

LEGEND - PLUMBING

MARK	DESCRIPTION
—H—	NEW SITE WATER SERVICE PIPING
—F—	NEW SITE FIRE PROTECTION WATER PIPING
—MPC—	NEW MEDIUM PRESSURE GAS PIPING
—OSP—	NEW GAS SERVICE PIPING (BY SERVING UTILITY)
—O—	NEW LOW PRESSURE GAS PIPING
—RL—	NEW RAIN LEADER PIPING
—SV—	NEW SANITARY VENT PIPING
—SW—	NEW SANITARY WASTE PIPING
—FCW—	NEW DOMESTIC COLD WATER PIPING
—FHW—	NEW DOMESTIC HOT WATER PIPING (120°F)
—FHWV—	NEW DOMESTIC RECIRCULATING HOT WATER PIPING (120°F)
—D—	NEW CONDENSATE DRAIN PIPING
—SL—	NEW REFRIGERANT SUCTION AND LIQUID PIPING
—MG—	NEW MIXED GAS PIPING
—CO2—	NEW CARBON DIOXIDE PIPING
—LN2—	NEW LIQUID NITROGEN PIPING
●	FULL PORT BALL VALVE (LEAD-FREE)
⊕	CIRCUIT-SETTER TYPE MANUAL BALANCING VALVE
⊖	GAS COCK
⊘	SHUTOFF VALVE IN DROP
— —	UNION
⊙	CHECK VALVE
⊕	TYPICAL FINISHED GRADE CLEANOUT
⊖	PRESSURE REDUCING VALVE
⊕	THERMOMETER WITH WELL
⊕	PRESSURE GAUGE AND COCK
⊕	HOSE BIBB
⊕	WALL CLEANOUT
⊕	BACKFLOW PREVENTER
FD	FLOOR DRAIN
HW	HOT WATER
CW	COLD WATER
W	WASTE
V	VENT
A/C	ABOVE CEILING
B/S	BELOW SLAB
B/F	BELOW FLOOR
A/G	ABOVE FINISHED GRADE
B/G	BELOW FINISH GRADE
I/W	IN WALL
DN	DOWN
FFCO	FINISH FLOOR CLEANOUT
FGCO	FINISH GRADE CLEANOUT
VTR	VENT THRU ROOF
AFB	ABOVE FINISHED FLOOR
CO	CLEANOUT
RD	ROOF DRAIN
TP	TRAP PRIMER BELOW SLAB/FLOOR
—	1 HOUR FIRE RATED PARTITION (VERIFY WITH ARCHITECTURAL DRAWINGS)

GENERAL PLUMBING NOTES:

- PROVIDE AND INSTALL ALL PLUMBING PIPING, FIXTURES, TRIM, AND ACCESSORIES AS REQUIRED FOR A COMPLETE AND FUNCTIONAL PLUMBING SYSTEM. CONTRACTOR SHALL VERIFY WITH ARCHITECT AND DRAWINGS, WHICH PLUMBING INSTALLATIONS ARE DESIGNATED FOR ADA ACCESSIBILITY. ALL SUCH FIXTURE INSTALLATIONS SHALL INCLUDE ALL INSTALLATION ACCESSORIES, MOUNTING/CLIP HEIGHT, CONTROL OFFSET, SIZE AND ACCESSIBILITY AS REQUIRED BY LATEST EDITION OF AMERICANS WITH DISABILITIES ACT (ADA) AND LOCAL GOVERNING AUTHORITIES.
- ALL PLUMBING VENTS, WHERE NOTED VENT UP (V. UP), SHALL BE COMBINED WITHIN WALL OR ABOVE CEILING CONCEALED AREAS, WHERE FEASIBLE, SO AS TO MINIMIZE ROOF PENETRATIONS. CONTRACTOR SHALL COORDINATE LOCATION OF ROOF PLUMBING AND FLUE VENTS SUCH THAT ALL VENTS ARE MINIMUM 25 FEET FROM ANY VENTILATION INTAKE DEVICES. ALL ROOF PENETRATIONS, VENTS, FLUES, ETC., SHALL BE MADE ON BACK SIDE OF ROOF AS CAN BE COORDINATED WITH ARCHITECT. ALL FLUES AND VENTS EXPOSED ABOVE ROOF SHALL BE FIELD PAINTED COLOR BY ARCHITECT.
- ALL DRAINAGE, VENT AND WATER PIPING SHALL BE CONCEALED INSIDE WALLS AND PIPE CHASES OR ABOVE CEILINGS, EXCEPT AS OTHERWISE NOTED AND AT APPROPRIATE EQUIPMENT FINAL CONNECTIONS. HOLD ALL PIPING ABOVE CEILINGS AS HIGH AS POSSIBLE AND COORDINATE WITH OTHER CRAFTS.
- COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL TRADES. PIPE ROUTING SHOWN IS DIAGRAMMATIC. PROVIDE ALL OFFSETS, ETC., TO AVOID INTERFERENCES WITH STRUCTURAL MEMBERS, EQUIPMENT, PIPING, DUCTWORK, LIGHTS, CONDUIT, ETC.
- VERIFY/COORDINATE PIPE SIZES AND CONNECTIONS WITH "PLUMBING FIXTURE ROUGH-IN SCHEDULE" FOR WASTE, VENT AND WATER PIPING ROUGH-IN SIZES NOT CLEARLY SHOWN ON PLANS OR IN RISER DIAGRAMS, ETC. CONTACT PROFESSIONAL SHOULD QUESTIONS OR CONFLICTS ARISE. PROVIDE AND INSTALL ROUGH-IN, FINAL CONNECTIONS AND INSTALLATION APPURTENANCES AS RECOMMENDED BY APPLIANCE AND/OR EQUIPMENT MANUFACTURER FOR DISHWASHERS, ICE MAKERS, AND MACHINES, WASHERS, DRYERS, ETC. VERIFY LOCATION ON ARCHITECTURAL DRAWINGS AND CONNECTION REQUIREMENTS FROM APPROVED BROCHURES OF THE EQUIPMENT AND/OR APPLIANCES MANUFACTURER.
- COORDINATE SLOPE OF ALL DRAINAGE AND VENT PIPING BELOW GRADE AT INVERT ELEVATIONS INDICATED. CONSISTENTLY SLOPE ALL OTHER PIPING, NOT INDICATED, AS REQUIRED BY PLUMBING CODE APPLICABLE TO THIS PROJECT BUT IN NO CASE LESS THAN 1%.
- ALL VERTICAL RISERS TO FLOOR DRAINS AND FLOOR MOUNTED SINKS SHALL BE MAXIMUM 18" LONG.
- ALL ABOVE GRADE HORIZONTAL DRAINAGE AND VENT PIPING ROUTING SHALL BE COORDINATED WITH OTHER CRAFTS AND STRUCTURAL/ARCHITECTURAL DRAWINGS. CONSISTENTLY SLOPE ALL PIPING, NOT INDICATED WITH ELEVATIONS, AS REQUIRED BY PLUMBING CODE APPLICABLE TO THIS PROJECT BUT IN NO CASE LESS THAN 1%.
- WHEN SLEEVES, PIPES, CONDUITS, ETC. PENETRATE GRADE BEAMS OR THE BEAMS THE CONTRACTOR SHALL INCREASE THE DEPTH OF THE PENETRATED BEAM BY NO LESS THAN TWICE THE DIAMETER OF THE PENETRATION FOR A DISTANCE OF 4'-0" CENTERED ON THE PENETRATION. WHERE THE PENETRATION INTERRUPTS REINFORCING STEEL, AN EQUAL NUMBER OF LIKE SIZE REINFORCING BARS SHALL BE BENT UNDER THE PENETRATION AND LAP SPLICED TO BAR DIAMETERS ON EACH SIDE. CONCRETE COVER REQUIREMENTS ON ALL SIDES SHALL BE THE SAME AS SHOWN FOR THE UN-MODIFIED GRADE BEAM OR TIE BEAM. SEE STRUCTURAL DRAWINGS FOR FURTHER SPECIFICS, ETC. PROVIDE NEW SCHEDULE 40 PVC PIPE SLEEVE A MIN. TWO SIZES LARGER THAN CARRIER PIPE AT ALL SUCH CROSSINGS. TO EXTEND MIN. 6" PAST FOUNDATION ON BOTH ENDS. PROVIDE CAULK AND SEALANT IN ANNULAR SPACE OF SLEEVES AND WATER PROOF ON ALL BUILDING PERIMETER AND INTERIOR FOOTING AND GRADE BEAM APPLICATIONS.
- ALL CLEANOUTS IN SANITARY, STORM AND CONDENSATE DRAIN PIPING SHALL BE FULL PIPE SIZE UP TO 4" AND SHALL BE 4" SIZE ON 6" AND LARGER PIPING.
- ROUTE ALL HORIZONTAL INSULATED DOMESTIC WATER PIPING UNDER ATTIC INSULATION WHERE ATTIC INSULATION OCCURS.

MISCELLANEOUS POWER CONNECTIONS SCHEDULE

MARK	DESIGNATION	INTERACTION REQUIRED	POWER REQUIREMENTS	REMARKS
DIS.	DISPOSAL	ELECTRICAL	120v, 1ph. (3/4 HP)	IN-SINK-ERATER 3/4 HP (EVOLUTION COMPACT)

PLUMBING FIXTURE SCHEDULE

MARK	ADA REQ'D	DESCRIPTION	ROUGH-IN REQUIREMENTS					FLOOR M.TND. CARRIER REQ'D
			WASTE	VENT	120 °F HW	CW	TEMPERED	
WC-1	YES	WATER CLOSET - FLOOR MOUNTED FLUSH VALVE	4"	2'-4"	-	1"	-	YES
L-1	YES	LAVATORY - OVAL COUNTER MOUNTED (UNDER-COUNTER)	2"	1'-1/2"	1/2"	1/2"	-	NO
S-1	NO	SINK - SINGLE COMPARTMENT, STAINLESS STEEL, SELF-RIMMING (BREAK ROOM)	2"	1'-1/2"	1/2"	1/2"	-	NO
S-2	NO	SINK - SINGLE COMPARTMENT, STAINLESS STEEL, SELF-RIMMING (EXAM HANDWASH)	2"	1'-1/2"	1/2"	1/2"	-	NO
S-3	NO	SINK - SINGLE COMPARTMENT, STAINLESS STEEL, SELF-RIMMING (CLEAN UTILITY)	2"	1'-1/2"	1/2"	1/2"	-	NO
S-4	NO	SINK - SINGLE COMPARTMENT, STAINLESS STEEL, SELF-RIMMING (ANDROLOGY - LARGE)	2"	1'-1/2"	1/2"	1/2"	-	NO
SS-1	NO	SERVICE SINK - FLOOR MOUNTED TERRAZZO CORNER TYPE	3"	1'-1/2"	1/2"	1/2"	-	NO
SH-1	YES	SHOWER FITTINGS AND DRAIN	2"	1'-1/2"	1/2"	1/2"	-	NO
EDF-1	YES	ELECTRIC DRINKING FOUNTAIN - WALL MOUNTED TYPE (DUAL HEIGHT)	2"	1'-1/2"	-	1/2"	-	YES
HB-1	NO	HOSE BIBB - NON-FREEZE TYPE IN LOCKING BOX	-	-	-	3/4"	-	NO
TP-1	NO	TRAP PRIMER - CONNECT TO FLUSH VALVE ASSEMBLY	-	-	-	1/2"	-	NO
TG-1	NO	TRAP GUARD	-	-	-	-	-	NO
IMB	NO	ICE MAKER WITH TYPE "K" COPPER WATER LINE	-	-	-	1/2"	-	NO
DW	NO	DISHWASHER CONNECTIONS	1"	-	1/2"	-	-	NO
FD-1	NO	FLOOR DRAIN - GENERAL DRAINAGE IN TOILET, DIRTY LINEN, AND TRASH AREAS	3"	1'-1/2"	-	-	-	NO
RD-1	NO	ROOF DRAIN (SEE PLAN FOR SIZE)	-	-	-	-	-	NO

CIRCULATING PUMP SCHEDULE

MARK	LOCATION	SYSTEM	CIRCULATING FLUIDS					ELECTRICAL DATA				BASIS OF DESIGN	
			FLUID	G.P.M.	PUMP HEAD FT. FLUID	TEMP., °F	SP. GR.	% EFF.	TYPE	NOM. HP.	SERVICE		R.P.M.
CP-01	WH-01	A	WATER	3	20	60-200	1	-	A	1/12	120V, 1ph	2850	BELL & GOSSETT MODEL PL-30B

[1] SYSTEM
A. DOMESTIC HOT WATER RECIRCULATING

[2] TYPE
A. INLINE - LOW LEAD BRONZE OR STAINLESS STEEL

COMPARABLE PRODUCTS:
BELL AND GOSSETT, PACO, TACO

DOMESTIC WATER HEATER SCHEDULE

MARK	FUEL	STORAGE CAP., GAL.	RECOVERY G.P.H. AT 60 °F RISE	INPUT MBHR	ELECTRICAL SERVICE	BASIS OF DESIGN	NOTES
WH-01	N. GAS	50	138	76	120V, 1ph	AO SMITH MODEL BTX-80	1, 2, 3, 4

NOTES:
1. PROVIDE PIPING, VALVES AND ACCESSORIES PER DETAILS.
2. PROVIDE RECIRCULATING PUMP AND PIPING PER DETAIL.
3. PROVIDE WITH MANUFACTURER'S CONCENTRIC VENT TERMINATION KIT.
4. PROVIDE WITH MANUFACTURER CONDENSATE NEUTRALIZATION KIT.

MOTOR STARTER SCHEDULE

SERVING	HP OF EACH LOAD	ELECTRICAL CHARACTERISTICS	BASIS OF DESIGN	NOTES [1]
CP-01	1/12	120V, 1ph	FRANKLIN CONTROLS MODEL BAS-1P	1, 2, 3

[1] NOTES
1. COORDINATE CONTROL CONTACTOR REQUIREMENTS WITH ENERGY MANAGEMENT SYSTEM (EMS) TO ACHIEVE SPECIFIED SEQUENCE OF OPERATIONS.
2. MOUNT STARTER WITHIN 10' OF EQUIPMENT SERVED. COORDINATE IN FIELD SPECIFIC LOCATION.
3. COMBINATION MOTOR STARTER/RECONNECT.



REVISIONS		
NO.	DESCRIPTION	DATE