CALLED FOR IN DETAIL.
2. WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL CODES.
3. ATTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES.
4. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND DO NOT NECESSARILY SHOW FITTING AND DETAIL. INSTALL DUCTS, EQUIPMENT, PIPING, ETC. IN A NEAT WORKMANLIKE MANNER, AND IN ACCORDANCE WITH GOOD PRACTICE FOR A COMPLETE WORKABLE INSTALLATION. AVOID CONFLICT WITH OTHER WORK; MAKE ADEQUATE PROVISIONS FOR PREVENTING NOISE AND VIBRATION. ARRANGE EQUIPMENT INTO THE AVAILABLE SPACE IN A MANNER TO MAKE ALL WORKING PARTS ACCESSIBLE FOR MAINTENANCE AND SERVICE.
5. MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED AGAINST DEFECTS FOR ONE YEAR.
6. PROTECT ALL MATERIALS AND EQUIPMENT FROM DAMAGE.
7. CONSTRUCT AIR DUCTS IN ACCORDANCE WITH SMACNA DUCT MANUALS LATEST EDITION.
8. HVAC WORK INDICATED DIAGRAMMATICALLY, EXACT LOCATION OF ALL COMPONENTS ARE TO BE DETERMINED IN THE FIELD AND BY THE ACTUAL BUILDING CONDITIONS.
9. ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES BEFORE ANY INSTALLATION IS MADE.
10. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH STATE CODES, MANUFACTURER'S APPROVED PUBLISHED LITERATURE, AND AUTHORITIES HAVING JURISDICTION. A COPY OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE LOCATED ON THE JOB SITE AT ALL TIMES.
11. INSTALLATION OF ALL EQUIPMENT SHALL PERMIT ACCESSIBILITY FOR SERVICE AND/OR REPLACEMENT. A PERMANENT MEANS OF ACCESS IS REQUIRED FOR EQUIPMENT INSTALLED ON ROOFS OR ELEVATED STRUCTURES EXCEEDING 16'-0".
12. COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE ORDERING.
13. FLEXIBLE DUCT RUNOUTS TO CEILING DIFFUSERS SHALL BE INSTALLED FREE OF KINKS AND SAGS. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 3'-0".
14. COMPLETION AND TESTS SHALL INCLUDE CLEANING AND LUBRICATION OF ALL EQUIPMENT, AND ADJUSTMENTS FOR PROPER OPERATION. ADJUST DAMPERS, REGISTERS AND DIFFUSERS FOR PROPER AIR DISTRIBUTION. CHECK SYSTEM UNDER ACTUAL OPERATING CONDITIONS AND MAKE ADJUSTMENTS FOR A UNIFORM TEMPERATURE THROUGH THE CONDITIONED SPACE.
15. LOCATIONS SHOWN FOR EQUIPMENT ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL COORDINATE WITH THE FIELD CONDITIONS FOR THE EXACT LOCATION AND MODIFY DUCTS/PIPES ACCORDINGLY.
16. CONTRACTOR SHALL FIELD VERIFY AVAILABLE SPACE FOR DUCTWORK BEFORE FABRICATING. CONTRACTOR SHALL MODIFY DUCTWORK TO FIT AVAILABLE FIELD CONDITIONS.
17. SIZE REFRIGERANT PIPING PER MANUFACTURERS RECOMMENDATIONS FOR ACTUAL LINE LENGTHS AND VERTICAL LIFT REQUIRED.
18. ALL EXTERIOR WALL AND ROOF PENETRATIONS SHALL BE SEALED WATERPROOF.
19. PROVIDE FIRESTOP WHERE PIPES, CONDUITS, BUS DUCTS, WIRES, DUCTS, AND SIMILAR BUILDING SERVICE EQUIPMENT PENETRATING RATED FLOORS AND WALLS.
20. ALL CEILING EQUIPMENT SHALL BE INSTALLED IN SUCH A WAY THAT LIGHTS, PIPING, AND DUCTWORK DO NOT BLOCK ACCESS TO UNITS AND RELATED ACCESSORIES.
21. GAS PIPING - STEEL PIPE: ASTM A 53/A 53M, BLACK STEEL, SCHEDULE 40, TYPE E OR S, GRADE B.
  1. MALLEABLE-IRON THREADED FITTINGS: ASME B16.3, CLASS 150, STANDARD PATTERN.
  2. WROUGHT-STEEL WELDING FITTINGS: ASTM A 234/A 234M FOR BUTT WELDING AND SOCKET WELDING.
  3. UNIONS: ASME B16.39, CLASS 150, MALLEABLE IRON WITH BRASS-TO-IRON SEAT, GROUND JOINT, AND THREADED ENDS.
 PIPING 3/4" TO 2" FOR SYSTEMS WITH OPERATING PRESSURE OF 2 PSIG OR LESS SHALL HAVE THREADED JOINTS. PIPING OVER 2" WITH AN OPERATING PRESSURE OF 2 PSIG OR LESS SHALL HAVE WELDED JOINTS. ALL PIPING WITH AN OPERATING PRESSURE OVER 2 PSIG SHALL BE WELDED.

**4 SPECIFICATIONS - MECHANICAL**

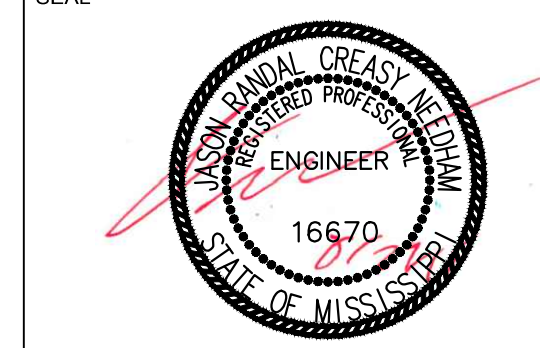
NOT TO SCALE

22. ALL DUCT SIZES SHOWN ARE NET INSIDE CLEAR DIMENSIONS.
23. PROVIDE VOLUME DAMPERS AT EACH BRANCH TAKEOFF AND IN SUCH OTHER LOCATIONS WHERE REQUIRED TO PROPERLY BALANCE THE SYSTEM.
24. PROVIDE INSTRUMENT TEST HOLES WITH CAPS IN AIR DISTRIBUTION SYSTEMS WHEREVER VOLUME DAMPERS ARE LOCATED.
25. ALL MISCELLANEOUS STRUCTURAL SUPPORTS REQUIRED FOR HVAC EQUIPMENT INSTALLATIONS SHALL BE PROVIDED BY HVAC CONTRACTOR.
26. ALL TRANSFER DUCTS SHALL BE INTERNALLY LINED.
27. ALL MITERED ELBOWS SHALL BE PROVIDED WITH TURNING VANES. ALL ROUND ELBOWS SHALL A CENTER TO FACE OF 1.5 X THE DUCT WIDTH.
28. CONTRACTOR SHALL FURNISH TESTING & BALANCING REPORT TO ENGINEER & OWNER PRIOR TO FINAL INSPECTION TO VERIFY REQUIRED PERFORMANCE HAS ACHIEVED.
29. ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASES OR SUSPENDED CEILINGS UNLESS OTHERWISE NOTED.
30. ACCESS PANELS IN SUSPENDED CEILINGS ARE REQUIRED FOR ALL VALVES, DAMPERS, CONTROLS, ETC., AND SHALL BE FURNISHED UNDER ARCHITECTURAL SPECIFICATIONS.
31. DUCTWORK AND RELATED SHEET METAL WORK:
  - A. CLASSIFICATION: LOW PRESSURE DUCTWORK SHALL BE LIMITED TO SYSTEMS OPERATING AT STATIC PRESSURES OF TWO INCHES OF WATER OR LESS AND HIGH PRESSURE DUCTWORK SHALL BE SYSTEMS OPERATING ABOVE TWO INCHES WATER COLUMN.
  - B. MATERIALS: MATERIALS SHALL COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE" FOR ACCEPTABLE MATERIALS, MATERIAL THICKNESS, AND DUCT CONSTRUCTION METHODS UNLESS OTHERWISE INDICATED. SHEET METAL MATERIALS SHALL BE FREE OF PITTING, SEAM MARKS, ROLLER MARKS, STAINS, DISCOLORATIONS, AND OTHER IMPERFECTIONS. THE GALVANIZED SHEET COATING SHALL BE G80 (Z180) CONFORMING TO ASTM A 653/A 653M. HIGH PRESSURE ROUND DUCTS SHALL BE MACHINE LUBRICATED SPIRAL LOCK SEAM TYPE. ROUND FITTINGS AND ROUND SPIRAL DUCT SHALL BE AS MANUFACTURED BY SHEET METAL CONNECTORS, INC; LINDAB, INC.; SPIRAL MANUFACTURING COMPANY, INC; OR EQUAL. GASKETS FOR HIGH PRESSURE DUCTS SHALL BE 3M TYPE 1202 OR EQUAL REINFORCED SYNTHETIC RUBBER SEALANT TYPE NOT LESS THAN 1/4 INCH THICK AND 3/8" WIDE; LIQUID DUCT SEALANT SHALL BE BRUSH OR FLOW GUN GRADE WHICH REMAINS FLEXIBLE AFTER AIR CURING, 3M TYPE 800 OR EQUAL.
  - C. CONSTRUCTION: CONSTRUCT DUCTWORK (EXCEPT FLEXIBLE DUCTING) WITH CAREFUL, NEAT, AND ACCURATE WORKMANSHIP, AND AIRTIGHT JOINTS AND SEAMS. CONSTRUCT DUCTWORK AND INSTALL IN ACCORDANCE WITH LATEST EDITIONS OF SMACNA'S "LOW VELOCITY DUCT CONSTRUCTION STANDARDS" OR AS APPLICABLE TO CLASSIFICATION OF DUCTWORK INVOLVED, INCLUDING ALL APPLICABLE RECOMMENDATIONS OF THESE STANDARDS.
32. ALL DUCTWORK SHALL BE INSULATED EXTERNALLY WITH TWO INCH FLEXIBLE FIBERGLASS DUCT WRAP. INSULATION SHALL COMPLY WITH ANSI/ASTM C612; COMMERCIAL GRADE; 'K' VALUE OF 0.29 AT 75 °F. PROVIDE A 0.002 INCH FOIL SCRIM FACING FOR DUCTWORK INSULATION. SECURE INSULATION WITH VAPOR BARRIER WITH WIRES AND SEAL JACKET JOINTS WITH VAPOR BARRIER ADHESIVE OR TAPE TO MATCH JACKET. SECURE INSULATION WITHOUT VAPOR BARRIER WITH STAPLES, TAPE, OR WIRES. RETURN AIR DUCTS SHALL BE INSULATED W/ 1" ACOUSTICAL DUCT LINER, 1.5 PCF MIN. DENSITY.

JVD OFFICE

SOUTHAVEN, MS

SEAL



COPY RIGHTED BY  
BYRON B. CARSON, JR., AIA-ARCHITECT - 2014  
DRAWINGS, SPECIFICATIONS, AND DESIGN  
CONCEPTS CONTAINED HERewith SHALL NOT BE  
USED OR REPRODUCED IN WHOLE OR IN ANY  
FORM WITHOUT THE WRITTEN CONSENT OF -  
BYRON B. CARSON, JR., AIA-ARCHITECT. DO NOT  
SCALE THESE DRAWINGS. USE GIVEN  
DIMENSIONS ONLY. IF NOT SHOWN, VERIFY  
CORRECT DIMENSIONS WITH THE ARCHITECT.  
CONTRACTOR SHALL VERIFY ALL DIMENSIONS  
PRIOR TO INSTALLATION OF THE WORK  
DESCRIBED HEREIN.

CONSULTANTS



ISSUES & REVISIONS

| NO. | DATE       | DESCRIPTION |
|-----|------------|-------------|
| 1   | 08/11/2015 | Review Set  |
| 2   | 08/24/2015 | Bid Set     |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |

PROJECT NAME:

PROJECT NUMBER:

DRAWING NAME:

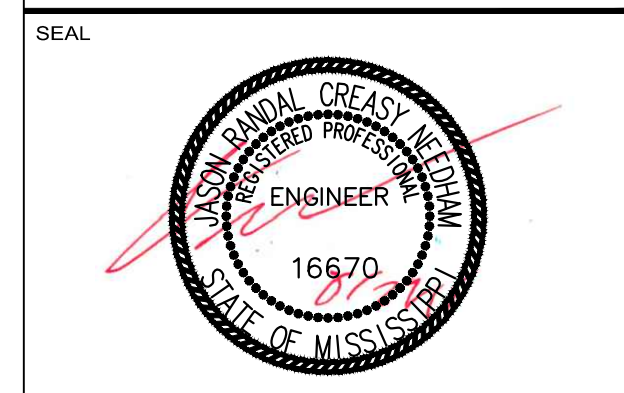
ABBREVIATIONS, SYMBOLS,  
SPECIFICATIONS, NOTES -  
MECHANICAL

DRAWN BY: MDN  
CHECKED BY: JRN  
DATE: 08-24-15  
SCALE: AS NOTED

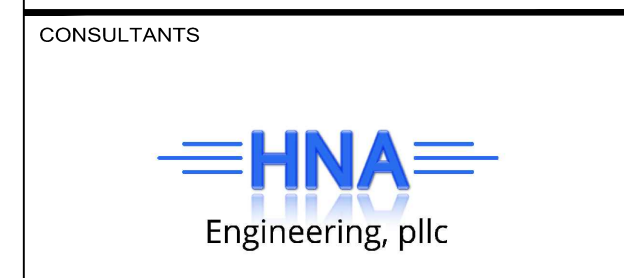
DRAWING NUMBER

M001

JVD OFFICE  
SOUTHAVEN, MS



COPY RIGHTED BY  
BYRON B. CARSON, JR., AIA-ARCHITECT - 2014  
DRAWINGS, SPECIFICATIONS, AND DESIGN  
CONCEPTS CONTAINED HEREWITH SHALL NOT BE  
USED OR REPRODUCED IN WHOLE OR IN ANY  
FORM, WITHOUT THE WRITTEN CONSENT OF -  
BYRON B. CARSON, JR., AIA-ARCHITECT. DO NOT  
SCALE THESE DRAWINGS. USE GIVEN  
DIMENSIONS ONLY. IF NOT SHOWN, VERIFY  
CORRECT DIMENSIONS WITH THE ARCHITECT.  
CONTRACTOR SHALL VERIFY ALL DIMENSIONS  
PRIOR TO INSTALLATION OF THE WORK  
DESCRIBED HEREIN.



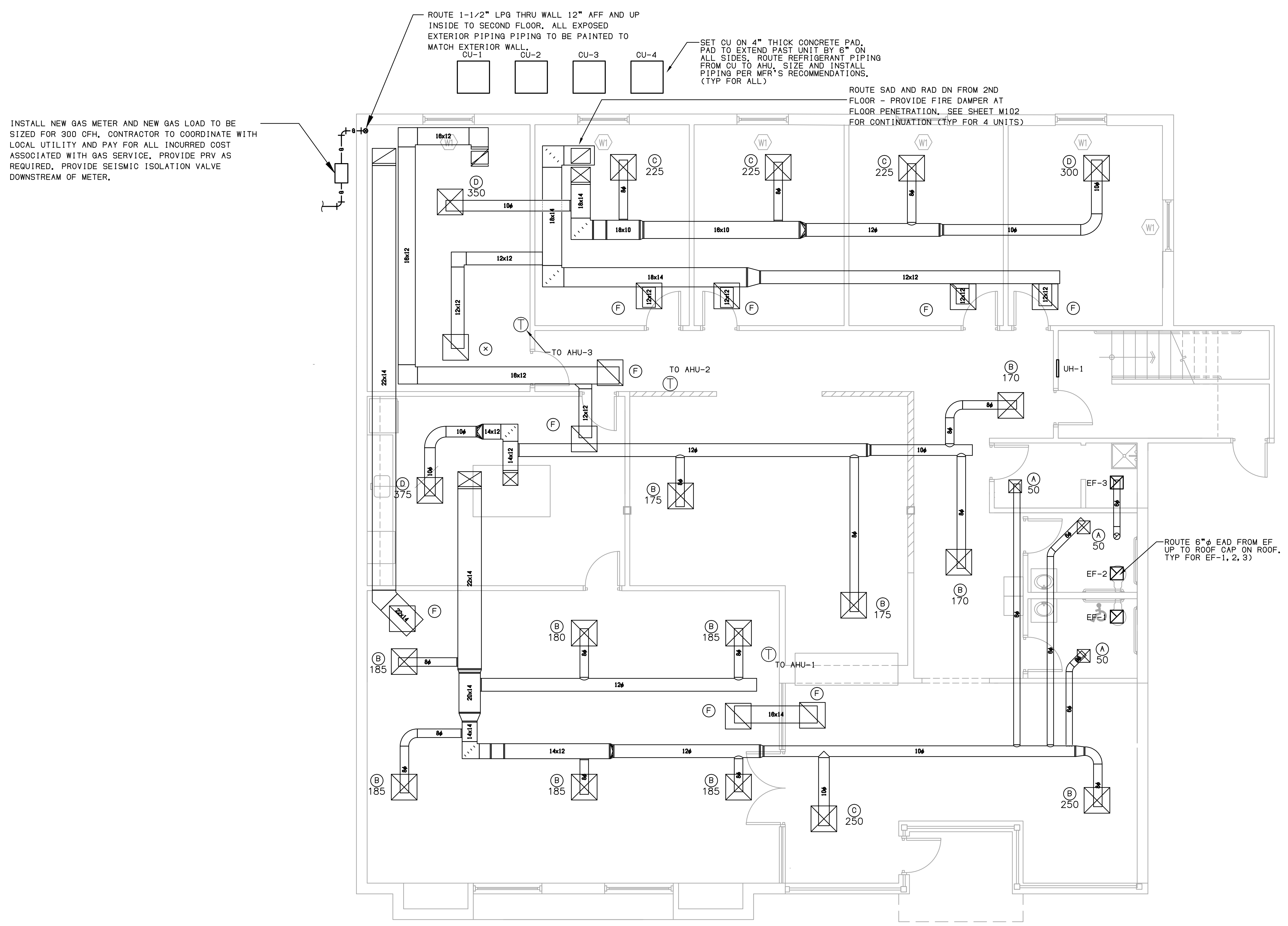
ISSUES & REVISIONS

| NO. | DATE       | DESCRIPTION |
|-----|------------|-------------|
| 1   | 08/11/2015 | Review Set  |
| 2   | 08/24/2015 | Bid Set     |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |

PROJECT NAME:  
  
  
  
  
  
  
  
  
  
  
PROJECT NUMBER:  
DRAWING NAME:  
  
**FIRST FLOOR PLAN - MECHANICAL**

DRAWN BY: MDN  
CHECKED BY: JRN  
DATE: 08-24-15  
SCALE: AS NOTED

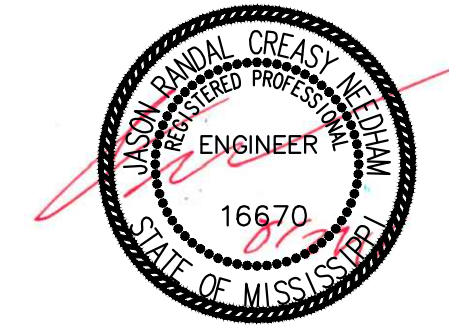
DRAWING NUMBER  
  
**M101**



**1 FIRST FLOOR PLAN - MECHANICAL**  
1/4" = 1'-0"

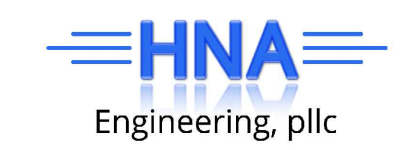
JVD OFFICE  
SOUTHAVEN, MS

SEAL



COPY RIGHTED BY:  
BYRON B. CARSON, JR., AIA-ARCHITECT - 2014  
DRAWINGS, SPECIFICATIONS, AND DESIGN  
CONCEPTS CONTAINED HEREWITH SHALL NOT BE  
USED OR REPRODUCED IN WHOLE OR IN ANY  
FORM, WITHOUT THE WRITTEN CONSENT OF -  
BYRON B. CARSON, JR., AIA-ARCHITECT. DO NOT  
SCALE THESE DRAWINGS. USE GIVEN  
DIMENSIONS ONLY. IF NOT SHOWN, VERIFY  
CORRECT DIMENSIONS WITH THE ARCHITECT.  
CONTRACTOR SHALL VERIFY ALL DIMENSIONS  
PRIOR TO INSTALLATION OF THE WORK  
DESCRIBED HEREIN.

CONSULTANTS



ISSUES & REVISIONS

| NO. | DATE       | DESCRIPTION |
|-----|------------|-------------|
| 1   | 08/11/2015 | Review Set  |
| 2   | 08/24/2015 | Bid Set     |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |

PROJECT NAME:

PROJECT NUMBER:

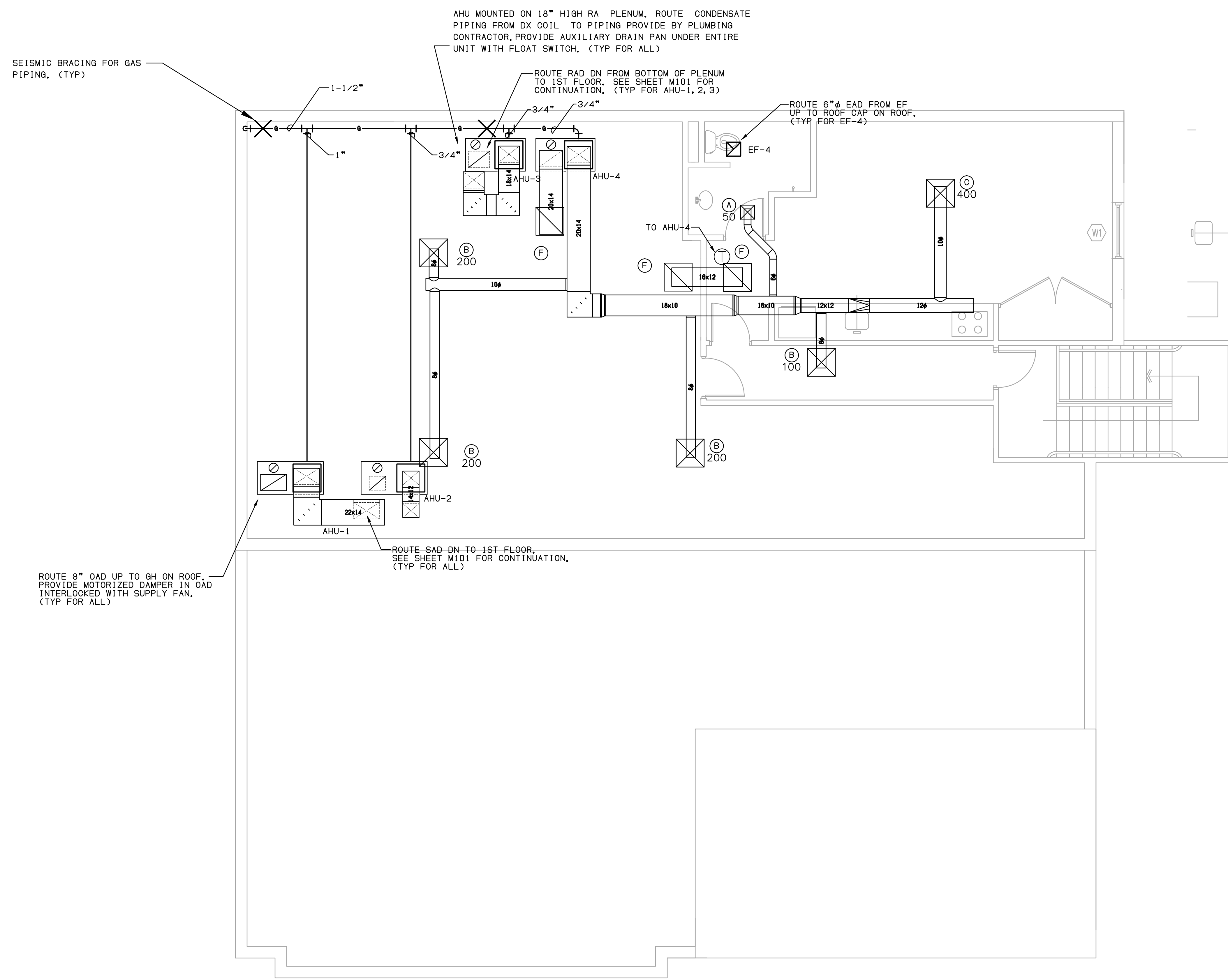
DRAWING NAME:

SECOND FLOOR PLAN -  
MECHANICAL

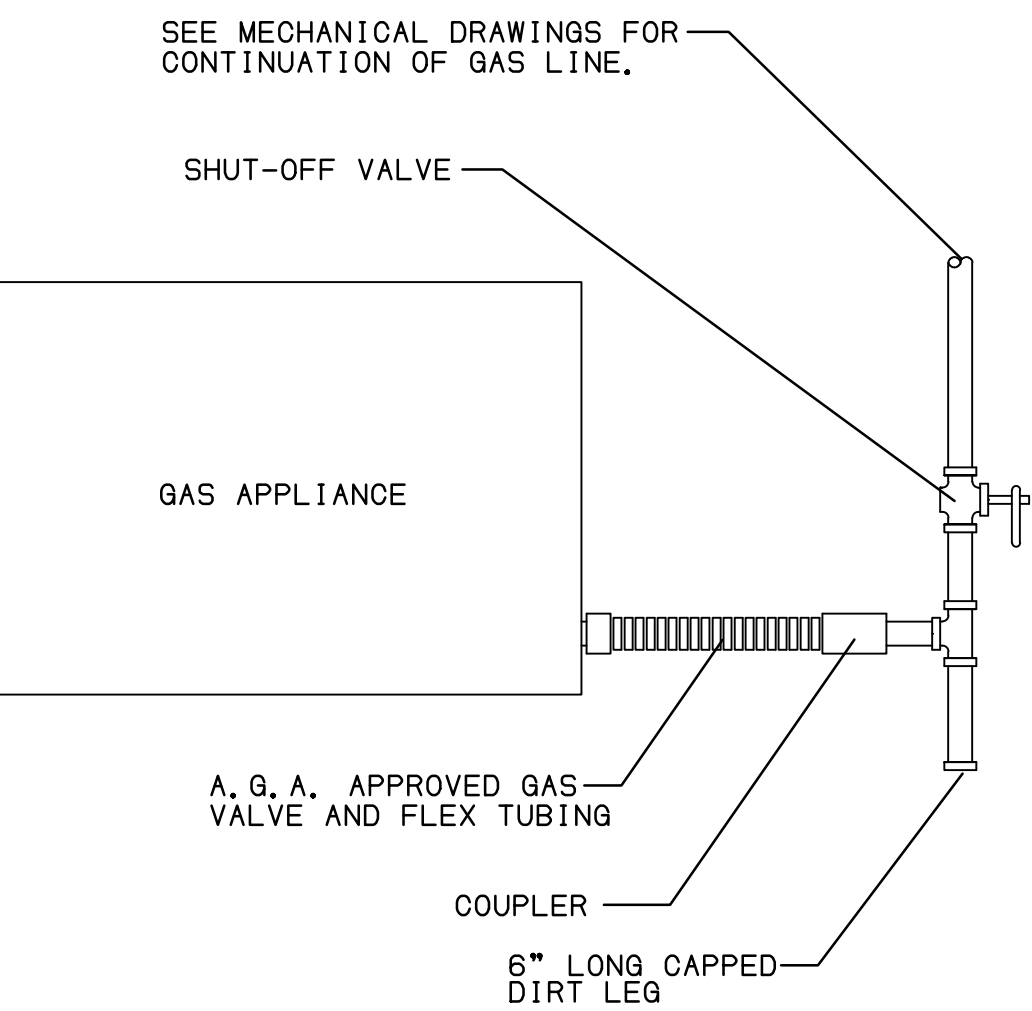
DRAWN BY: MDN  
CHECKED BY: JRN  
DATE: 08-24-15  
SCALE: AS NOTED

DRAWING NUMBER

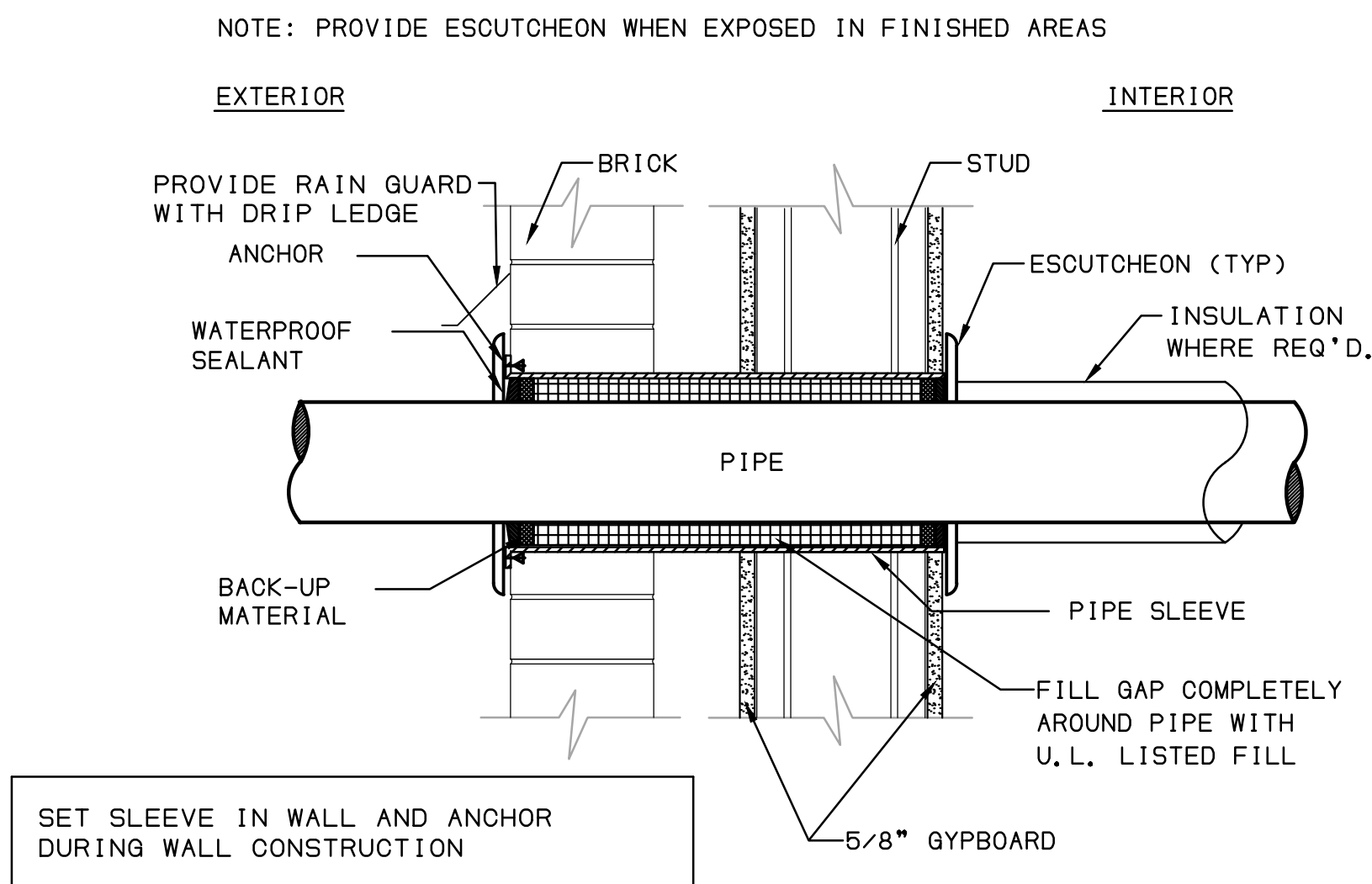
# M101



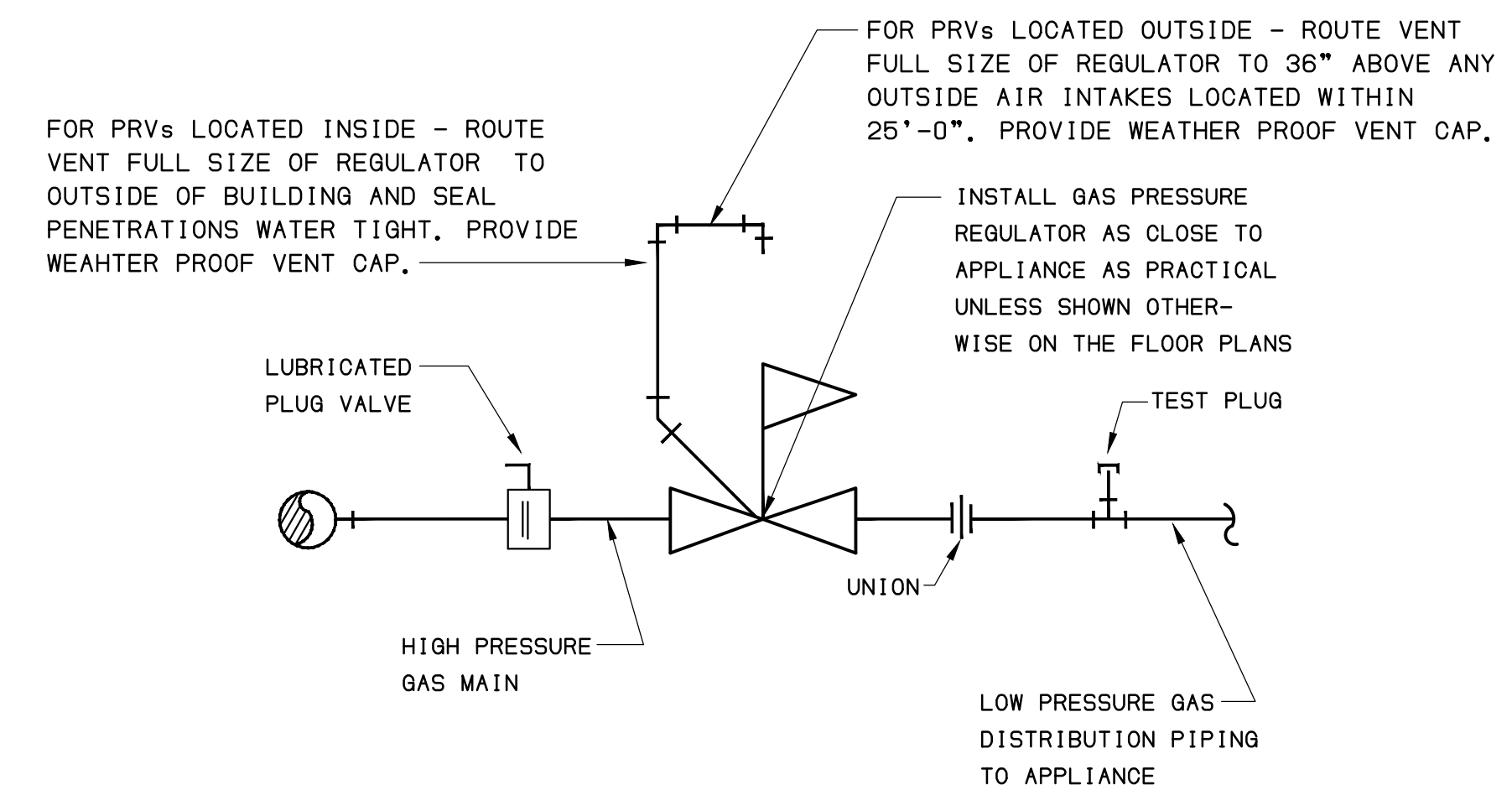
**1 SECOND FLOOR PLAN - MECHANICAL**  
1/4" = 1'-0"



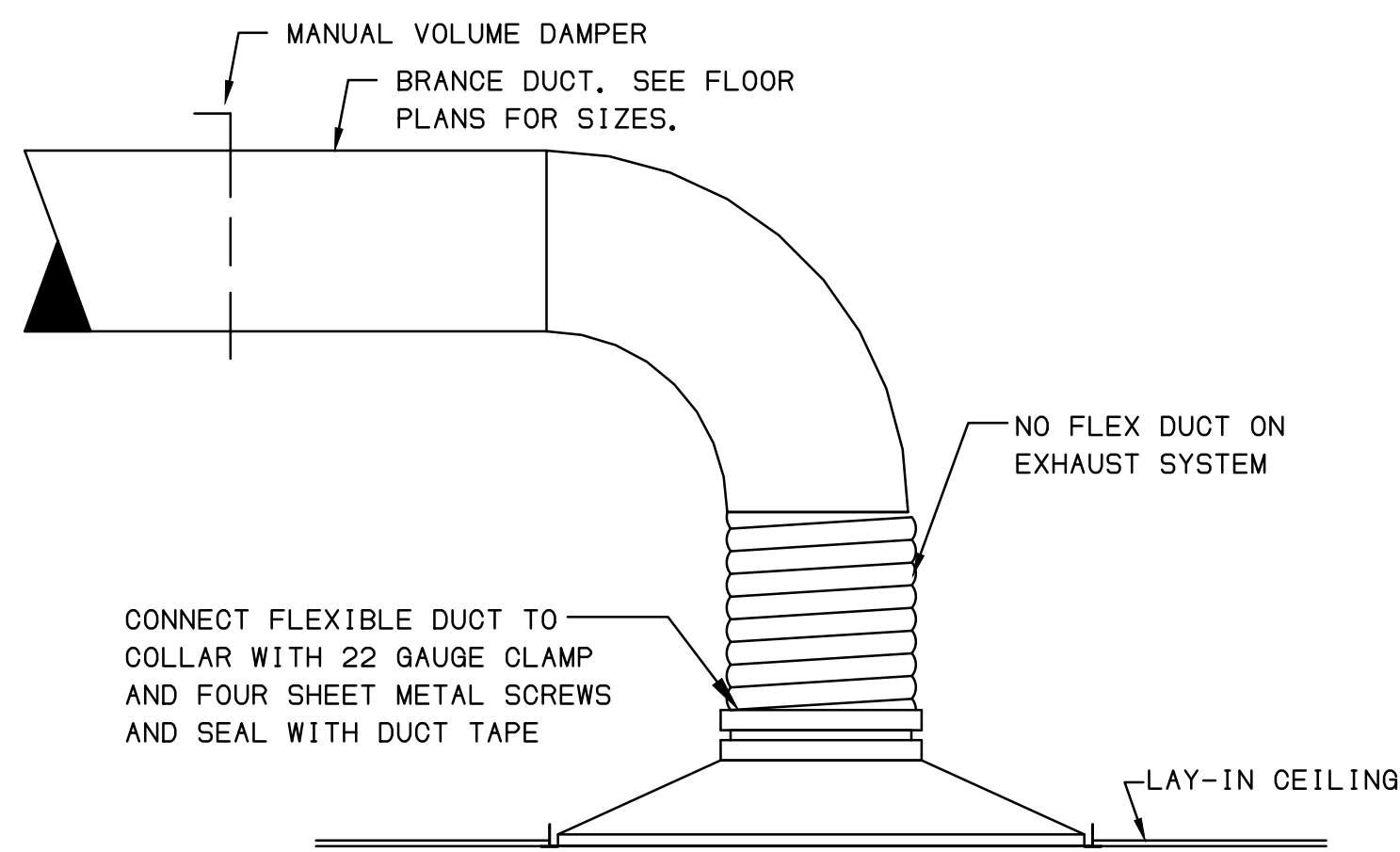
**1 GAS APPLIANCE CONNECTION DETAIL**  
NOT TO SCALE



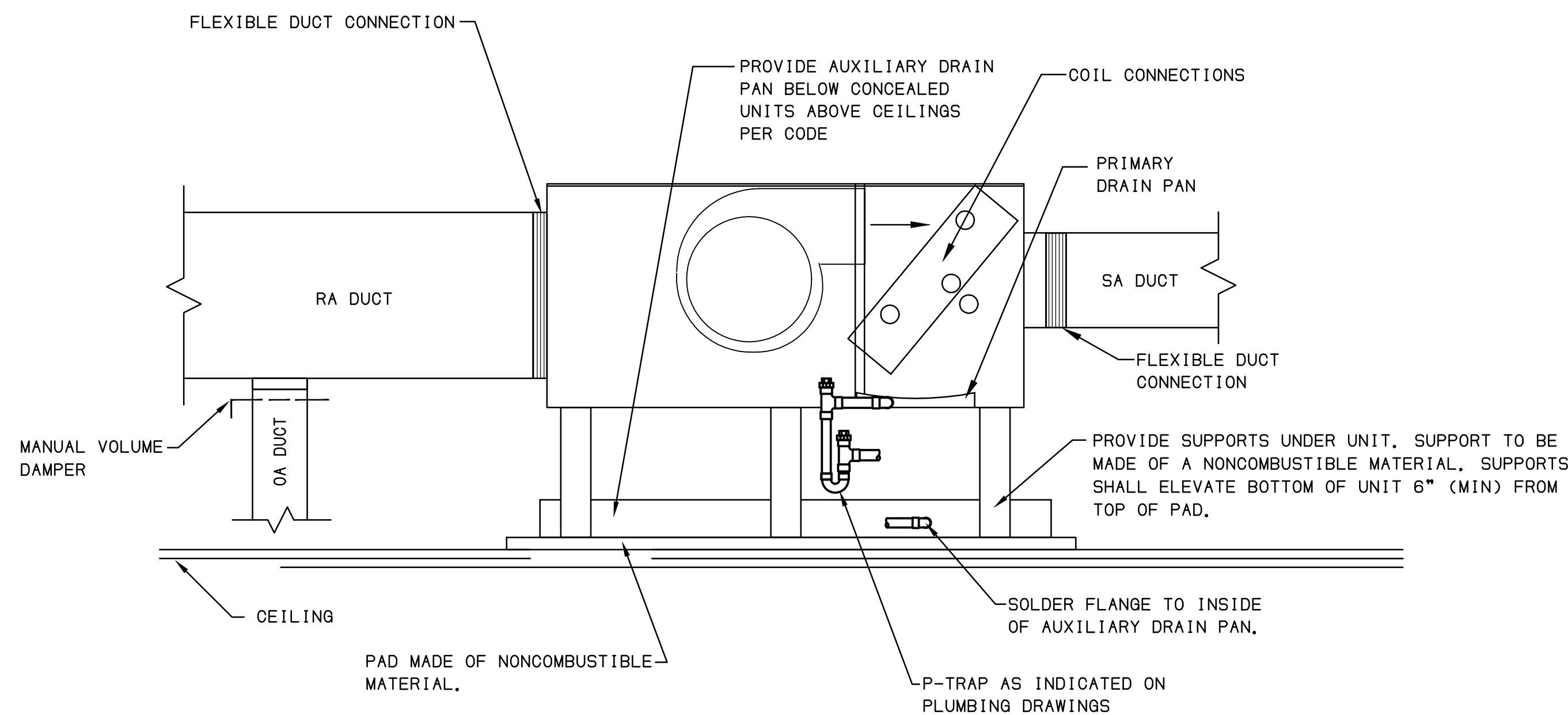
**2 PIPE PENETRATION THRU EXTERIOR WALL DETAIL**  
NOT TO SCALE



**3 GAS PRESSURE REGULATOR DETAIL**  
NOT TO SCALE

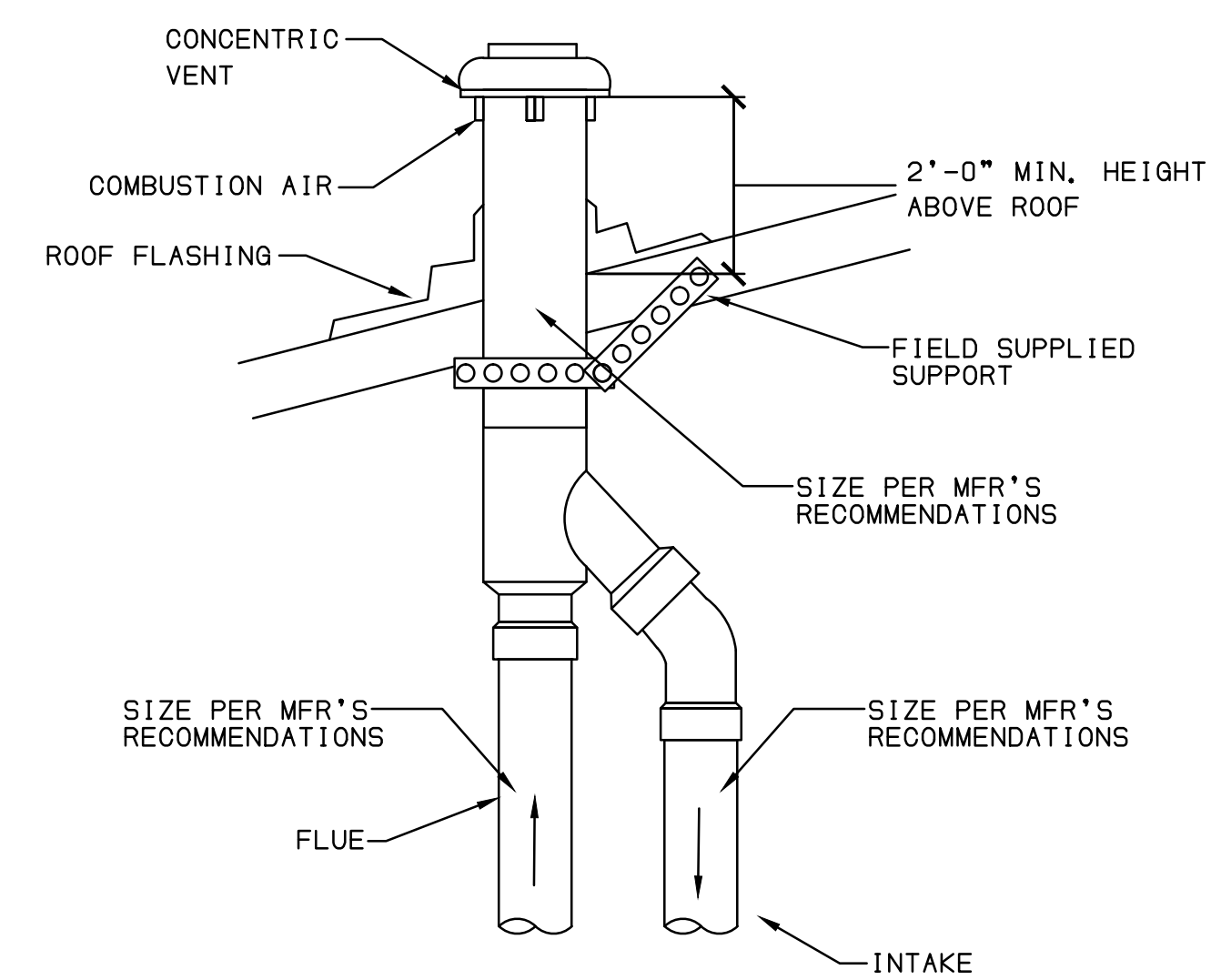


**4 DIFFUSER CONNECTION DETAIL**  
NOT TO SCALE

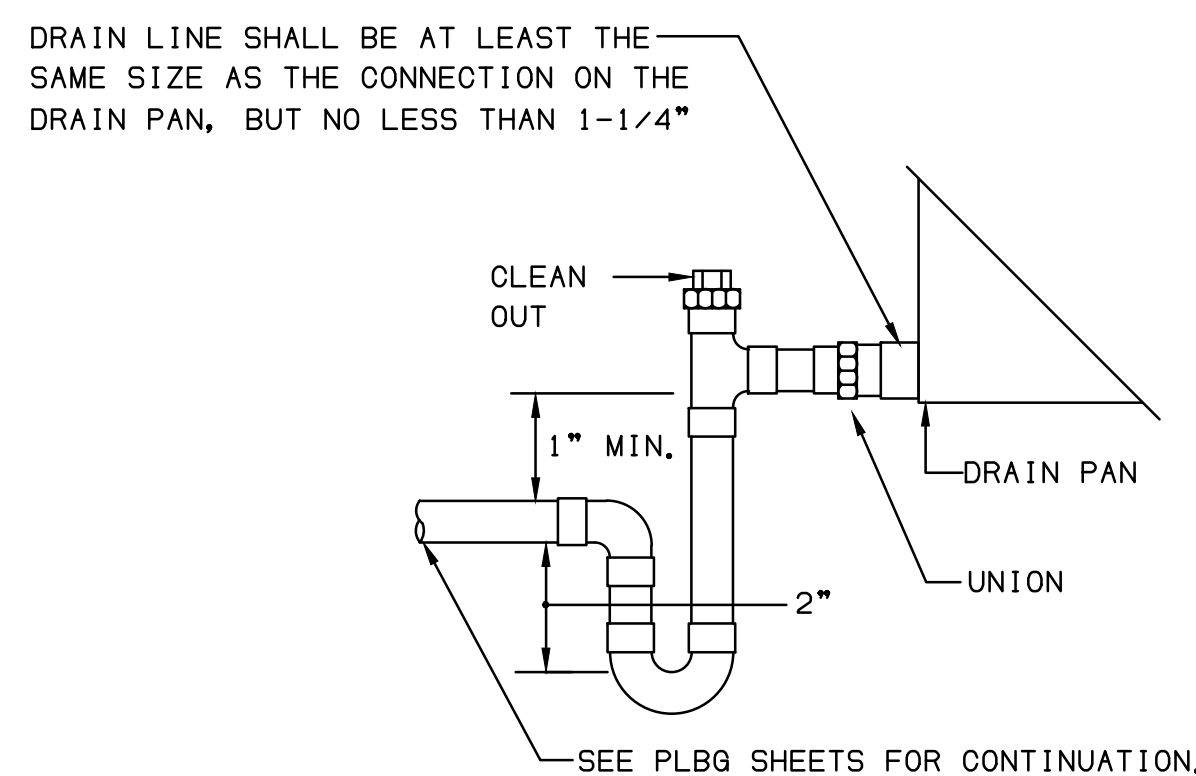


- NOTES:**
1. SOLDER OR OTHERWISE SEAL ALL JOINTS TO MAKE DRAIN PAN LEAK TIGHT.
  2. SUSPEND DRAIN PAN WITH EQUIPMENT SUPPORT RODS WHEN POSSIBLE.
  3. FABRICATE DRAIN PAN FROM 22 GA GALVANIZED SHEET METAL.
  4. EXTEND AUXILIARY DRAIN LINE TO CONSPICUOUS POINT PER CODE OR PROVIDE FLOAT SWITCH INTERLOCKED WITH SUPPLY FAN.
  5. PROVIDE WORK PLATFORM ON SERVICE SIDE OF UNIT PER CODE.

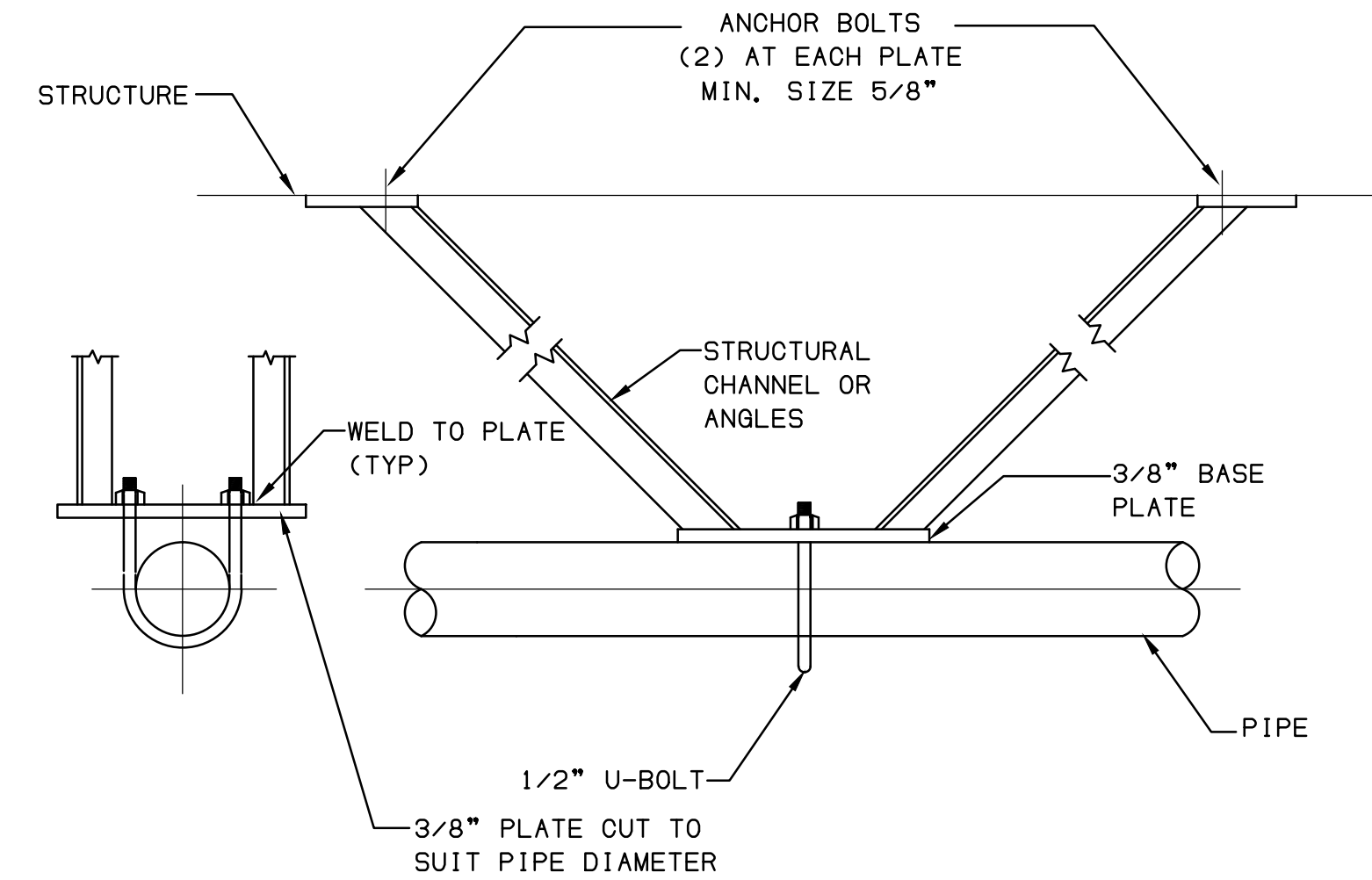
**5 HORIZONTAL AHU DETAIL**  
NOT TO SCALE



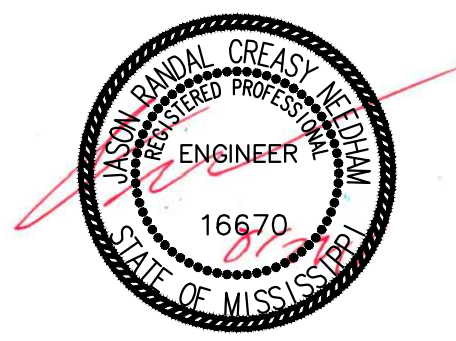
**6 CONCENTRIC VENT DETAIL**  
NOT TO SCALE



**7 CONDENSATE DRAIN TRAP DETAIL**  
NOT TO SCALE



**8 SEISMIC GAS BRACING DETAIL**  
NOT TO SCALE



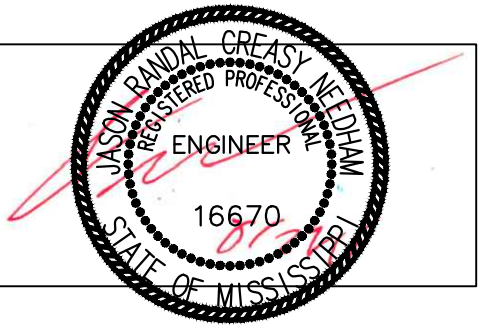
COPY RIGHTED BY  
BYRON B. CARSON, JR., AIA-ARCHITECT - 2014  
DRAWINGS, SPECIFICATIONS, AND DESIGN  
CONCEPTS CONTAINED HEREWITH SHALL NOT BE  
USED OR REPRODUCED IN WHOLE OR IN ANY  
FORM, WITHOUT THE WRITTEN CONSENT OF -  
BYRON B. CARSON, JR., AIA-ARCHITECT. DO NOT  
SCALE THESE DRAWINGS. USE GIVEN  
DIMENSIONS ONLY. IF NOT SHOWN, VERIFY  
CORRECT DIMENSIONS WITH THE ARCHITECT.  
CONTRACTOR SHALL VERIFY ALL DIMENSIONS  
PRIOR TO INSTALLATION OF THE WORK  
DESCRIBED HEREIN.



| NO. | DATE       | DESCRIPTION |
|-----|------------|-------------|
| 1   | 08/11/2015 | Review Set  |
| 2   | 08/24/2015 | Bid Set     |

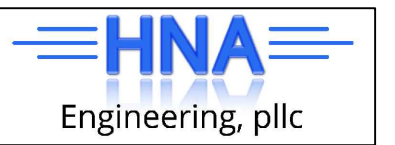
JVD OFFICE  
SOUTHAVEN, MS

SEAL



COPY RIGHTED BY  
BYRON B. CARSON, JR., AIA-ARCHITECT - 2014  
DRAWINGS, SPECIFICATIONS, AND DESIGN  
CONCEPTS CONTAINED HEREWITH SHALL NOT BE  
USED OR REPRODUCED IN WHOLE OR IN ANY  
FORM, WITHOUT THE WRITTEN CONSENT OF -  
BYRON B. CARSON, JR., AIA-ARCHITECT. DO NOT  
SCALE THESE DRAWINGS. USE GIVEN  
DIMENSIONS ONLY. IF NOT SHOWN, VERIFY  
CORRECT DIMENSIONS WITH THE ARCHITECT.  
CONTRACTOR SHALL VERIFY ALL DIMENSIONS  
PRIOR TO INSTALLATION OF THE WORK  
DESCRIBED HEREIN.

CONSULTANTS



ISSUES & REVISIONS

| NO. | DATE       | DESCRIPTION |
|-----|------------|-------------|
| 1   | 08/11/2015 | Review Set  |
| 2   | 08/24/2015 | Bid Set     |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |
|     |            |             |

PROJECT NAME:

PROJECT NUMBER:

DRAWING NAME:

SCHEDULES -  
MECHANICAL

DRAWN BY: MDN  
CHECKED BY: JRN  
DATE: 08-24-15  
SCALE: AS NOTED

DRAWING NUMBER

**M301**

**AIR DISTRIBUTION DEVICE SCHEDULE**

| MARK | NECK SIZE | FACE SIZE | MAX. N. C. RATING | MAXIMUM S. P. DROP, IN. | COMMENTS |
|------|-----------|-----------|-------------------|-------------------------|----------|
| (A)  | 6"φ       | 12x12     | 30                | 0.1                     | (1)      |
| (B)  | 8"φ       | 24x24     | 30                | 0.1                     | (1)      |
| (C)  | 10"φ      | 24x24     | 30                | 0.1                     | (1)      |
| (D)  | 12"φ      | 24x24     | 30                | 0.1                     | (1)      |
| (E)  | 6"φ       | 12x12     | 30                | 0.1                     | (2)      |
| (F)  | 22x22     | 24x24     | 30                | 0.1                     | (2)      |

(1) SUPPLY AIR DEVICE TO BE LOUVERED FULL FACE TYPE EQUAL TO TITUS TMS.

(2) RETURN/EXHAUST AIR DEVICE TO BE TITUS 50F EGG CRATE.

**GAS-FIRED AIR HANDLING UNIT SCHEDULE**

| MARK  | GENERAL DATA |     |                  | ELECTRICAL DATA |             | DX COOLING COIL DATA |               |       |                 | GAS HEATING SECTION DATA |                     |               |             | COMMENTS |              |
|-------|--------------|-----|------------------|-----------------|-------------|----------------------|---------------|-------|-----------------|--------------------------|---------------------|---------------|-------------|----------|--------------|
|       | CFM          | OSA | EXT. S. P. W. G. | MOTOR HP        | VOLTS/PHASE | REFRIGERANT          | ENT. AIR TEMP |       | SENSIBLE BTU/HR | TOTAL BTU/HR             | ENT. AIR TEMP ° Fdb | NO. OF STAGES | INPUT BTU/H |          | OUTPUT BTU/H |
|       |              |     |                  |                 |             |                      | ° Fdb         | ° Fwb |                 |                          |                     |               |             |          |              |
| AHU-1 | 1800         | 200 | 0.7              | 3/4             | 120/1       | R-410A               | 80            | 67    | 44,000          | 60,000                   | 60                  | 2             | 90,000      | 110,000  | (1)(2)(3)(4) |
| AHU-2 | 1065         | 150 | 0.7              | 1/2             | 120/1       | R-410A               | 80            | 67    | 31,000          | 36,000                   | 60                  | 2             | 60,000      | 75,000   | (1)(2)(3)(4) |
| AHU-3 | 1300         | 150 | 0.7              | 1/2             | 120/1       | R-410A               | 80            | 67    | 34,000          | 42,000                   | 60                  | 2             | 60,000      | 75,000   | (1)(2)(3)(4) |
| AHU-4 | 1100         | 150 | 0.7              | 1/2             | 120/1       | R-410A               | 80            | 67    | 31,000          | 36,000                   | 60                  | 2             | 60,000      | 75,000   | (1)(2)(3)(4) |

(1) AIR HANDLING UNIT SHALL BE DIRECT VENT EQUAL TO TRANE TDH OR AN APPROVED EQUAL.

(2) SIZE REFRIGERANT PIPE PER MANUFACTURER'S RECOMMENDATIONS. REFRIGERANT PIPING SHALL BE TYPE ACR DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS. REFRIGERANT PIPING TO HAVE 3/8" ARMAFLEX INSULATION. PROVIDE VALVES AND SPECIALTIES IN ACCORDANCE WITH EQUIPMENT MFR.'S RECOMMENDATIONS.

(3) PROVIDE PROGRAMMABLE THERMOSTAT, GAS HEAT, SINGLE POINT ELECTRICAL CONNECTION, AUXILIARY DRAIN PAN UNDER ENTIRE UNIT WITH FLOAT SWITCH, & 1" PLEATED FILTER.

(4) ELECTRICAL CONTRACTOR TO PROVIDE AND WIRE SUPPLY AND RETURN DUCT SMOKE DETECTORS. MECHANICAL CONTRACTOR TO MOUNT DETECTORS.

**CONDENSING UNIT SCHEDULE**

| MARK | GENERAL DATA |                 |          | COOLING DATA      |                           | ELECTRICAL DATA |               | COMMENTS  |
|------|--------------|-----------------|----------|-------------------|---------------------------|-----------------|---------------|-----------|
|      | SERVES       | NOMINAL TONNAGE | MIN SEER | AMBIENT AIR (° F) | COOLING CAPACITY (BTU/HR) | MCA             | VOLTAGE/PHASE |           |
| CU-1 | AHU-1        | 5               | 13       | 105               | 60,000                    | 35              | 208/1         | (1)(2)(3) |
| CU-2 | AHU-2        | 3               | 13       | 105               | 36,000                    | 20              | 208/1         | (1)(2)(3) |
| CU-3 | AHU-3        | 3.5             | 13       | 105               | 42,000                    | 26              | 208/1         | (1)(2)(3) |
| CU-4 | AHU-4        | 3               | 13       | 105               | 36,000                    | 20              | 208/1         | (1)(2)(3) |

(1) CONDENSING UNIT SHALL BE EQUAL TO TRANE MODEL 4TT OR AN APPROVED EQUAL.

(2) ANCHOR UNIT TO 4" THICK POURED IN PLACE CONCRETE PAD.

(3) SIZE REFRIGERANT PIPE PER MANUFACTURER'S RECOMMENDATIONS.

**EXHAUST FAN SCHEDULE**

| MARK          | GENERAL DATA |                 |                |           | FAN WHEEL |        | ELECTRICAL DATA |             | COMMENTS |                           |
|---------------|--------------|-----------------|----------------|-----------|-----------|--------|-----------------|-------------|----------|---------------------------|
|               | CFM          | MAX SONE RATING | EST ESP IN. WG | DISCHARGE | TYPE      | DRIVE  | FAN SPEED RPM   | MOTOR WATTS |          | VOLTS/PHASE               |
| EF-1, 2, 3, 4 | 85           | 2.0             | 0.25           | WALL      | INLINE    | DIRECT | 950             | 100         | 120/1    | (1) INTERLOCK WITH LIGHTS |

(1) FAN TO BE EQUAL TO GREENHECK MODEL SP-B110 WITH GRILLE KIT, DISCONNECT, BACKDRAFT DAMPER, CONTROL TRANSFORMER, SPEED CONTROLLER, AND HANGING VIBRATION ISOLATION KIT.