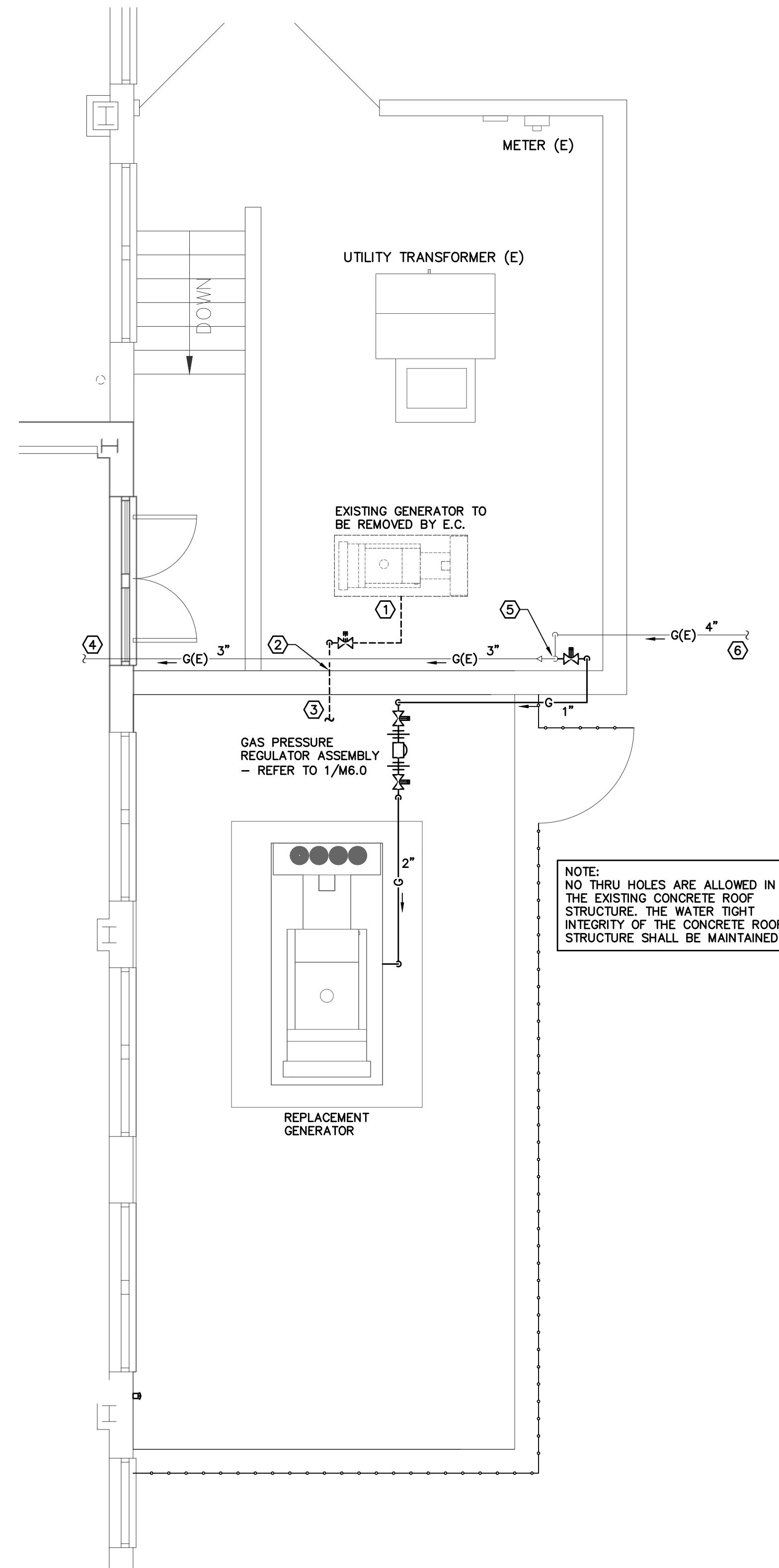


1 PLAN LEVEL 0 ENLARGED FLOOR PLAN
M2.0 SCALE: 1/4" = 1'-0"



2 PLAN LEVEL 1 ENLARGED FLOOR PLAN
M2.0 SCALE: 1/4" = 1'-0"

MECHANICAL GENERAL NOTES

1. ALL NEW AND EXISTING GAS PIPING INSIDE THE BOILER ROOM AND THE COAL ROOM AS WELL AS OUTSIDE THE BUILDING SHALL BE CLEANED, PRIMED AND PAINTED WITH TWO COATS OF SAFETY YELLOW PAINT.
2. ALL NEW AND EXISTING GAS PIPING INSIDE THE BOILER ROOM AND THE COAL ROOM AS WELL AS OUTSIDE THE BUILDING SHALL BE PROVIDED WITH PIPE LABELS INDICATING SERVICE, DIRECTION OF FLOW AND DELIVERY PRESSURE.
3. REMOVAL OF EXISTING GAS PIPING SHALL INCLUDE REMOVAL OF ALL HANGERS AND SUPPORTS.

MECHANICAL KEY NOTES 1/M2.0

- 1 REFER TO 2/M2.0 FOR CONTINUATION OF EXISTING INCOMING GAS PIPING.
- 2 EXISTING GAS PIPING THRU WALL TO EXTERIOR TO BE REMOVED. PATCH WALL PENETRATION WATER TIGHT. REFER TO 2/M2.0 FOR CONTINUATION. REMOVE EXISTING GAS PIPING INCLUDING TWO EXISTING PLUGGED BRANCHES.
- 3 REMOVE EXISTING GAS PIPING AND REGULATOR. PLUG EXISTING VALVE ON THE INLET SIDE OF THE REGULATOR.

MECHANICAL KEY NOTES 2/M2.0

- 1 DISCONNECT EXISTING GAS PIPING FROM EXISTING EMERGENCY GENERATOR.
- 2 EXISTING GAS PIPING THRU WALL INTO COAL ROOM BELOW TO BE REMOVED. PATCH WALL PENETRATION WATER TIGHT.
- 3 REFER TO 1/M2.0 FOR CONTINUATION OF GAS PIPING TO BE REMOVED.
- 4 REFER TO 1/M2.0 FOR CONTINUATION OF EXISTING GAS PIPING.
- 5 CONNECT TO EXISTING 4" GAS PIPING IN VERTICAL.
- 6 EXISTING 4" UNDERGROUND GAS PIPING FROM GAS METER.

GAS LOADS

5 PSIG DELIVERY PRESSURE	
* HWB-1 (WEIL MCLAIN)	5,773,000
* HWB-2 (WEIL MCLAIN)	5,773,000
* GWH-1 (DOMESTIC)	500,000
* GWH-2 (DOMESTIC)	500,000
GAS GENERATOR (NEW)	1,915,000
TOTAL	14,461,000

* BOILER AND WATER HEATER DATA TAKEN FROM EQUIPMENT NAMEPLATES. EXISTING METER SERIAL NUMBER 8060812

NOTE:
NO THRU HOLES ARE ALLOWED IN THE EXISTING CONCRETE ROOF STRUCTURE. THE WATER TIGHT INTEGRITY OF THE CONCRETE ROOF STRUCTURE SHALL BE MAINTAINED.

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PLUMBING • MECHANICAL • ELECTRICAL
A Woman Owned Business est. 1994
Phone: 336.724.0139 • 1111 S. Marshall Street, Suite 250, Winston Salem, NC 27101



DATE: 01/16/2025

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GENERATOR REPLACEMENT
1215 N Cameron Av.
Winston-Salem, North Carolina

DATE: 01/16/2025
CES LICENSE NO. F-0238

SHEET TITLE	
MECHANICAL FLOOR PLAN AND SCHEDULES	
DRAWN BY	PROJECT NO.
BCB	44108
APPROVED BY	REVISION
CRS	
	REVISION
	REVISION

SHEET NUMBER
M2.0

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MECHANICAL SPECIFICATIONS

1. **GENERAL REQUIREMENTS:** THE MECHANICAL CONTRACTOR SHALL BE A SUB-CONTRACTOR TO THE ELECTRICAL MECHANICAL CONTRACT SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, FEES, AND PERMITS REQUIRED FOR AND REASONABLY INCIDENTAL TO THE EXECUTION OF THE MECHANICAL WORK.

THE WORD "PROVIDE" AS USED ON THESE DRAWINGS AND IN THESE SPECIFICATIONS SHALL MEAN TO FURNISH AND INSTALL. THE WORD "CONTRACTOR" AS USED ON THESE DRAWINGS AND IN THESE SPECIFICATIONS SHALL MEAN THE MECHANICAL CONTRACTOR. THE WORD ENGINEER AS USED ON THESE DRAWINGS AND IN THESE SPECIFICATIONS SHALL MEAN CONSULTANT ENGINEERING SERVICE, INC.

2. **MEASUREMENTS:** BEFORE ORDERING ANY MATERIAL OR DOING ANY WORK, CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AT THE SITE AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF SAME. NO EXTRA CHARGE FOR COMPLETION WILL BE ALLOWED ON ACCOUNT OF DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND THE MEASUREMENTS INDICATED ON THE DRAWINGS. ANY DIFFERENCE WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE ENGINEER, FOR CONSIDERATION BEFORE PROCEEDING WITH THE WORK.

3. **CONFORMANCE TO SPECIFICATIONS AND SUBMITTAL OF MATERIALS:** THE DRAWINGS ARE BASED ON THE FIRST MANUFACTURE LISTED IN THE SCHEDULE AND/OR SPECIFICATIONS. CONTRACTOR SHALL BEAR ANY COSTS FOR ALTERATIONS REQUIRED TO ANY OTHER CONTRACT OR SUB-CONTRACT RESULTING FROM A SUBSTITUTION OF MATERIAL AND/OR EQUIPMENT FOR THAT SPECIFIED OR ON WHICH THE DRAWINGS AND/OR SPECIFICATIONS ARE BASED.

4. **REGULATIONS AND CODES:** ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH NORTH CAROLINA STATE BUILDING CODE MECHANICAL, PLUMBING, ENERGY, FUEL GAS AND BUILDING CODES. ALL ELECTRICAL WORK SHALL COMPLY WITH THE NEC NATIONAL ELECTRIC CODE.

5. **EXAMINATION OF SITE:** BEFORE SUBMITTING A PROPOSAL, THE CONTRACTOR SHALL EXAMINE THE SITE, FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS AND OBTAIN SUCH INFORMATION AS IS REQUIRED TO ENABLE HIM TO CARRY OUT INSTALLATION. THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT WILL NOT RELIEVE HIM OF THE RESPONSIBILITY OF ANY ERRORS WHICH MIGHT HAVE BEEN AVOIDED BY HIS COMPLIANCE.

6. **STANDARDS OF MATERIALS:** ALL MATERIALS USED SHALL BE NEW UNLESS OTHERWISE SHOWN OR CALLED FOR, AND SHALL BE FURNISHED IN ACCORDANCE WITH STANDARD SPECIFICATION OF THE AMERICAN SOCIETY FOR TESTING MATERIALS, THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS, THE AMERICAN CONCRETE INSTITUTE, AND OTHER GUIDE SPECIFICATIONS.

7. **APPROVAL:** WHEREVER THE WORDS "OR EQUAL" OR "APPROVED" OR "APPROVAL" ARE USED, THEY SHALL MEAN "OR EQUAL APPROVED BY THE ARCHITECTS AND ENGINEERS" OR "APPROVED BY THE ARCHITECTS AND ENGINEERS" OR "APPROVAL OF THE ARCHITECTS AND ENGINEERS". ALL MAJOR EQUIPMENT AND MATERIAL MUST BE PRE-APPROVED DURING THE BID PROCESS. ALL ITEMS MUST BE SUBMITTED AT LEAST TWO (2) WEEKS PRIOR TO BID OPENING SO THAT THEY MAY BE INCLUDED IN AN ADDENDUM. IF ITEMS ARE NOT PUBLISHED IN AN ADDENDUM, THEY WILL NOT BE CONSIDERED DURING THE SUBMITTAL PROCESS. SUBMITTALS MUST BE PROVIDED BY A BONA FIDE BIDDER, NOT A VENDOR.

8. **DIAGRAMS AND COORDINATION:** THE DRAWINGS ARE DIAGRAMMATIC AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. THE DRAWINGS INDICATE OFFSETS REQUIRED, BUT BY NO MEANS INDICATE ALL SUCH SITUATIONS. DO NOT SCALE THESE DRAWINGS.

9. **COORDINATION DRAWINGS:** CONTRACTOR SHALL OBTAIN ACTUAL STEEL LAYOUT FROM GENERAL CONTRACTOR AND USE THIS INFORMATION TO PROVIDE MINIMUM 1/4"=1'-0" COORDINATION DRAWINGS PRIOR TO BEGINNING WORK.

10. **SHOP DRAWINGS:** SHOP DRAWINGS OF ALL EQUIPMENT, MATERIALS, OR FABRICATED WORK SHALL BE SUBMITTED FOR APPROVAL IN PDF FORMAT. NO WORK SHALL BE DONE UNTIL SUCH APPROVAL HAS BEEN OBTAINED. THE APPROVAL OF SHOP DRAWINGS WILL BE GENERAL AND SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR ANY ERROR WHICH MAY EXIST. MANY EXISTING ITEMS WILL REQUIRE FIELD MEASUREMENT PRIOR TO RELEASE OF ORDER FOR NE PRODUCTS. ENGINEER WILL NOT BE RESPONSIBLE FOR DIMENSIONS.

11. **PROTECTION OF EQUIPMENT:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK DAMAGED BY HIM IN EXECUTING CONTRACT. ALL WORK DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY HIM AND PLACED IN ORIGINAL WORKING CONDITIONS WITHOUT EXTRA COST. ANY CONSTRUCTION WORK DAMAGED SHALL BE MADE ACCEPTABLE TO ENGINEERS AND OWNERS. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR ANY DAMAGED EQUIPMENT OR WORK IN CONJUNCTION WITH EXECUTING CONTRACT. ALL EQUIPMENT THAT WAS WORKING PRIOR TO CONSTRUCTION SHALL BE MADE OPERABLE BY THE CONTRACTOR UNLESS THE ENGINEER IS NOTIFIED IN WRITING PRIOR TO THE START OF CONSTRUCTION.

12. **PROTECTION OF PEOPLE:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE G.C. AND/OR PROVIDING TEMPORARY FENCING, INSTALLING WARNING TAPE, INSTALLING BARRICADES, FLAG PERSONS, ETC. AS REQUIRED TO ENSURE THE SAFETY OF THE VISITORS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR IDENTIFYING AND INSTALLING ALL NECESSARY SAFETY MEASURES.

13. **CLEANING UP:** THE CONTRACTOR SHALL KEEP THE PREMISES AND POINTS AT THE BUILDING FREE OF RUBBISH AND WASTE MATERIAL DUE TO THE INSTALLATION OF WORK INCLUDED IN THIS SPECIFICATION AND SHOWN ON THE PLANS. AFTER COMPLETION OF THE WORK AND ALL TESTS HAVE BEEN MADE, THE CONTRACTOR SHALL REMOVE ALL RUBBISH INCIDENTAL TO CONTRACT AND SHALL LEAVE ALL PORTIONS OF THE WORK IN A CLEAN CONDITION.

14. **INSPECTIONS:** THE CONTRACTOR MUST AT ALL TIMES LEND ANY ASSISTANCE NECESSARY FOR ENGINEERS OR THEIR AUTHORIZED REPRESENTATIVE TO MAKE TESTS, INSPECTIONS, ETC.

15. **WORKMANSHIP:** ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED AND COMPLETED IN A FIRST CLASS WORKMANLIKE MANNER. THE ENGINEERS RESERVE THE RIGHT TO REJECT ANY DAMAGED EQUIPMENT, AND TO DIRECT THE REMOVAL AND REPLACEMENT OF ANY ITEM WHICH IN THEIR OPINION SHALL NOT REPRESENT ACCEPTABLE WORKMANSHIP. SUCH REMOVAL AND REPLACEMENT SHALL BE DONE WHEN DIRECTED IN WRITING BY THE ENGINEERS AT THE CONTRACTOR'S EXPENSE AND WITHOUT ADDITIONAL COST TO THE OWNERS.

16. **COORDINATION:** THE MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES PRIOR TO THE INSTALLATION OF ANY OF HIS EQUIPMENT, DUCT, PIPING, CONTROLS, ETC.

17. **OPENINGS, CUTTING AND PATCHING:** VARIOUS OPENINGS, CUTTING AND PATCHING WILL BE REQUIRED FOR THE INSTALLATION OF THE MECHANICAL WORK, AND THE MECHANICAL CONTRACTOR SHALL INCLUDE THIS WORK IN HIS BID. RESTORE AREAS AFFECTED BY SUCH WORK TO MATCH ADJACENT OR SURROUNDING SURFACES.

THE CUTTING OF OPENINGS OR HOLES IN WALLS AND CUTTING OF HOLES IN FLOORS AND CEILINGS SHALL BE DONE IN A MANNER AS NOT TO ENDANGER THE STABILITY OF THE STRUCTURE OR ANY PART THEREOF, AND ANY SUCH WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS.

ALL NEW HANGERS IN THE MECHANICAL ROOM SHALL BE ATTACHED TO THE BUILDING STRUCTURE. ATTACHING TO THE CEILING SHALL NOT BE ALLOWED. CEILING CUT TO ATTACH HANGER SHALL BE REPAIRED BY THE MECHANICAL CONTRACTOR.

18. **TESTS:** UPON COMPLETION OF THE INSTALLATION OF THE VARIOUS PARTS OR SECTIONS OF THESE SPECIFICATIONS, ALL SYSTEMS SHALL BE PROPERLY ADJUSTED AND TESTED BY THE CONTRACTOR AND PLACED IN PERFECT OPERATING CONDITION, SUBJECT TO THE APPROVAL OF THE ARCHITECTS AND ENGINEERS. PROVIDE ALL LABOR AND EQUIPMENT TO PERFORM THIS WORK. ALL INSULATED SYSTEMS SHALL BE TESTED PRIOR TO INSULATION SYSTEMS BEING INSTALLED.

GAS PIPING SYSTEMS: UPON COMPLETION OF THE SECTION OF OR THE ENTIRE SYSTEM, THE SYSTEM, OR PORTION COMPLETED, SHALL BE TESTED AND PROVED TIGHT UNDER AIR PRESSURE. TEST PRESSURE SHALL BE MEASURED WITH A PRESSURE-MEASURING DEVICE DESIGNED AND CALIBRATED TO READ, RECORD OR INDICATE PRESSURE LOSS CAUSED BY LEAKAGE DURING THE TEST PERIOD. THE SOURCE OF PRESSURE SHALL BE ISOLATED BEFORE THE PRESSURE TESTS ARE MADE. MECHANICAL GAUGES USED TO MEASURE TEST PRESSURE SHALL HAVE A RANGE SUCH THAT THE HIGHEST END OF THE SCALE IS NOT GREATER THAN FIVE TIMES THE TEST PRESSURE. THE TEST PRESSURE SHALL BE NO LESS THAN 2 TIMES THE PROPOSED MAXIMUM WORKING PRESSURE, BUT IN NO CASE LESS THAN 5 PSIG, IRRESPECTIVE OF DESIGN PRESSURE. THE TEST DURATION SHALL BE NOT LESS THAN 1/2 HOUR FOR EACH 500 CUBIC FEET OF PIPE VOLUME OR FRACTION THEREOF. ANY DEFECTS MADE EVIDENT BY THE TEST SHALL BE CORRECTED IMMEDIATELY BY THE CONTRACTOR WITHOUT COST TO THE OWNERS.

MECHANICAL SPECIFICATIONS CONTINUED

19. **GUARANTEE:** CONTRACTOR SHALL GUARANTEE ALL MATERIAL, EQUIPMENT AND WORKMANSHIP FOR A PERIOD OF 12 MONTHS AFTER DATE OF FINAL ACCEPTANCE BY ENGINEERS AND OWNERS. AIR CONDITIONING COMPRESSORS SHALL HAVE FULL EXTENDED 5-YEAR TOTAL WARRANTY, BOTH PARTS AND LABOR. ALL GUARANTEE FAILURE SHALL BE CORRECTED OR REPLACED BY CONTRACTOR AS SOON AS POSSIBLE AFTER NOTIFICATION OF SUCH FAILURE.

20. **LABELING AND IDENTIFYING:** ALL EQUIPMENT AND PIPING INSTALLED UNDER THIS CONTRACT AND OTHERWISE NOTED TO BE SHALL BE LABELED AND IDENTIFIED. PIPING LABELS SHALL BE INSTALLED AT MAXIMUM 25' SPACING. REDUCE SPACING IN CONGESTED MECHANICAL ROOMS. IN SMALL SPACES A MINIMUM OF ONE LABEL PER PIPE SHALL BE PROVIDED.

ALL CONCEALED PIPING SHALL BE LABELED WITH FACTORY MADE STENCILS INCLUDING DIRECTION OF FLOW ARROWS ON LABELS. PAINT COLOR SHALL BE AN EASILY READ CONTRASTING COLOR.

ALL EXPOSED BARE PIPING AND EXPOSED INSULATED AND JACKETED PIPING SHALL BE LABELED WITH PREFAB COILED PLASTIC LABELS SECURED WITH A SELF ADHESIVE STRIP FOR 5" AND SMALLER PIPING INCLUDING DIRECTION OF FLOW ARROWS ON LABELS. ALL EXPOSED JACKETED PIPING SHALL BE LABELED WITH PREFAB COILED PLASTIC LABELS SECURED WITH STAINLESS STEEL SPRINGS 5" AND LARGER PIPING INCLUDING DIRECTION OF FLOW ARROWS ON LABELS.

ALL EQUIPMENT SHALL BE LABELED WITH ENGRAVED PLASTIC LAMINATE SIGN OR EQUIPMENT MARKER ON OR NEAR EACH MAJOR ITEM OF MECHANICAL EQUIPMENT AND ITS DISCONNECT SWITCH, COMBINATION STARTER DISCONNECT, OR VARIABLE SPEED DRIVE. LETTERING SHALL BE 1/2" HIGH, BLACK LETTERS ON WHITE LAMINATE - PERMANENTLY ATTACH.

21. **PIPING AND FITTINGS:** EXTEND SYSTEMS OF NATURAL GAS PIPING AS INDICATED ON PLANS AND AS DETAILED ON DIAGRAMS. SUSPENDED PIPING SHALL BE RUN HIGH AS POSSIBLE AND SHALL OFFSET WHERE NECESSARY TO AVOID OTHER TRADES. SHEET METAL WORK SHALL TAKE PRECEDENCE OVER OTHER SYSTEMS WHEN ROUTING PIPING. VIEGA MEGAPRESS FITTING WILL NOT BE ACCEPTABLE.

GENERAL: ALL PIPING SHALL BE INSTALLED IN A NEAT AND ORDERLY MANNER PARALLEL OR PERPENDICULAR TO BUILDING WALLS, FLOORS OR CEILING UNLESS OTHERWISE SHOWN ON DRAWINGS. WHEN MULTIPLE PIPES ARE ROUTED NEAR EACH OTHER THEY SHALL BE PARALLEL. WHEN THE CASE CALLS FOR PIPE RACKS WITH MULTIPLE LEVEL EACH LEVEL SHALL BE ON A SEPARATE PIPE RACK. LAYING MULTIPLE PIPES LOOSE ON A SINGLE RACK WILL NOT BE ACCEPTABLE.

NATURAL OR PROPANE GAS PIPING: LOW PRESSURE (BELOW 1 PSI): PIPE SIZES 2" AND SMALLER - SCHEDULE 40 BLACK STEEL PIPE CONFORMING TO ASTM A 53 WITH MALLEABLE IRON THREADED FITTINGS CONFORMING TO ASME B 16.3. PIPE SIZES 2-1/2" AND LARGER - SCHEDULE 40 BLACK STEEL PIPE CONFORMING TO ASTM A 53 WITH BUTT WELD FITTINGS CONFORMING TO ASTM A 234.

MEDIUM PRESSURE (FROM 1 PSI TO 5 PSI): PIPE SIZES 2" AND SMALLER OUTSIDE THE BUILDING - SCHEDULE 40 BLACK STEEL PIPE CONFORMING TO ASTM A 53 WITH BLACK MALLEABLE IRON THREADED FITTINGS CONFORMING TO ASME B 16.3. INSIDE THE BUILDING PIPE SIZES 2" AND SMALLER - SCHEDULE 40 BLACK STEEL PIPE CONFORMING TO ASTM A 53 WITH SOCKET WELD FITTINGS CONFORMING TO ASTM A 234. PIPE SIZES 2-1/2" AND LARGER INSIDE AND OUTSIDE THE BUILDING - SCHEDULE 40 BLACK STEEL PIPE CONFORMING TO ASTM A 53 WITH BUTT WELD FITTINGS CONFORMING TO ASTM A 234.

ALL GAS PIPING SHALL BE ELECTRICALLY CONTINUOUS AND BONDED TO AN EFFECTIVE GROUND-Fault CURRENT PATH IN ACCORDANCE WITH SECTION 310.1 OF THE 2018 NC FUEL GAS CODE.

ALL NEW AND EXISTING GAS PIPING SHALL BE PRIMED, PAINTED WITH 2 COATS SAFETY YELLOW PAINT AND SHALL BE LABELED.

PIPING ACCESSORIES: DIELECTRIC UNIONS OR DIELECTRIC FLANGES SHALL BE PROVIDED AT THE CONNECTION OF ALL DISSIMILAR METALS.

BOLT SIZE SHALL BE THE MANUFACTURES RECOMMENDED SIZE FOR THE FLANGES BEING CONNECTED. BOLTS USED FOR FLANGED CONNECTIONS SHALL BE THE SHORTEST LENGTH THAT WILL ALLOW THE BOLT TO PASS COMPLETELY THRU THE NUT ON THE OPPOSITE SIDE. BOLTS NOT PASSING COMPLETELY THRU THE NUTS WILL NOT BE ALLOWED. BOLTS USED FOR LUG BODY BUTTERFLY VALVES SHALL BE THE LONGEST LENGTH POSSIBLE THAT WILL NOT BOTTOM OUT AGAINST EACH OTHER.

22. **HANGERS AND SUPPORTS - PIPING:** CONTRACTOR SHALL PROVIDE HANGERS AND SUPPORTS FOR ALL PIPING AND FIXTURES. HANGERS FOR INSULATED PIPING SHALL BE SIZED TO PASS BOTH PIPE AND INSULATION. HANGERS SHALL BE MANUFACTURED BY B-LINE, MICHIGAN, PHD OR PRIOR APPROVED EQUAL. ALL HANGER SPACING SHALL BE PER THE NORTH CAROLINA MECHANICAL CODE.

PIPING HANGERS:
INSULATED PIPING 3" AND SMALLER:
B-LINE B3170NF GALVANIZED ADJUSTABLE SWIVEL RING WITH INSULATION SHIELD.
INSULATED PIPING 4" AND LARGER:
B-LINE B3100 ADJUSTABLE CLEVIS HANGER WITH INSULATION SHIELD.
BARE COPPER PIPING:
B-LINE B3174CTC, COPPER PLATED WITH PLASTIC COATING.
OTHER BARE PIPING:
B-LINE B3100.
VERTICAL PIPING:
UNISTRUT WITH CLAMPS OR SPLIT RING HANGERS.
PIPING ON ROOF:
MICHIGAN HANGER PIPE PIER WITH CLAMP.

PIPING SHALL BE SUPPORTED FROM THE WOOD FLOOR AND/OR CEILING JOISTS, WOOD RAFTERS, WOOD BEAMS. NO PIPING SHALL BE SUPPORTED DIRECTLY FROM WOOD FLOOR AND/OR ROOF DECKING.

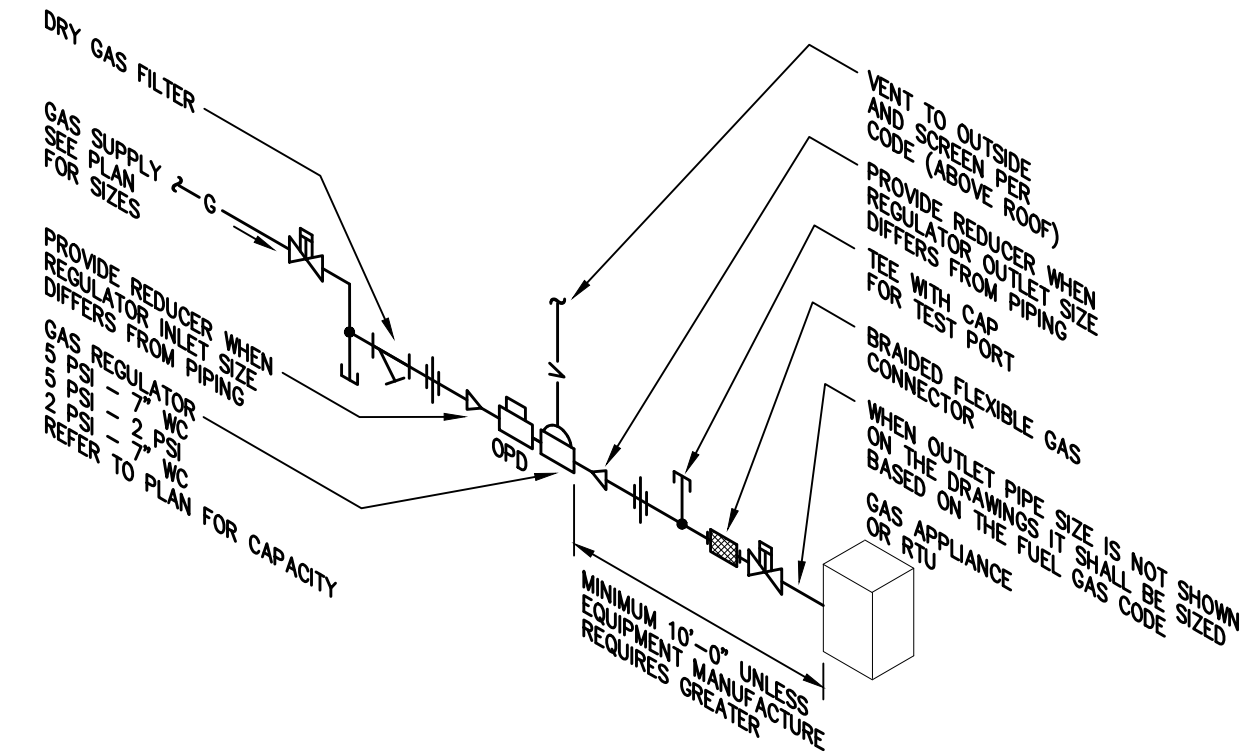
SUPPORTS BETWEEN JOISTS: PROVIDE INTERMEDIATE STEEL ANGLES, CLIPPED AND/OR BOLTED TO WOOD JOISTS, DRILLED FOR RODS. PROVIDE AS NEEDED FOR PIPING, DUCT AND/OR EQUIPMENT.

23. **BLOWING OUT, CLEANING AND TESTING SYSTEMS:** ALL PIPING AND EQUIPMENT SHALL BE BLOWN OUT UNDER PRESSURE AND CLEANED OF FOREIGN MATTER BEFORE THE SYSTEM IS PUT INTO OPERATION. MECHANICAL EQUIPMENT SHALL NOT BE CONNECTED TO PIPING UNTIL IT HAS BEEN BLOWN OUT AND CLEANED.

AFTER THOROUGHLY CLEANING AND ADJUSTING THE SYSTEM, ALL CONNECTIONS SHALL BE MADE AND ALL PIPING, EQUIPMENT, AND APPARATUS SHALL BE TESTED AND MADE TIGHT UNDER PRESSURE AND WORKING CONDITIONS AS DIRECTED.

WHEN THE SYSTEMS ARE COMPLETE, THE CONTRACTOR SHALL PLACE THEM IN OPERATION IN THE PRESENCE OF THE OWNERS OR THEIR REPRESENTATIVES AND SHALL THOROUGHLY ACQUAINT THEM WITH THE PROPER OPERATION OF THE EQUIPMENT.

TEST, SET AND ADJUST ALL CONTROL EQUIPMENT HEREIN SPECIFIED OR AS DIRECTED.



- NOTES:
1. PAINT ALL NEW AND EXISTING GAS PIPING SAFETY YELLOW.
 2. LABEL ALL PIPING SHOWING PRESSURE AND DIRECTION OF FLOW.
 3. LOCATE OVER PRESSURE PROTECTION DEVICE AND REGULATOR ASSEMBLY IN AN EASILY ACCESSIBLE LOCATION.
 4. PLUMBING CONTRACTOR SHALL PROVIDE GAS REGULATOR (PROPANE OR NATURAL GAS) FOR EACH PIECE OF EQUIPMENT (PLUMBING, MECHANICAL, KITCHEN) FIELD VERIFY INLET PRESSURE, OUTLET PRESSURES, CAPACITY AND FUEL.
- NOTES CONTINUED:
5. GAS PRESSURE REGULATORS SHALL COMPLY WITH ANSI Z21.80 AND SHALL INCLUDE TESTED AND APPROVED OPD (OVER PRESSURE PROTECTION DEVICE).
 6. VENT LIMITING DEVICES MAY BE USED IN LIEU OF A VENT PIPED TO THE EXTERIOR OF THE BUILDING.
 7. VENT LIMITING DEVICES ARE NOT ALLOWED ON GAS PRESSURE REGULATORS LOCATED OUTDOORS. PROVIDE VENT PROTECTOR CAPS FOR REGULATOR VENT.
 8. COORDINATE ROUTING OF GAS PIPING TO NOT OBSTRUCT ACCESS TO EQUIPMENT.
 9. MECHANICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO EQUIPMENT.

1
M6.0
DETAIL - GAS APPLIANCE
SCALE: N.T.S.

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Phone: 336.724.0139 • 1111 S. Marshall Street, Suite 250, Winston Salem, NC 27101

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PETER R. STOUT

01/16/2025

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1215 N Cameron Av.
Winston-Salem, North Carolina

DATE
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SHEET TITLE MECHANICAL DETAILS AND SPECIFICATIONS	PROJECT NO. 4410B
DRAWN BY EBC	REVISION
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REVISION	REVISION

SHEET NUMBER
M6.0

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