

ABBREVIATIONS			
AAV	AIR ADMITTANCE VALVE	HWR	HOT WATER RETURN
AC	ABOVE CEILING	IMB	ICE MACHINE BOX
AF	ABOVE FLOOR	IE	INVERT ELEVATION
AF, AFG	ABOVE FINISHED FLOOR/GRADE	L, LAV	LAVATORY
BF	BELOW FLOOR	MBH	1000 BTU/HR
BFP	BACKFLOW PREVENTER	MS	MOP SINK
BVG	BELOW GRADE	MV	MIXING VALVE
CD	CONDENSATE DRAIN	OH	OVERHEAD
CONT	CONTINUATION	G	NATURAL GAS
CW	COLD WATER	PRV	PRESSURE REDUCING VALVE
DN	DOWN	RP	RECIRCULATION PUMP
ET	EXPANSION TANK	S, SAN	SANITARY
EWC	ELECTRIC WATER COOLER	SH	SHOWER
ex.	EXISTING	SK	SINK
FCO	FLOOR CLEANOUT	TP	TRAP PRIMER
FD	FLOOR DRAIN	TYP	TYPICAL
FHB	FREEZEPROOF HOSE BIBB	UR	URINAL
FS	FLOOR SINK	V	VENT
FWH	FREEZEPROOF WALL HYDRANT	VTR	VENT THROUGH ROOF
GCO	GRADE CLEANOUT	WC	WATER CLOSET
GI	GREASE INTERCEPTOR	W.C.	WATER COLUMN
HB	HOSE BIBB	WCO	WALL CLEANOUT
HD	HUB DRAIN	WHA	WATER HAMMER ARRESTER
HW	HOT WATER	WMB	WASHING MACHINE BOX

LEGEND	
-----	COLD WATER PIPE
-----	HOT WATER PIPE
-----	HOT WATER RETURN PIPE
-----G-----	NATURAL GAS PIPE
-----S-----	SANITARY PIPE
-----GW-----	GREASE WASTE PIPE
-----	VENT PIPE
○-----○	PIPE UP / PIPE DOWN
↑-----↓	PIPE TEE FROM TOP / TEE FROM BOTTOM
┌-----┐	PIPE CAP / PIPE CONTINUATION
→	DIRECTIONAL FLOW ARROW
○-----○	BALL VALVE / CHECK VALVE
○-----○	MIXING VALVE / PRESSURE REDUCING VALVE
⊠	BACKFLOW PREVENTER ASSEMBLY
⊠	WALL HYDRANT / HOSE
⊠	FLOOR DRAIN / MOP SINK
⊠	WATER HAMMER ARRESTOR
⊠	GAS COIL GAS THERMOID VALVE
⊠	P-TRAP
⊠	HUB DRAIN
⊠	TRAP PRIMER
⊠	FLOOR CLEANOUT / GRADE CLEANOUT
⊠	VENT THROUGH ROOF
⊠	PIPE CLEANOUT / WALL CLEANOUT

SPECIFICATIONS	
GENERAL	ALL WORK SHALL COMPLY WITH ALL STATE, CITY AND LOCAL CODES, RULES AND REGULATIONS. CONTRACTOR SHALL SECURE ALL REQUIRED PERMITS AND INSPECTIONS ASSOCIATED WITH THIS WORK, AND SHALL PAY ALL COSTS AND FEES INVOLVED.
	ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE BEST RECOGNIZED PRACTICE IN THE FIELD CONCERNED. MANUFACTURED ITEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED DIRECTIONS, SPECIFICATIONS AND RECOMMENDATIONS.
	CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS AND SHALL BE FAMILIAR WITH THE SCOPE AND REQUIREMENTS OF THIS PROJECT. ANY DISCREPANCIES OR LACK OF CLARITY IN THE DOCUMENTS SHALL BE IDENTIFIED TO THE ARCHITECT OR ENGINEER PRIOR TO THE SUBMISSION OF PRICING BIDS. WITH A SUBMITTED BID, CONTRACTOR IS ACCEPTING THESE DOCUMENTS AS SUFFICIENT DEFINITION OF THE SCOPE OF WORK, AND ANY ADDITIONAL COSTS BASED ON UNCLARITY OF CONTRACT DOCUMENTS WILL NOT BE CONSIDERED.
	CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS FOR EQUIPMENT INSTALLATION PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS. ALL EQUIPMENT AND DEVICES SHALL BE INSTALLED SUCH THAT THEY ARE EASILY ACCESSIBLE AND SERVICABLE. THIS EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO: PLUMBING FIXTURES, WATER HEATERS, EXPANSION VALVES, PUMPS, BACKFLOW PREVENTERS, VALVES, MIXING VALVES, THERMOMETERS, GAUGES, TRAP PRIMERS AND CLEANOUTS.
	THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE FULL SET OF CONSTRUCTION DOCUMENTS, INCLUDING ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL & ELECTRICAL DRAWINGS (AS APPLICABLE) TO ENSURE ALL PLUMBING WORK IS COORDINATED WITH PHYSICAL CONDITIONS AND ALL OTHER TRADES.
	THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE ARCHITECTURAL DRAWINGS TO ENSURE THERE IS ADEQUATE WALL THICKNESS SUCH THAT ALL PIPING, FIXTURE CARRIERS, WALL CLEANOUTS, WALL BOXES, WALL HYDRANTS AND ACCESS PANELS WILL FIT IN THE WALL SPACE. CONTRACTOR SHALL NOTIFY THE ARCHITECT IF WALL SPACE IS INADEQUATE PRIOR TO COMMENCING WORK.
	THE CONTRACTOR SHALL OBTAIN EXACT WALL, FIXTURE, AND LAYOUT DIMENSIONS FROM THE ARCHITECTURAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ROUGH-IN AND INSTALLATION DRAWINGS FOR ALL PLUMBING FIXTURES, KITCHEN EQUIPMENT AND OWNER FURNISHED EQUIPMENT (AS APPLICABLE), AND SHALL COORDINATE THE PLUMBING INSTALLATION PRIOR TO COMMENCING THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL NECESSARY VALVES, CONNECTIONS, TRAPS, ACCESS PANELS, UNIONS, ESCUTCHEONS, WATER HAMMER ARRESTORS, VACUUM BREAKERS, RELIEF VALVES, PIPE INSULATION, AND EQUIPMENT SPECIALTY DEVICES AS REQUIRED TO FACILITATE COMPLETE AND OPERATIONAL CONDITIONS WHICH ARE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
	THESE DRAWINGS ARE DIAGRAMMATIC AND DO NOT REFLECT ALL POSSIBLE PHYSICAL CONDITIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND EXACT LOCATIONS OF EQUIPMENT AND FIXTURES. PROVIDE NECESSARY PIPING OFFSETS TO COORDINATE WITH THE BUILDING STRUCTURE, WORK OF OTHER TRADES, AND CONNECTION TO SITE UTILITIES (AS APPLICABLE).
	COORDINATE THE ELECTRICAL REQUIREMENTS AND CHARACTERISTICS OF ALL PLUMBING EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ISSUING SUBMITTALS OR PURCHASING EQUIPMENT.
	UNLESS NOTED OTHERWISE, ALL DRAINAGE PIPING SHALL BE SLOPED AT A MINIMUM OF 1/8" PER FOOT. 2" SANITARY PIPING AND ALL GREASE WASTE PIPING SHALL BE SLOPED AT 1/4" PER FOOT.
	DOMESTIC WATER PIPING SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. PIPING TO BE FLUSHED AND STERILIZED IN ACCORDANCE WITH IPC 610.1 AND ALL APPLICABLE LOCAL AND STATE HEALTH DEPARTMENT STANDARDS.
	ALL DOMESTIC WATER PIPING SUBJECT TO FREEZING SHALL BE INSULATED AND PROVIDED WITH HEAT TRACE. CONDENSATE PIPING SUBJECT TO FREEZING WITHIN WALK-IN FREEZERS SHALL BE INSULATED AND PROVIDED WITH HEAT TRACE. PIPING INSTALLED IN EXTERIOR WALLS SHALL BE WRAPPED IN PIPE INSULATION AND BE LOCATED ON THE INTERIOR OF THE BUILDING INSULATION.
	PIPE PENETRATIONS THROUGH FIRE RATED WALLS OR FLOORS SHALL HAVE EQUIVALENTLY RATED SLEEVES AND SHALL BE SEALED AND FIRE CAULKED WITH A U.L. LISTED FIRE STOPPING SYSTEM INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S LISTED DETAILS AND SPECIFICATIONS.
	THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE REQUIREMENTS OF THE LOCAL HEALTH DEPARTMENT AND OTHER LOCAL AUTHORITIES HAVING JURISDICTION REGARDING CROSS CONNECTION CONTROL. OBTAINING A FOOD SERVICE PERMIT (AS APPLICABLE). REPORT ANY OBSERVED DISCREPANCIES TO THE ARCHITECT OR ENGINEER PRIOR TO COMMENCING WITH THE WORK.
	CONTRACTOR SHALL CONFIRM PLUMBING FIXTURE FINISHES WITH THE ARCHITECTURAL SCHEDULES & DETAILS (AS APPLICABLE).
	SUBMITTALS FURNISH SHOP DRAWINGS FOR MANUFACTURED PRODUCTS. ITEMS SHALL BE CLEARLY MARKED TO MATCH EQUIPMENT MARKS ON THE PLUMBING DRAWINGS. ALL DIMENSIONS MUST BE CLEARLY MARKED ON THE SUBMITTAL SHEET. A MODEL NUMBER LISTING ON A COVER SHEET IS NOT AN ACCEPTABLE SUBSTITUTE FOR MARKING THE ACTUAL SUBMITTAL SHEET. ELECTRICAL DATA FOR POWERED EQUIPMENT MUST BE INDICATED ON THE SUBMITTAL SHEET FOR THAT ITEM.
	ALL ITEMS MUST BE SUBMITTED IN ONE PACKAGE AT THE SAME TIME, IN ELECTRONIC PDF FORMAT. SEPARATE SUBMITTALS FOR FIXTURES AND EQUIPMENT IS NOT ACCEPTABLE.
	SUBMITTAL REVIEW IS CONSIDERED A GENERAL ACCEPTANCE OF THE BASIC APPLICABILITY OF THE EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND/OR ALTERNATE ARRANGEMENT OF THE EQUIPMENT WITHIN A GIVEN SPACE. WHEN SUBSTITUTE EQUIPMENT IS INSTALLED, CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION OR ADDITIONAL COST BROUGHT ON BY THE USE OF THIS EQUIPMENT.
	HANGERS AND SUPPORTS HANGERS SHALL BE COMPLETED WITH RODS AND SUPPORTS PROPORTIONED TO THE SIZE OF PIPE TO BE SUPPORTED, IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
	SIZE HANGERS FOR HANGING PIPING TO BEAR ON OUTSIDE OF INSULATION. PROVIDE INSULATION PROTECTORS AT HANGERS BEARING ON THE OUTSIDE OF INSULATION. PROVIDE A RIGID INSERT OR RIGID INSULATION AT EACH INSULATION PROTECTOR.
	WHERE SEVERAL HANGERS OF DIFFERENT SIZES ARE RUN PARALLEL AND IN THE SAME PLANE, THEY MAY BE SUPPORTED ON GANG OR MULTIPLE HANGERS. SUPPORTING SHALL BE INDEPENDENTLY HUNG, RUN PARALLEL AND BE EQUALLY SPACED.
	PIPES SHALL BE SUPPORTED IN ACCORDANCE WITH IPC SECTION 308, AND SPACING OF HANGERS SHALL NOT EXCEED THE UNITS SET FORTH IN TABLE 308.5. PIPES SHALL BE SUPPORTED WITHIN 1'-0" OF EACH ELBOW.
	VERTICAL PIPE SUBJECT TO MOVEMENT SHALL BE SUPPORTED FROM THE WALL BY MEANS OF A PIPE CLAMP.
	SUPPORT DOMESTIC WATER PIPING IN SPACES BEHIND PLUMBING FIXTURES BY BRACKETS AND U-BOLTS SECURED TO WASTE AND VENT STACKS. SIZE U-BOLTS TO BEAR ON THE PIPING.
	AFTER HANGER RODS ARE INSTALLED IN FINISHED CONCRETE CEILING, FILL THE REMAINING OPENING WITH CEMENT SO THAT NO HOLE SHOWS AT THE CEILING.
	WHERE COPPER PIPING IS USED, NONFERROUS METAL SUPPORT(S) OR PROPER ISOLATION BETWEEN DISSIMILAR MATERIALS SHALL BE PROVIDED.
	PIPE HANGERS AND SUPPORTS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH RECOMMENDATIONS SET FORTH IN MANUFACTURER'S STANDARDIZATION SOCIETY STANDARD PRACTICES NO. 5P-69 AND 5P-58.
	SLEEVES SLEEVES SHALL BE PROVIDED WHERE PIPES PASS THROUGH WALLS, FLOORS AND ROOFS. PROVIDE STANDARD WEIGHT STEEL SLEEVES IN CONCRETE AND MASONRY CONSTRUCTION, PROVIDE 26GA GALVANIZED SHEET METAL SLEEVES IN INTERIOR DRYWALL CONSTRUCTION. SLEEVES SHALL BE THE FULL THICKNESS OF WALLS AND SHALL ALLOW FOR THE FULL THICKNESS OF PIPE INSULATION, WHERE APPLICABLE.
	PROVIDE SLEEVE FOR ALL BELOW FLOOR PIPING PASSING UNDER FOOTINGS OR THROUGH FOUNDATION WALLS (SLEEVE SHALL BE TWO PIPE SIZES GREATER THAN THE PIPE)
	SLEEVES MAY BE OMITTED WHEN OPENINGS ARE CORE DRILLED FOR CONCEALED VERTICAL AND HORIZONTAL PIPING. SLEEVES ARE NOT REQUIRED AT INDIVIDUAL PLUMBING FIXTURES OR IN CONCRETE FLOOR SLABS ON GRADE, UNLESS OTHERWISE NOTED.
	SLEEVES FOR ALL PIPING PENETRATING FIRE RATED WALLS AND FLOORS SHALL BE PROVIDED WITH 3M PIPE BARRIER NO. CP-25 FIRE PROOFING CAULKING, OR EQUAL, IN ANNULAR SPACE BETWEEN SLEEVE AND PIPING. CONTRACTOR SHALL VERIFY THE RATING OF THE WALL AND CONFIRM THE PENETRATION PROTECTION PROVIDED MEETS THAT RATING.
	PENETRATIONS THROUGH OUTSIDE WALLS SHALL BE WATERTIGHT. CAULK BETWEEN PLUMBING PIPE AND SLEEVE. PACK WITH FIBERGLASS AND CAULK, 1" DEEP AT EACH FACE WITH NON-HARDENING SEALANT BETWEEN PIPE AND SLEEVE.

SPECIFICATIONS	
WASTE AND VENT PIPING SYSTEMS AND ACCESSORIES	SANITARY PIPING SHALL BE PVC SCHEDULE 40 SOLID WALL PIPE AND DWV FITTING SYSTEM.
	PIPE AND FITTINGS SHALL BE MANUFACTURED FROM PVC COMPOUND WITH A CELL CLASS OF 12454 PER ASTM D-1784 AND CONFORM WITH NATIONAL SANITATION FOUNDATION (NSF) STANDARD 14. PIPE SHALL BE IRON PIPE 51Z (IPS) CONFORMING TO ASTM D-1785 AND ASTM D-2665. INJECTION MOLDED FITTINGS SHALL CONFORM TO ASTM D-2665. FABRICATED FITTINGS SHALL CONFORM TO ASTM F-1866. SOLVENT CEMENTS SHALL CONFORM TO ASTM D-2564. PRIMER SHALL CONFORM TO ASTM F-656.
	WASTE AND VENT PIPING SHALL BE TESTED IN ACCORDANCE WITH THE GOVERNING CODES. AT A MINIMUM, WASTE PIPING SHALL BE TESTED WITH AT LEAST 10 FOOT OF WATER HEAD PRESSURE APPLIED. TESTING WITH AIR IS NOT ALLOWED.
	ALL VENTS THROUGH ROOF SHALL BE LOCATED AT LEAST 10'-0" AWAY FROM ANY AIR INTAKE, EVAPORATIVE COOLER, OR ANY OTHER DEVICE THAT WOULD DRAW AIR FROM THE VENT. FLASH AROUND ALL PIPES PENETRATING THROUGH ROOF WITH STANDARD MANUFACTURED FLASHINGS. FLASHING SHALL BE SHEET METAL WITH RUBBER GASKETS AND SHALL EXTEND INTO ROOFING AND UP PIPE DISTANCES IN ACCORDANCE WITH THE LOCAL CODE.
	NO DOUBLE COMBINATION FITTINGS MAY BE UTILIZED IN THE HORIZONTAL.
	BACK-TO-BACK WATER CLOSETS COMBINING IN THE VERTICAL SHALL UTILIZE A DOUBLE COMBINATION WYE EIGHTH END FITTING. DOUBLE SANITARY TEE OR SANITARY CROSS IS NOT ACCEPTABLE.
DOMESTIC WATER SYSTEMS AND ACCESSORIES	
	WATER PIPING ABOVE SLAB: TYPE 'L' HARD DRAWN COPPER TUBING, ASTM B88, WROUGHT SOLID ENDENTS, AND 316L SS.
	WATER PIPING BELOW SLAB: TYPE 'K' SOFT DRAWN COPPER TUBING, WITH NO JOINTS BELOW SLAB, ASTM B88.
	ALL DOMESTIC HOT WATER PIPING SHALL HAVE A MINIMUM PRESSURE RATING OF 100PSI @ 100°F.
	DOMESTIC WATER PIPING SHALL BE TESTED IN ACCORDANCE WITH THE GOVERNING CODES. PIPING SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. PIPING TO BE FLUSHED AND STERILIZED IN ACCORDANCE WITH IPC 610.1 AND ALL APPLICABLE LOCAL AND STATE HEALTH DEPARTMENT STANDARDS.
	BALL VALVES SHALL BE TWO-PIECE BRONZE BODY, LARGE PORT WITH SMOOTH BORE CHROME PLATED BRASS BALL. SEATS SHALL BE REINFORCED TFE WITH ADJUSTABLE PACKING AND THREE ADJUSTABLE PACKING NUTS. PROVIDE STEM EXTENSION AS NEEDED TO PROVIDE PROPER TORQUE. INSULATION ON THE OUTSIDE OF BALL VALVES SHALL BE APOLLO 70 OR EQUAL.
	BACKFLOW PREVENTERS SHALL BE INSTALLED IN ALL APPLICABLE LOCATIONS FOR LEAKS OF TESTING AND SERVICING. FOR BACKFLOW PREVENTERS WITH SHUT OFF CONNECTIONS, SHUT OFF VALVE SHALL BE NEAREST DRAIN AND DISCHARGE WITH AIR GAP. BACKFLOW PREVENTERS SHALL BE TESTED IN ACCORDANCE WITH IPC 312.10.2. CONTRACTOR SHALL PROVIDE CERTIFICATIONS THAT STATE DEPARTMENTS HAVE BEEN TESTED AND APPROVED.
	THERMOMETERS SHALL BE 9" ADJUSTABLE ANGLE, 1-100°F RANGE (TERRICE BX9 OR EQUAL). PRESSURE GAUGES SHALL BE 4 1/2" DIA., 0-100PSI (TERRICE GA90 OR EQUAL).
	CONTRACTOR SHALL FIELD VERIFY INCOMING DOMESTIC WATER PRESSURE. WHERE PRESSURE EXCEEDS 80PSI, PROVIDE PRESSURE REGULATING VALVE (WATTS 15225) AND UPSTREAM STRAINER (WATTS 15F777).
	CONTRACTOR SHALL FIELD COORDINATE LOCATION OF ACCESSIBLE ISOLATION VALVES ON DOMESTIC HOT & COLD WATER SUPPLIES TO FIXTURES OR GROUPS OF FIXTURES SUCH THAT THEY MAY BE SHUT OFF FOR SERVICING. SERVICE AND HOSE BIBB VALVES SHALL BE IDENTIFIED. ALL OTHER VALVES INSTALLED IN LOCATIONS THAT ARE NOT ADJACENT TO THE FIXTURE(S) SHALL BE IDENTIFIED INDICATING THE FIXTURE(S) SERVED.
	INSULATION INSULATE ALL DOMESTIC HOT WATER PIPING REGARDLESS OF MATERIAL. WHERE RECIRCULATED HOT WATER IS SHOWN, INSULATE ALL HOT WATER AND RECIRCULATION PIPING WITH 1" THICK INSULATION PER CHAPTER 5 OF IECC. FOR NON-RECIRCULATED HOT WATER SYSTEMS, INSULATION THICKNESS SHALL BE AS FOLLOWS: PIPE UP TO 2": 1" THICK INSULATION. PIPE 2" AND GREATER: 1/2" THICK INSULATION.
	INSULATE ALL HORIZONTAL COLD WATER PIPING LOCATED ABOVE CEILING, VERTICAL PIPING LOCATED IN AN EXTERIOR WALL, EXPOSED PIPING (I.E. MECH ROOMS). PIPE INSULATION SHALL BE 1" THICK. INSULATION MAY BE OMITTED FOR HORIZONTAL CPVC PIPING LESS THAN 1/2".
	INSULATION SHALL HAVE A K-FACTOR (AVERAGE THERMAL CONDUCTIVITY) NOT TO EXCEED 0.27 BTU-IN/HR x SQFT x °F.
	NATURAL GAS SYSTEMS AND ACCESSORIES IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE LOCAL GAS UTILITY PROVIDER TO CONFIRM THE AVAILABILITY OF THE INDICATED DESIGN DELIVERY PRESSURE PRIOR TO COMMENCING WORK.
	ALL GAS PIPING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE INTERNATIONAL FUEL GAS CODE AND NFPA 54.
	GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL (ASTM A53/A53M). FITTINGS SHALL BE ASME B16.3 MALLEABLE IRON OR ASTM A234/A234M WROUGHT STEEL WELDING TYPE. JOINTS SHALL BE THREADED OR WELDED TO ASME B31.1.
	ALL GAS FIRED APPLIANCES ARE PROVIDED WITH A GAS PRESSURE OF 7" W.C. AT FINAL EQUIPMENT CONNECTION. IF 7" W.C. EXCEEDS EQUIPMENT'S SPECIFIC INLET PRESSURE REQUIREMENT, CONTRACTOR SHALL PROVIDE APPROPRIATE PRESSURE REGULATING VALVE.
	GAS PIPING ON ROOF SURFACES SHALL BE ELEVATED NO LESS THAN 3/4" INCHES ABOVE ROOF SURFACE AND SHALL BE CLAMPED TO RUBBER CHANNEL SUPPORTS (MIFAB C10 SERIES OR EQUAL). PROVIDE SUPPORT AT EVERY ELBOW. THE MAXIMUM SPACING OF SUPPORTS SHALL BE: 1/2" PIPE: 5'-0", 3/4" PIPE: 6'-0", 1" AND LARGER: 12'-0". VERTICAL PIPING SHALL BE SUPPORTED AT BASE, TOP AND AT 10' INTERVALS (MINIMUM).
	ALL EXTERIOR GAS PIPING SHALL BE PRIMED AND PAINTED O.S.H.A. YELLOW ON ROOF OR PAINTED TO MATCH BUILDING'S EXTERIOR WALLS WHERE VISIBLE.
	BALL VALVES: THREE PIECE BODY, FULL PORT, CHROME PLATED BALL, BLOWOUT PROOF STEM, TFE SEATS, UL LISTED FOR FLAMMABLE LIQUIDS, 600 PSI WOG, THREADED ENDS.
	PRESSURE REGULATOR VALVE: SINGLE STAGE AND SUITABLE FOR NATURAL GAS, STEEL JACKET AND CORROSION RESISTANT COMPONENTS, THREADED FOR REGULATORS NPS 2 AND SMALLER. PROVIDE SHUTOFF VALVE IMMEDIATELY AHEAD OF REGULATOR, AND INSTALL TEST PORTS ON EITHER SIDE REGULATOR, WITH UPSTREAM TEST PORT DOWNSTREAM OF SHUTOFF VALVE. REGULATORS SHALL BE INSTALLED PER IFGC SECTION 410. FOR 2PSI INLET, PROVIDE MAXIKROL 325-L SERIES. PROVIDE VENT PROTECTOR FOR EXTERIOR APPLICATIONS. FOR INTERIOR APPLICATIONS, VENT SHALL BE PIPED TO THE EXTERIOR WITH TURNDOWN AND SCREEN PROTECTOR.
	SHUTOFF VALVES SHALL BE PROVIDED IN ACCORDANCE WITH IFGC 409. INSTALL MANUAL GAS SHUTOFF VALVE FOR EACH GAS APPLIANCE AHEAD OF CORRUGATED STAINLESS STEEL TUBING OR COPPER CONNECTOR. SHUTOFF SHALL BE WITHIN 6' OF APPLIANCE.
	INSTALL UNIONS IN PIPES NPS 2 AND SMALLER, ADJACENT TO EACH VALVE, AT FINAL CONNECTION TO EACH PIECE OF EQUIPMENT.
	ALL NATURAL GAS PIPING INSTALLED BENEATH THE BUILDING SLAB SHALL BE ENCASED IN WROUGHT IRON CONDUIT. PIPING SHALL BE PROTECTED AND INSTALLED ACCORDING TO THE INTERNATIONAL FUEL GAS CODE SECTION 404.1.4.

REV #	DATE	DESCRIPTION

REFORMATION BREWERY
105 LEWIS STREET
WOODSTOCK, GEORGIA 30188
REFORMATION BREWERY

PLACE MAKER DESIGN
1000 CIRCLE 75 PARKWAY
SUITE 400
ATLANTA, GEORGIA 30339
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SHEET # **GENERAL**

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