

PLUMBING FIXTURE										
ID	BASIS OF DESIGN			COLD	HOT	WASTE	INDIRECT	VENT	TRAP	SPECIFICATION
	MANUFACTURER & MODEL	ACCESSORIES								
WC-1	WATER CLOSET – AMERICAN STANDARD #3461.001 FLUSH VALVE – ZURN #ZEMS6000AV-IS-MOB-HET	HEAVY DUTY SEAT – AMERICAN STANDARD #5901.100, JUNCTION BOX - ZURN #P6000-MJ, POWER CONVERTER - ZURN #P#6000-HW6	1"	---	4"	---	2"	INTEGRAL	WATER CLOSET - ADA COMPLIANT, 28-1/4"x14"x16-1/2"H, FLOOR MTD, 10" ROUGH IN, ELONGATED BOWL, VITREOUS CHINA, INTEGRAL STOPS AND TRAP, SIPHON JET, 1,000G MaP SCORE, 1-1/2" EXPOSED TOP SPUD, SEAT - OPEN FRONT SEAT, SELF SUSTAINING HINGES, LESS COVER, FLUSH VALVE - 1.28 GPF, EXPOSED, HARDWIRED SENSOR OPERATED, CHROME PLATED POLISHED EXTERIOR, DIAPHRAGM-TYPE VALVE, AQUAVANTAGE TPE CHLORAMINE RESISTANT, DUAL SEAL DIAPHRAGM WITH CLOG RESISTANT, TRIPLE FILTERED BY-PASS, HIGH BACK PRESSURE VACUUM BREAKER, CONTROL STOP, VANDAL RESISTANT, 6 VDC MOTOR ACTUATOR, INTEGRAL INFRARED CONVERGENCE-TYPE PROXIMITY SENSOR AND MANUAL PUSH BUTTON OVERRIDE, INCLUDE JUNCTION BOX AND POWER CONVERTER	
WC-2	WATER CLOSET - AMERICAN STANDARD "MADERA" #3451.001, FLUSH VALVE - ZURN #ZEMS6000AV-IS-MOB-HET,	HEAVY DUTY SEAT – AMERICAN STANDARD #5901.100, JUNCTION BOX - ZURN #P6000-MJ, POWER CONVERTER - ZURN #P#6000-HW6	1"	---	4"	---	2"	INTEGRAL	WATER CLOSET - 28-1/4"x14"x15"H, FLOOR MTD, 10" ROUGH IN, VITREOUS CHINA, ELONGATED BOWL, INTEGRAL STOPS AND TRAP, SIPHON JET, 1,000G MaP SCORE, 1-1/2" EXPOSED TOP SPUD, SEAT - OPEN FRONT SEAT, SELF SUSTAINING HINGES, LESS COVER, FLUSH VALVE - 1.28 GPF, EXPOSED, HARDWIRED SENSOR OPERATED, CHROME PLATED POLISHED EXTERIOR, DIAPHRAGM-TYPE VALVE, AQUAVANTAGE TPE CHLORAMINE RESISTANT, DUAL SEAL DIAPHRAGM WITH CLOG RESISTANT, TRIPLE FILTERED BY-PASS, HIGH BACK PRESSURE VACUUM BREAKER, CONTROL STOP, VANDAL RESISTANT, 6 VDC MOTOR ACTUATOR, INTEGRAL INFRARED CONVERGENCE-TYPE PROXIMITY SENSOR AND MANUAL PUSH BUTTON OVERRIDE, INCLUDE JUNCTION BOX AND POWER CONVERTER	
UR-1	URINAL – AMERICAN STANDARD #6002.001 PINTBROOK, FLUSH VALVE – ZURN #ZEMS6003AV-IS-MOB-EWS,	JUNCTION BOX - ZURN #P#6000-MJ, POWER CONVERTER - ZURN #P#6000-HW6,	3/4"	---	2"	---	2"	INTEGRAL	URINAL - ADA COMPLIANT, 14-5/16"x14-7/16"x22-5/8"H, 0.5 GPF, LOWER LIP MOUNTED 17" FROM FINISHED FLOOR, VITREOUS CHINA, WASHOUT ACTION, INTEGRAL TRAP, 2" NPT OUTLET, 3/4" EXPOSED TOP SPUD FLUSH VALVE - 0.5 GPF, EXPOSED, HARDWIRED SENSOR OPERATED, CHROME PLATED POLISHED EXTERIOR, DIAPHRAGM-TYPE VALVE, AQUAVANTAGE TPE CHLORAMINE RESISTANT, DUAL SEAL DIAPHRAGM WITH CLOG RESISTANT, TRIPLE FILTERED BY-PASS, HIGH BACK PRESSURE VACUUM BREAKER, CONTROL STOP, VANDAL RESISTANT, 6 VDC MOTOR ACTUATOR, INTEGRAL INFRARED CONVERGENCE-TYPE PROXIMITY SENSOR AND MANUAL PUSH BUTTON OVERRIDE, INCLUDE JUNCTION BOX AND POWER CONVERTER	
UR-2	URINAL – AMERICAN STANDARD #6002.001 PINTBROOK, FLUSH VALVE – ZURN #ZEMS6003AV-IS-MOB-EWS,	JUNCTION BOX - ZURN #P#6000-MJ, POWER CONVERTER - ZURN #P#6000-HW6,	3/4"	---	2"	---	2"	INTEGRAL	URINAL - STANDARD HEIGHT, 14-5/16"x14-7/16"x22-5/8"H, 0.5 GPF, LOWER LIP MOUNTED 24" FROM FINISHED FLOOR, VITREOUS CHINA, WASHOUT ACTION, INTEGRAL TRAP, 2" NPT OUTLET, 3/4" EXPOSED TOP SPUD FLUSH VALVE - 0.5 GPF, EXPOSED, HARDWIRED SENSOR OPERATED, CHROME PLATED POLISHED EXTERIOR, DIAPHRAGM-TYPE VALVE, AQUAVANTAGE TPE CHLORAMINE RESISTANT, DUAL SEAL DIAPHRAGM WITH CLOG RESISTANT, TRIPLE FILTERED BY-PASS, HIGH BACK PRESSURE VACUUM BREAKER, CONTROL STOP, VANDAL RESISTANT, 6 VDC MOTOR ACTUATOR, INTEGRAL INFRARED CONVERGENCE-TYPE PROXIMITY SENSOR AND MANUAL PUSH BUTTON OVERRIDE, INCLUDE JUNCTION BOX AND POWER CONVERTER	
LV-1	LAVATORY – AMERICAN STANDARD "TOWNSEND" #0330.000 FAUCET – SLOAN #ETF-410-BOX-BDT-GR-0.5GPM-MLM-FCT,	OFFSET DRAIN – ZURN #Z8746-PC, P-TRAP – ZURN #Z8700LC-PC, SUPPLY STOPS – ZURN #Z8800-XL-LR-PC.	1/2"	1/2"	2"	---	2"	1-1/4"	LAVATORY - ADA COMPLIANT, 19-1/2"x13-5/8" (17-3/4"x11-5/8"x4-1/2"D INSIDE), COUNTER UNDERMOUNT, WHITE VITREOUS CHINA, UNGLAZED RIM ONE FAUCET HOLE CENTERED, FAUCET - 0.5 GPM, HARDWIRED SENSOR OPERATED, CAST BRASS SPOUT, BRUSHED STAINLESS FINISH, LEAD FREE NSF 61 CERTIFIED, 3-1/2" SPOUT HEIGHT, 5-1/2" SPOUT REACH, MULTI-LAMINAR SPRAY OUTLET, INCLUDES BELOW DECK ASSE 1070 THERMOSTATIC MIXING VALVE, BOX TRANSFORMER POWER SUPPLY	
EW-1	ELKAY #LZST18WSLK,	BI-LEVEL CARRIER – ELKAY #MLP200, P-TRAP – ZURN #Z8700B-PC, SINGLE SUPPLY STOP (WHEEL HANDLE) – MCGUIRE #LFST12, FILTER CARTRIDGE – ELKAY #51300C, GFCl RECEPTACLE – 115V/60Hz/1PH, 5.0 FLA, 370 RATED WATTS.	1/2"	---	2"	---	2"	1-1/4"	ELECTRIC WATER COOLER - ADA COMPLIANT, 36-3/4"x19"x39-1/16"H, SPLIT LEVEL, BARRIER FREE, LEAD FREE, WALL MOUNTED, ELECTRONIC SENSOR ACTIVATED BOTTLE FILLER STATION, 8 GPH OF 50F WATER AT 90°F AMBIENT AND 80°F INLET WATER, MECHANICAL PUSH-BUTTON ACTIVATION WITH ANTI-MICROBIAL PUSH PADS, FILTER CERTIFIED TO NSF 42 AND 53, LIGHT GRAY GRANITE FINISH	
JS-1	MOP SINK – STERN-WILLIAMS #MTB-2424 FAUCET – T&S BRASS #B-0658,	MOP HANGER – STERN-WILLIAMS #T-40, RUBBER HOSE AND HANGER – STERN-WILLIAMS #T-35, (2) SPLASH PANELS – STERN-WILLIAMS #BP-2.24.	1/2"	1/2"	3"	---	2"	3"	MOP SINK – 24" x 24" x 12", FLOOR MOUNTED. PRECAST TERRAZZO. STAINLESS STEEL CAPS. FAUCET – 8" WALL MOUNT MIXING FAUCET WITH POLISHED CHROME PLATED BRASS BODY, POLISHED CHROME PLATED BRASS SPOUT WITH ASSE 1001 CERTIFIED VACUUM BREAKER, PAIL HOOK AND GARDEN HOSE MALE OUTLET. COMPRESSION CARTRIDGES WITH SPRING CHECKS, 6" WRIST ACTION HANDLES, 1/2" NPT FEMALE INLETS. LOOSE KEY STOPS. UPPER SUPPORT ROD, 8.90 GPM @ 60 PSI, 20 – 125 PSI PRESSURE RANGE, 40°F – 140°F TEMPERATURE RANGE, CERTIFIED TO ASME A112.18.1/CSA B125.1, NSF 61 SECTION 9, AND NSF 372, MEETS ADA ANSI/ICC A117.1 REQUIREMENTS.	
FD-1	ZURN #Z415B,	TRAP SEAL - ZURN #1072-3,	---	---	SEE PLAN	---	2"	SEE PLAN	FLOOR DRAIN - 6"D ROUND STRAINER WITH POLISHED NICKEL-BRONZE FINISH, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND TYPE B HEEL-PROOF, LIGHT DUTY STRAINER	
FD-2	ZURN #Z415S,	TRAP SEAL - ZURN #1072-3,	---	---	SEE PLAN	---	2"	SEE PLAN	FLOOR DRAIN - 6" SQUARE STRAINER WITH POLISHED NICKEL-BRONZE FINISH, LAQUERED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND TYPE S SQUARE HEEL-PROOF, LIGHT DUTY STRAINER	

PLUMBING ACCESSORY			
ID	BASIS OF DESIGN	SPECIFICATION	
	MANUFACTURER & MODEL	UTILITY CONNECTION	
ET-1	AMTROL "THERM-X-TROL" #ST-5C-DD.	3/4" CW	EXPANSION TANK - 8"Dx14"H, 0.9 GAL MAX ACCEPTANCE VOLUME, 0.36 GAL DESIGN ACCEPTANCE VOLUME, 150 PSI WORKING PRESSURE, 3/4" NPT THREADED CONNECTION, DEEP DRAWN BUTYL DIAPHRAGM, NSF 61 CERTIFIED, PROVIDE FULL PORT ISOLATION BALL VALVE AT CONNECTION TO CW
MV-1	CALEFFI #521519AC,	1/2"CW INLET, 1/2"HW INLET, 1/2"TW OUTLET	MIXING VALVE - 5-7/8"x7", 1/2" INLET/OUTLET SIZE, SWEAT CONNECTIONS, ASSE 1017 CERTIFIED, THERMOSTATIC, BRASS BODY, NSF 372 CERTIFIED, ADJUSTABLE TEMPERATURE RANGE 85-150F, DESIGN OUTLET TEMP 120F, MIN RECOMMENDED FLOW RATE 1.0 GPM, MIN TEMPERATURE DIFFERENTIAL BETWEEN HOT/COLD 27F, MAX RECOMMENDED PRESSURE DIFFERENTIAL 20 PSI, ADJUSTABLE MANUAL OUTLET SETPOINT WITH LOCKING HANDLE, INCLUDES INTEGRAL CHECK VALVES, ADD OPTIONAL OUTLET TEMPERATURE GAUGE
WCO	CLEANOUT TEE - ZURN #Z1445, ACCESS COVER - ZURN #Z1469-74VP.	SAME SIZE AS LINE, MAX 4"	WALL CLEANOUT - 4", DURA COATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS THREAD PLUG, ROUND STAINLESS STEEL ACCESS COVER WITH SECURING SCREW, 7" DIAMETER, INCLUDE OPTIONAL VANDAL PROOF SCREW
FCO	ZURN #Z1400-B21.	SAME SIZE AS LINE, MAX 4"	FLOOR CLEANOUT - OUTLET SIZE SAME SIZE AS PIPE, 6-8/32" ROUND POLISHED NICKEL BRONZE TOP, DURA COATED DUTY CAST IRON BODY, GAS AND WATER TIGHT THREADED ABS TAPERED PLUG, POLISHED NICKEL BRONZE TOP, ASME LOAD CLASSIFICATION LIGHT DUTY RATED COVER (<2,000 LBS), NEO-LOC OUTLET, EZ1 TOP ASSEMBLY FOR SIMPLIFIED INSTALLATION WITH CONCRETE SHIELD AND PRE-PACKAGED SHIMS
DCOTG	CLEANOUT CAP - ZURN #Z1400-T CLEANOUT FITTING - CHARLOTTE PIPE #SV72,,	SAME SIZE AS LINE, MAX 4"	DOUBLE CLEANOUT TO GRADE - SAME SIZE AS LINE, MAX. 4 INCH, CLEANOUT CAP - 5-1/8" ROUND SCORIATED CAST IRON TOP, DURA COATED CAST IRON BODY, GAS AND WATER TIGHT THREADED ABS TAPERED PLUG, ASME LOAD CLASSIFICATION EXTRA HEAVY DUTY RATED COVER (7,500-10,000 LBS), SQUARE TOP, NEO-LOC OUTLET, ADJUSTABLE TO FINISHED FLOOR. TWO WAY CLEANOUT FITTING - BASIS OF DESIGN CHARLOTTE PIPE HUB AND SPIGOT CAST IRON #SV72

PLUMBING EQUIPMENT									
ID	BASIS OF DESIGN		ELECTRICAL					SPECIFICATION	
	MANUFACTURER & MODEL	UTILITY CONNECTIONS	CONNECTION TYPE	VOLTAGE	PHASE	POWER	AMPS		
WH-1	RHEEM #EGSP15 OPTIONAL MOUNTING KIT: RHEEM #AS36111,	1/2" CW, 1/2" HW	HARDWIRED WITH GFCI PROTECTION	208 V	1	1.5 kW	7.2 A	WATER HEATER - ELECTRIC, 15 GAL, 10 GPH @ 60°F RISE, 17-3/4"DIA 24-1/4"H, TANK TYPE, HIGH-TEMP PORCELAIN ENAMEL TANK LINING, MAGNESIUM ANODE ROD RIGIDLY SUPPORTED, 150 PSI WORKING PRESSURE RATING, COPPER RESTORED SCREW-IN ELEMENTS, 1 HEATING ELEMENT, TWO WIRE SINGLE PHASE OPERATION, INSULATED WITH RIGID POLYURETHANE FOAM, SURFACE MOUNTED THERMOSTATS WITH INTEGRAL MANUAL RESET, HIGH LIMIT CONTROL, CSA/ASME RATED T&P RELIEVE VALVE, UL SEAL OF CERTIFICATION, COMPLETELY FACTORY ASSEMBLED KIT INCLUDES: WALL SUPPORT BRACKETS, TOP SUPPORT BRACKET, SCREWS AND MOUNTING BOLTS, RUGGED STEEL CONSTRUCTION, DESIGNED FOR USE WITH 6,10,15 AND 20 GAL. MODELS, MOUNTS TO WALLS WITH 16 IN. STUD CENTERS	

WATER HAMMER ARRESTOR						
P.D.I. UNITS	A	B	C	D	E	F
FIXTURE UNITS	1-11	12-32	33-60	61-113	114-154	155-330

WIDE "SHOCKSTOP" #4481 SERIES WATER HAMMER ARRESTOR, SEAMLESS COPPER CONSTRUCTION, POLYPROPYLENE PAST, (2) EPDM O-RINGS, MNPT CONNECTION, MAX. PRESS. 350 PSI, MAX. TEMP. 250°F. PROVIDE PROPERLY SIZED WATER HAMMER ARRESTORS AND LOCATE ON PIPING IMMEDIATELY UPSTREAM OF ALL QUICK CLOSING VALVES (E.G. FLUSH VALVES, DISHWASHER, ICE MAKERS, SOLENOID VALVES, ETC.)