

PLUMBING SPECIFICATIONS

- GENERAL NOTES:
- THE WORK INCLUDES PROVIDING THE INDICATED SYSTEMS AND PROVIDING NEW MATERIALS, FITTINGS AND ACCESSORIES NECESSARY FOR COMPLETE FUNCTIONING SYSTEMS. THE WORK ALSO INCLUDES FINAL CONNECTIONS TO ALL EQUIPMENT PROVIDED BY THE CONTRACTOR AS WELL AS ALL PIPING AND FITTINGS TO BE INSTALLED. ALL PIPING SHALL BE IN ACCORDANCE WITH LOCAL CODES AND/OR ORDINANCES AND IS SUBJECT TO INSPECTION.
 - THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL EXTENT OF WORK REQUIRED FOR THE PROJECT. THE DRAWINGS ARE DIAGNOSTIC SHOWING THE GENERAL LOCATION, TYPE, FITURES AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. REFER TO MANUFACTURERS STANDARD ROUGH-IN DRAWINGS FOR EXACT CONNECTION LOCATIONS.
 - COORDINATE WITH THE WORK OF OTHER TRADES AND WITH EQUIPMENT FURNISHED BY OTHERS.
- PIPING SYSTEMS - GENERAL:
- ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES, SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES. INSTALL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS AND TO PROTECT FROM DAMAGE. PROVIDE PROPER SLOPE TO FACILITATE DRAINAGE. PROVIDE AN ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING. PROVIDE AN ISOLATING DIELECTRIC UNION. ALL HANGERS SHALL BE COMPATIBLE WITH PIPING MATERIAL TO PREVENT CORROSION.
 - PROVIDE ALL FITTINGS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE PLUMBING SYSTEM'S PROPER OPERATION AS DICTATED BY THE DESIGN AND THE EQUIPMENT INDICATED.
- FIXTURE TRIM:
- PROVIDE ALL FITTINGS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE PLUMBING SYSTEM'S PROPER OPERATION AS DICTATED BY THE DESIGN AND THE EQUIPMENT INDICATED.
- WASTE PIPING AND FITTINGS:
- SANITARY DRAINAGE PIPING ABOVE FLOOR SHALL BE PVC SCHEDULE 40 WITH PRIMED AND SOLVENT JOINTS. ALL DRAINAGE PIPING UP TO 4" SHALL BE SLOPED UNIFORMLY AT 1/4" PER FOOT. ALL PIPING 4" AND LARGER SHALL BE SLOPED AT 1/8" PER FOOT.
- VENT PIPING AND FITTINGS ABOVE GARAGE:
- PROVIDE COMPLETE SYSTEM OF PVC SCHEDULE 40.
- CONDENSATE AND INDIRECT DRAIN PIPING:
- TYPE "M" COPPER TUBING UP TO 1" ID. TYPE DWV TUBINGS AND FITTINGS FOR 1-1/4" & LARGER SIZES.

WATER DISTRIBUTION PIPING:

- DO NOT WATER PIPING. PROVIDE THAT THE ENTIRE SYSTEM CAN BE BRANDED, HOT AND COLD WATER PIPING SHALL BE TYPE "M" COPPER TUBING WITH SMOOTH COPPER FITTINGS AND SWEAT CONNECTIONS FOR ALL ABOVE FLOOR PIPING. INSTALL CHROME PLATED BRASS ESCUTCHEON PLATES AT ALL PENETRATIONS THROUGH FINISHED SURFACES (INCLUDING CABINET INTERIORS). USE A WS BCUP-5 FILTER MATERIAL FOR ALL SWEAT FITTINGS OF COPPER PIPING. SHUTOFF VALVES WITH UNIONS SHALL BE PROVIDED FOR SERVICE TO EACH PLUMBING FITTURE OR OTHER EQUIPMENT ITEM TO FACILITATE ISOLATION FOR REPAIR OR REPLACEMENT.
- SUPPLIES AND TRAPS.
- PROVIDE WATER SEALED TRAPS AND/OR SUPPLIES INSTALLED AS CLOSE AS POSSIBLE TO ALL PLUMBING FITTURES, DRAINS AND EQUIPMENT FURNISHED BY OTHERS. HAVING A WASTE CONNECTION, OR REQUIRING WATER SERVICE. EXPOSED TRAPS AND SUPPLIES IN EXPOSED AREAS (INCLUDING CABINET INTERIORS) SHALL BE CHROMIUM PLATED BRASS, WITH ONE-PIECE CHROME PLATED ESCUTCHEON PLATES.

INSTALLATION:

- THOROUGHLY CLEAN ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO EXCLUDE DIRT UNTIL FITTURES ARE INSTALLED AND FINAL CONNECTIONS HAVE BEEN MADE. PROCEED AS RAPIDLY AS CONSTRUCTION WILL PERMIT. SET FITTURES LEVEL AND IN PROPER ALIGNMENT. INSTALL SUPPLIES IN PROPER ALIGNMENT WITH FITTURES. INSTALL SILICONE SEALANT BETWEEN FITTURES AND ADJACENT WALLS.
- TEST WATER SYSTEM UNDER 125 PSIG HYDROSTATIC PRESSURE. FOR FOUR(4) HOURS MINIMUM WITH MAXIMUM ALLOWABLE PRESSURE VARIANCE OF 1/2 PSIG. WHEN TESTING INDICATES MATERIALS OR WORKMANSHIP IS DEFICIENT, REPLACE OR REPAIR AS REQUIRED, AND REPEAT TEST UNTIL STANDARDS ARE ACHIEVED. SANITARY SEWER TO BE TESTED AT 5 PSIG HYDROSTATIC PRESSURE FOR ONE(1) HOUR WITH MAXIMUM ALLOWABLE PRESSURE VARIANCE OF 1/2 PSIG.
- INSPECT CLEAN AND UNOBTAINING. DO NOT WATER PIPING. DISINFECT DOMESTIC WATER PIPING BY FLUSHING WITH CLEAN WATER. DISINFECTION TO BE PERFORMED BY POURING DISINFECTANT INTO UNTIL WATER RUNS CLEAR WHILE OPENING AND CLOSING ALL VALVES SEPARATELY. SUBMIT WATER SAMPLE TO TESTING LABORATORY. REPEAT DISINFECTION OF WATER SYSTEM UNTIL LAB RESULTS ARE ACCEPTABLE.

CLEANOUTS:

- PROVIDE CLEANOUTS AT THE END OF EACH HORIZONTAL RUN, AND AT THE BASE OF ALL VERTICAL WASTE AND DRAIN PIPES OR AT POINTS AS REQUIRED BY LOCAL CODES. CLEANOUTS SHALL BE OF THE SAME SIZE AS THE PIPES THEY SERVE. PROVIDE WALL AND FLOOR CLEANOUTS WITH ACCESSORIES TO OBSERVE FROM VIEW.

PLUMBING MATERIALS

WATER DISTRIBUTION SYSTEM

PIPE: TYPE "L" COPPER (ASTM B88)

FITTINGS - WROUGHT COPPER (ASME B16.22)

JOINTS - 75-5 TIN ANTIMONY (ASTM B21)

VALVES: BALL VALVE - BRONZE STANDARD PORT, 2" PIECE, SOLDER BUDS, 400 WOG, STOP AND DRAIN VALVE - BRONZE STANDARD PORT, BALL VALVE WITH DRAIN CAP, SOLDER BUD, 400 WOG.

HANGERS: INSULATION - INSULATION HANGER WITH SUPPORT SHIELD, BARE TUBING - COPPER-ELECTROPLATED CARBON STEEL (ASTM A151).

SOIL WASTE AND VENTING SYSTEMS

PIPE AND FITTINGS - PVC SCHEDULE 40 PRIMED AND SOLVENT WELDED

JOINTS - STAINLESS CLAMP WITH NEOPRENE GASKET.

HANGERS - STANDARD CEVIS, HEAVY DUTY.

INSULATION - WATER DISTRIBUTION SYSTEM

TYPE:

FERROUS PIPE COVERING WITH RFK ALL SERVICE JACKET AND SELF-SEALAP WITH NONCOMBUSTIBLE MATERIALS MEETING ALL LOCAL JURISDICTION CODES AND ORDINANCES. FIRE AND SMOKE HAZARD RATINGS SHALL BE AS TESTED IN CONFORMANCE WITH ASTM E84, NATIONAL FIRE PROTECTION AGENCY 255 AND UL 723. NOT EXCEEDING FLAME SPREAD RATINGS OF 25 AND A SMOKE DEVELOPED RATING OF 50. NO STRAPLES ARE ALLOWED TO BE THROUGH VAPOR BARRIER.

VALVES:

OVERSIZED PIPE COVERING OF SAME MATERIAL AND THICKNESS AS ADJACENT PIPE COVERING. FINISH WITH PVC JACKET.

COLD WATER:

ALL HORIZONTAL AND VERTICAL MAINS AND BRANCH PIPING EXCEPT SUPPLY SUB-OUTS, 1/2" THRU 4" = 1/2" THICK INSULATION.

HOT WATER:

ALL HORIZONTAL AND VERTICAL MAINS AND BRANCH PIPING EXCEPT SUPPLY SUB-OUTS, 1/2" THRU 1" = 1" THICK INSULATION.

ACCEPTABLE MANUFACTURERS

DRAINS CLEANOUTS: JOSAM, J.R. SMITH, WADE, ZURN.

PLUMBING MATERIALS (CONT.)

NATURAL GAS PIPING SYSTEM

PIPE: BLACK STEEL SCH. 40 (ASTM A53).

FITTINGS - THERMAD MALLEABLE IRON (ASTM B 6.31).

JOINTS - THERMAD UNIONS, MALLEABLE IRON (NFA 54).

VALVES: BALL SHUT-OFF VALVE - BRONZE STANDARD PORT, 2" PIECE, SOLDER BUDS, 400 WOG.

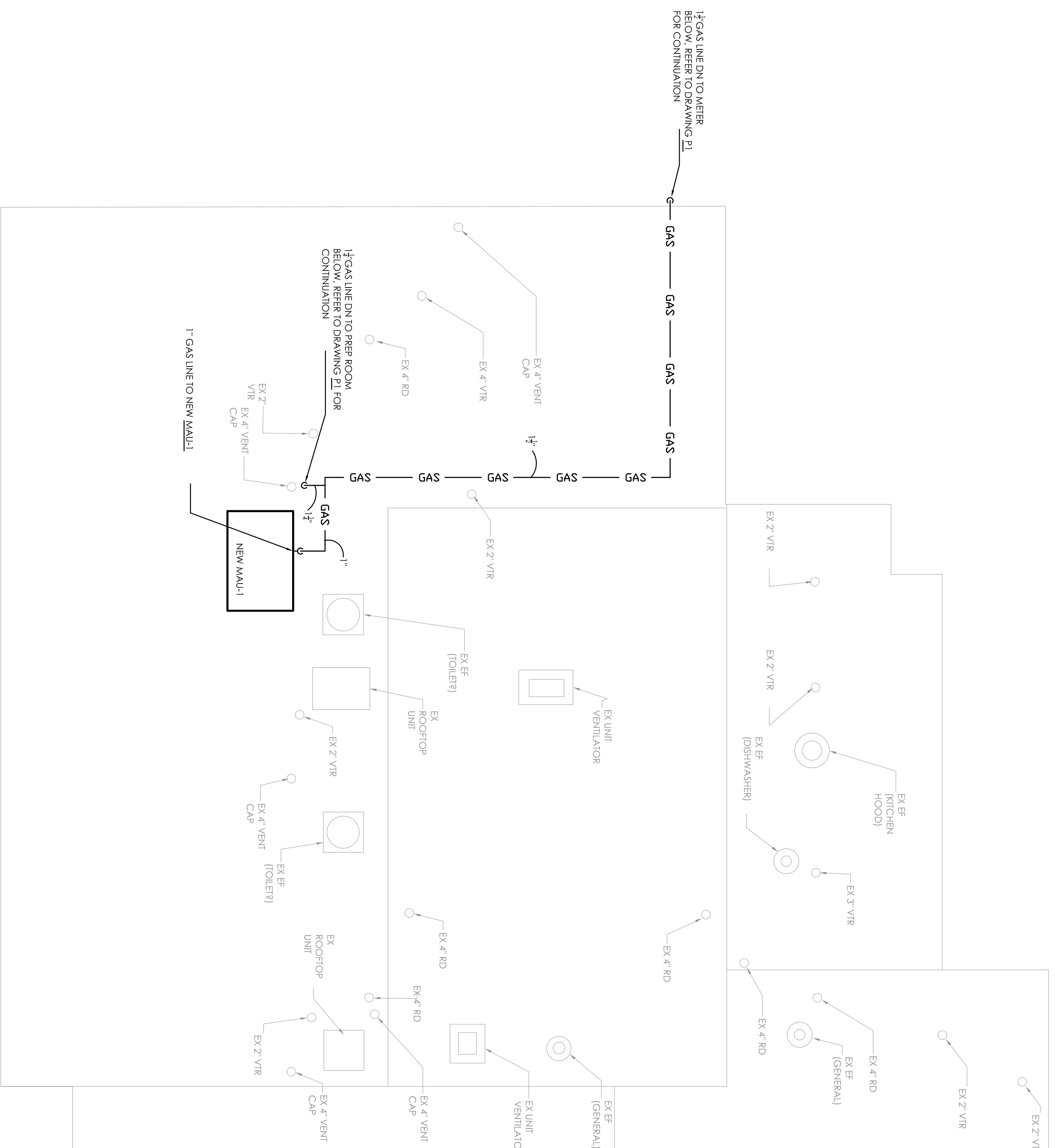
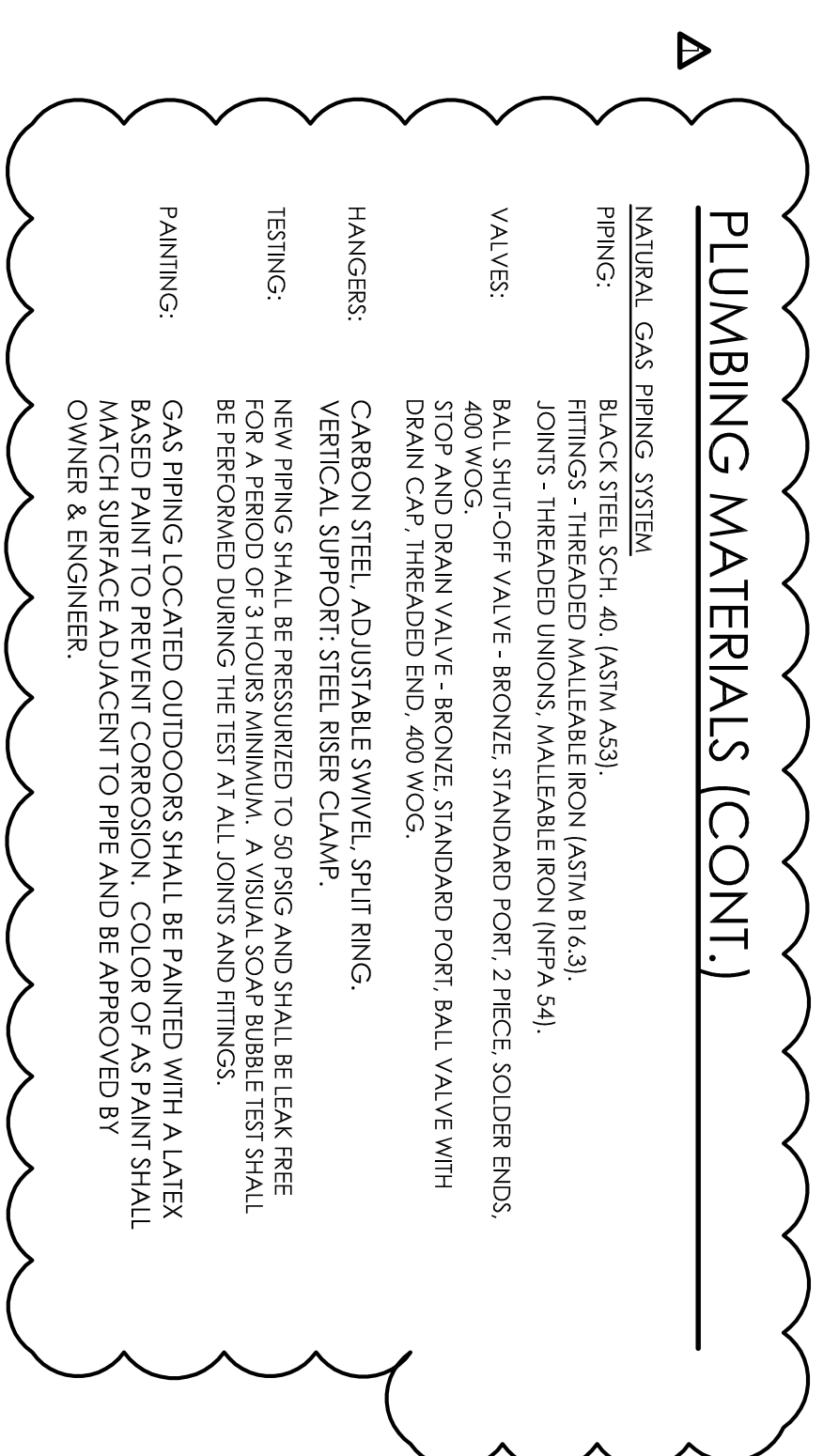
STOP AND DRAIN VALVE - BRONZE STANDARD PORT, BALL VALVE WITH DRAIN CAP, THERMAD END, 400 WOG.

HANGERS: CARBON STEEL, ADJUSTABLE SWIVEL, SPLIT RING.

VERTICAL SUPPORT: STEEL RISER CLAMP.

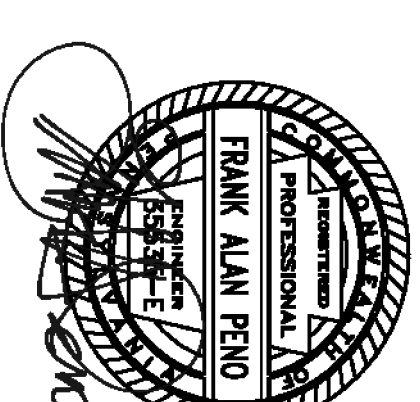
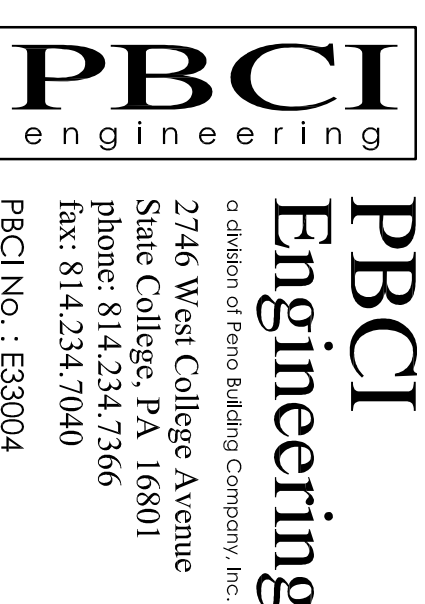
TESTING: NEW PIPING SHALL BE PRESSURIZED TO 50 PSIG AND SHALL BE LEAK FREE FOR A PERIOD OF ONE HOUR. SOUP RIBBLE TEST SHALL BE PERFORMED DURING THE TEST AT ALL JOINTS AND FITTINGS.

PAINTING: GAS PIPING LOCATED OUTDOORS SHALL BE PAINTED WITH A LATEX BASED PAINT TO PREVENT CORROSION. COLOR OF AS PAINT SHALL MATCH SURFACE ADJACENT TO PIPE AND BE APPROVED BY OWNER & ENGINEER.



1 GAS PIPING ROOF PLAN

P2 SCALE: 1/8" = 1'-0"



PROGRESS DATES

DESIGN REVIEW SET	02/18/13
CODE & BIDDING SET	02/25/13
▲ CODE RESUBMISSION	05/21/13

**ST. JOSEPH'S
CATHOLIC
ACADEMY**

901 Boalsburg Pike
Boalsburg, PA 16827

**SCIENCE LAB
RENOVATIONS**

**GAS PIPING
ROOF PLAN &
SPECIFICATIONS**

P2