ABBREVIATIONS

ABV	ABOVE
AC	AIR CONDITIONING
AD	AREA DRAIN
AR	ACID RESISTANT
AV	ACID VENT
AW	ACID WASTE
BFP	BACK FLOW PREVENTER
BLW	BELOW
BOP	BOTTOM OF PIPE
BT	BATHTUB
BWV	BACK WATER VALVE
CA	COMPRESSED AIR
CB	CATCH BASIN
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CLG	CEILING
CO2	CARBON DIOXIDE
CO	CLEAN OUT
COMP	COMPRESSOR
CONT	CONTINUED
CS	CUP SINK
CSS	CLINICAL SERVICE SINK
CU FT	CUBIC FEET
CW	COLD WATER
DD	DECK DRAIN
DIA/ø	DIAMETER
DISCH	DISCHARGE
DI	DEIONIZED WATER
DIS	DISTILLED WATER
DN	DOWN
DR	DRAIN
DWBP	DOMESTIC WATER BOOSTER PUMP
DWG	DRAWING
DWV	DRAINAGE–WASTE–VENT
(E)	EXISTING
EEW	EMERGENCY EYE WASH
EL	ELEVATION
ES	EMERGENCY SHOWER
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
F	FIRE MAIN – UNDERGROUND
FAI	FRESH AIR INLET
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
FLR	FLOOR
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FRSS	FLUSHING RIM SERVICE SINK
FS	FLOOR SINK
FT	FEET
FU	FIXTURE UNIT
FV	FLUSH VALVE
G	GAS
GH	GROUND HYDRANT
GI	GREASE INTERCEPTOR
GM	GAS METER
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GWH	GAS WATER HEATER
HB	HOSE BIBB
HC	HANDICAP
HP	HIGH PRESSURE
HW	HOT WATER
HWG	HOT WATER GENERATOR
HWR	HOT WATER RETURN
INV EL	
INV	INVERT
	INVERT ELEVATION
IN/WG	INCHES WATER GAUGE
IW	INDIRECT WASTE
KS	KITCHEN SINK
LA	LABORATORY AIR
LAC	LABORATORY AIR COMPRESSOR
LAV	LAVATORY
LP	LOW PRESSURE
LT	LAUNDRY TUB
LV	LABORATORY VACUUM
LVP	LABORATORY VACUUM PUMP
MA	MEDICAL AIR
MAC	MEDICAL AIR COMPRESSOR
MAD	MEDICAL AIR DRYER
MAX	MAXIMUM
MIN	MINIMUM
MTD	MOUNTED
MBH	1000 BTU PER HOUR
MH	MANHOLE
MHP	MOTOR HORSE POWER
MR	MOP RECEPTOR
MV	MEDICAL VACUUM
MVP	MEDICAL VACUUM PUMP
N	NITROGEN
(N)	NEW
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
N2O	NITROUS OXIDE
O	OXYGEN
OAI	OUTSIDE AIR INTAKE
OD	OUTSIDE DIAMETER
ORD	OVERFLOW ROOF DRAIN
ORWC	OVERFLOW RAIN WATER CONDUCTOR
PD	PUMP DISCHARGE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PVC	POLYVINYL CHLORIDE
RD	ROOF DRAIN
RO	REVERSE OSMOSIS
RPM	REVOLUTIONS PER MINUTE
RWC	RAIN WATER CONDUCTOR
SA	SHOCK ABSORBER
SAN	SANITARY
SDR	SCUPPER DRAIN
SE	SEWAGE EJECTOR
SH	SHOWER
SK	SINK
SP	SUMP PUMP
SPD	SUMP PUMP DISCHARGE
SPEC	SPECIFICATIONS
SRV	SAFETY RELIEF VALVE/VENT
SS	SERVICE SINK
SSK	SCRUB SINK
SW	STORM WATER
TB	THRUST BLOCK
TC	TERRA COTTA
TD	TRENCH DRAIN
THERM	THERMOMETER
TOP	TOP OF PIPE
TYP	TYPICAL
UR	URINAL
UON	UNLESS OTHERWISE NOTED
V	VENT
VAC	VACUUM
VB	VACUUM BREAKER
VTR	VENT THROUGH ROOF
W	WASTE
W/	WITH
WAGD	WASTE ANESTHETIC GAS DISPOSAL
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT
WM	WATER METER
YH	YARD HYDRANT

PLUMBING SYMBOLS

- SHUTOFF VALVE – PLAN AND IN RISER – SEE SCHEDULE FOR TYPE
- GLOBE VALVE
- BALL VALVE
- GATE VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- COMBINATION BALANCING/SHUTOFF VALVE W/PRESSURE TAPS
- GAS COCK
- AUTOMATIC CONTROL VALVE (2 – WAY)
- AUTOMATIC CONTROL VALVE (3 – WAY MIXING)
- PRESSURE REDUCING VALVE
- SOLENOID VALVE
- SAFETY/RELIEF VALVE – PLAN AND ELEVATION
- UNION
- CAP
- ELECTRICALLY HEAT TRACED PIPING
- FLEXIBLE CONNECTION
- PIPE ANCHOR
- PIPE GUIDE
- TEE CONNECTION – STRAIGHT, DOWN, AND UP
- PIPE UP AND DOWN
- CLEANOUT, END OF LINE
- CLEANOUT, UP TO FLOOR OR GRADE
- CLEANOUT, WALL
- AIR VENT – (MANUAL)
- EXPANSION LOOP AND SIZE
- SHOCK ABSORBER
- STRAINER
- FLOW SWITCH
- TEMPERATURE GAUGE
- PRESSURE GAUGE
- HOSE BIBB
- FROST PROOF HOSE BIBB
- FLOW ARROW
- BALANCING VALVE
- FLOOR DRAIN/DECK DRAIN
- TRENCH DRAIN

LINE DESIGNATIONS

- SANITARY PIPING
- COLD WATER PIPING
- HOT WATER PIPING
- HOT WATER RETURN PIPING
- 140° HOT WATER PIPING–TEMPERATURE
- 140° HOT WATER RETURN PIPING–TEMPERATURE
- VENT PIPING (SANITARY AND WASTE)
- LW LABORATORY WASTE PIPING
- LV LABORATORY VENT PIPING
- IW INDIRECT WASTE
- F FIRE MAIN
- G GAS PIPING – LOW PRESSURE
- CA COMPRESSED AIR PIPING

MISC. DWG. SYMBOLS

- EXISTING PIPING, EQUIPMENT, FIXTURE, ETC. TO REMAIN (WITH PIPING DESIGNATION)
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- POINT OF CONNECTION BETWEEN EXISTING TO REMAIN AND WORK TO BE REMOVED
- POINT OF CONNECTION FOR FUTURE WORK
- DETAIL NUMBER / DETAIL DRAWING NUMBER
- SECTION LETTER / SECTION DRAWING NUMBER
- PLAN NUMBER / PLAN DRAWING NUMBER
- EQUIPMENT DESIGNATION / EQUIPMENT NUMBER
- FIXTURE/DRAIN DESIGNATION / FIXTURE/DRAIN NUMBER
- RISER NUMBER / RISER DESIGNATION
- PLAN KEY NOTE
- DRAWING REVISION NUMBER

GENERAL NOTES

(APPLICABLE TO ALL PLUMBING CONSTRUCTION WORK)

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF PLUMBING FIXTURES.
2. ROD AND FLUSH OUT ALL BUILDING SOIL, WASTE AND VENT LINES BEFORE AND AFTER FIXTURES ARE SET IN PLACE TO INSURE THAT NO BLOCKAGE EXISTS WHEN BUILDING IS ACCEPTED BY THE OWNER.
3. INSTALL ALL WALL CLEANOUTS 18" ABOVE FINISHED FLOOR. UNLESS NOTED OTHERWISE.
4. MINIMUM SIZE OF DOMESTIC WATER PIPING SHALL BE 1/2".
5. FIELD VERIFY ALL EXISTING INVERTS OF CONNECTION POINTS BEFORE BEGINNING WORK.
6. NOTIFY ENGINEER IF A PROBLEM EXISTS BEFORE BEGINNING WORK.
7. INSTALL ALL PLUMBING PIPES AS HIGH AS POSSIBLE WHILE MAINTAINING REQUIRED SLOPES.
8. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL OPENINGS FOR PIPING AND SLEEVES, ETC. THE PLUMBING CONTRACTOR SHALL PROVIDE CAULKING AND/OR FIRE STOPS IN ALL FIRE RATED WALLS, CEILINGS AND FLOORS FOR THESE PENETRATIONS.
9. ALL PIPE SIZES INDICATED ARE INSIDE PIPE SIZE. (IPS)
10. PROVIDE HAND SHUTOFF VALVES ON ALL COLD, HOT, AND HOT RECIRC LINE AT EACH WING BRANCH, AS INDICATED ON PLANS AND AT EACH STUB–IN LOCATION.
11. FURNISH ACCESS PANELS TO BE INSTALLED BY GC AS REQUIRED TO ACCESS VALVES.
12. PROVIDE ALL NECESSARY VALVES, TRAPS, FLOW CONTROLS, FILTERS, BACKFLOW PREVENTERS, FAUCETS, STOPS, TAILPIECES, VACUUM BREAKERS, IF NOT FURNISHED ON, OR WITH THE NEW EQUIPMENT.
13. THESE DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL PLUMBING LAYOUTS AND PIPE ROUTING, THE CONTRACTOR SHALL PREPARE DETAILED SHOP DRAWINGS AND COORDINATE LOCATION IN ATTIC SPACE WITH ALL TRADES.

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DATE: 12.23.2011

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PLUMBING SYMBOLS AND LEGEND

P-001

SOLUTIONS THROUGH LISTENING
SERVICE BY DESIGN
FOR CONSTRUCTION