

PLUMBING FIXTURE SCHEDULE				
A	TANK WATER CLOSET (HANDICAPPED): AMERICAN STANDARD 2467.016, FLUSH TANK WITH TRIP LEVER ON OPEN SIDE OF TOILET. FLOOR MOUNTED, STANDARD WHITE FINISHED, ELONGATED FRONT BOWL. PRESSURE ASSISTED 1.6 GPF. RIM 16 1/2" A.F.F. AM. STD #142-800 TANK COVER LOCKING DEVICE			
B	LAVATORY: ZURN MODEL Z534, 20"x18" WALL HUNG LAVATORY, VITREOUS CHINA, WITH 4" CENTER FAUCET HOLES & ZURN Z-1231 CONCEALED ARM CARRIER. FAUCET: TOTO T1EL101-D10ET STANDARD ECOPOWER FAUCET, SENSOR, 1.0 GPM, 0.15gpc, 4" COVER PLATE #THP158HC?			
C	NOT USED			
D	FLOOR DRAIN: ZURN # ZB415-B5 CAST IRON DRAIN WITH 5" ROUND POLISHED BRONZE TOP, MEMBRANE FLASHING CLAMP, PROVIDE 3" OUTLET WITH P-TRAP, CLEAN AND POLISH AFTER INSTALLATION. REFER TO DETAIL 17/P-500, PROVIDE TRAP PRIMER			
D1	FLOOR DRAIN: ZURN # ZB415-B5 CAST IRON DRAIN WITH 5" ROUND POLISHED BRONZE TOP, MEMBRANE FLASHING CLAMP, PROVIDE 3" OUTLET WITH P-TRAP, CLEAN AND POLISH AFTER INSTALLATION. REFER TO DETAIL 9/P-500, PROVIDE TRAP PRIMER			
E	FLOOR SINK: ZURN # Z1901-31, RECEPTOR WITH 12" SQUARE TOP x 8" DEEP CAST IRON BODY WITH ACID-RESISTING ENAMEL INTERIOR, RECEPTOR PROVIDED WITH ALUMINUM DOME STRAINER WITHOUT GRATE.			
E1	FLOOR SINK: ZURN # Z1901-2-32, RECEPTOR WITH 12" SQUARE TOP x 8" DEEP CAST IRON BODY WITH ACID-RESISTING ENAMEL INTERIOR, RECEPTOR PROVIDED WITH PORCELAIN ENAMEL LOOSE-SET 1/2 GRATE AND ALUMINUM DOME STRAINER.			
F	NOT USED			
G	FLOOR DRAIN WITH FUNNEL: ZURN # ZB415-AR-4 ACID RESISTING EPOXY COATED CAST IRON DRAIN WITH 5" ROUND POLISHED BRONZE TOP, 4" FUNNEL, PROVIDE 2" OUTLET WITH P-TRAP, CLEAN AND POLISH AFTER INSTALLATION. REFER TO DETAIL, PROVIDE TRAP PRIMER			
H	SAMPLE PORT: MODEL: SCHIER SV24, CONTACT SCHIER REPRESENTATIVE FOR ORDERING INFORMATION AND LOCAL DISTRIBUTORS.			
I	GREASE INTERCEPTOR: MODEL: SCHIER GB-250, CONTACT SCHIER REPRESENTATIVE FOR ORDERING INFORMATION AND LOCAL DISTRIBUTORS. CONTACT INFORMATION: SEAN DUFFY - SCHIER NATIONAL ACCOUNTS MANAGER. PH: 414-559-1787 SEAN.DUFFY@SCHIERPRODUCTS.COM			
J	WATER HAMMER ARRESTER: J. R. SMITH #5020, 1" NIPPLE OR EQUAL			
K	PROVIDE: ZURN 375ST STAINLESS STEEL REDUCED PRESSURE PRINCIPLE ASSEMBLY AT BAG-N-BOX, REFER TO 15/P-500			
L	HOSE BIBB: ACORN #8121 WITH VACUUM BREAKER, CHROME PLATED.			
L1	HOSE BIBB: WOODFORD MB65 FREEZELESS COMMERCIAL CONCEALED BOX TYPE WALL HYDRANT IN SECURE LOCK STYLE MODULAR BOX, SINGLE CHECK ANTI SIPHON VACUUM BREAKER, CHROME HEAD, BRASS VALVE BODY HYDRANT WITH 3/4" HOSE CONNECTION 18" A.F.F.			
M	TRENCH DRAIN: ZURN #Z-886-RFS, 6" WIDE x 80" LONG, TRENCH DRAIN SYSTEM, MODULAR CHANNEL SECTIONS SHALL BE MADE OF HIGH DENSITY POLYETHYLENE WITH INTERLOCK ENDS, A RADIUS BOTTOM AND REINFORCED STAINLESS STEEL SLOTTED GRATE.			
N	PROVIDE WATTS SD-3 DUAL CHECK VALVE WITH ATMOSPHERIC PORT AND STRAINER AFTER EACH BV.			
O	FREEZE PROOF ROOF HYDRANT: WOOFORD MODEL: SRH-MS			
P1	MOP SINK: GSW # SE2424FM 24"x24" STAINLESS STEEL UNIT, 18 GA, STAINLESS STEEL, CHICAGO FAUCET #897 WITH INTEGRAL STOPS IN SHANKS, WALL BRACE, HOSE THREADS, PAIL HOOK, VACUUM BREAKER, ROUGH BRASS FINISH; THREE FOOT RUBBER HOSE; 3" TRAPPED AND VENTED WASTE CONNECTION; PROVIDE 3/4" HW & CW RI 8" OC, 36" A.F.F. PROVIDE 2" CW HOSE BIBB, ACORN #8121 W/ VACUUM BREAKER, 48" A.F.F. FOR CHEMICAL CONNECTION.			
P3	TANKLESS GAS WATER HEATER SYSTEM. MFG. RINNAI MTO-00247(2 CU199), 398,000 BTU/Hr GAS INPUT, 7.7 GPM @ 100" RISE. SEE PIPING DIAGRAM ON SHEET P-400 INCLUDE ALL PIPING, VENTING, WALL MOUNTING BRACKET AND ANY ACCESSORIES NECESSARY TO COMPLETE SYSTEM INSTALL. CONTACT: RICO VIGLIETTI, RINNAI AMERICA CORPORATION CORPORATE ACCOUNTS MANAGER (901 440-7389 JVIGLIETTI@RINNAI.US			
CP	HW CIRC. PUMP - MFG. GRUNDFOS, UP 15-18BS, 1/2S HP, 115 VOLT, 2 GPM @ 7' HEAD OR APPROVED EQUIVALENT.			
RD	RD - ROOF DRAIN: J.R. SMITH #1010 CAST IRON ROOF DRAINS WITH FLASHING COLLAR AND CAST IRON DOME. FURNISH EXTENSION (SUFFIX-E) FOR INSULATED ROOFS. SUMP RECEIVER (SUFFIX-R) AND UNDER-DECK CLAMP (SUFFIX-C) FOR ALL BUT POURED-IN-PLACE INSTALLATIONS. OUTLET CONNECTION TYPE SHALL BE COMPATIBLE WITH PIPING SYSTEM. PLUMBER TO PROVIDE AND INSTALL HEAT TAPE, RADIANT SOLUTIONS #JHSF-30-1 ON BOTH DRAINS IN COLD CLIMATES.			
OD	OD - OVERFLOW ROOF DRAIN: J.R. SMITH #1070 WITH SAME FEATURES AS DESCRIBED FOR 'ROOF DRAINS'. STANDPIPES SHALL BE ADJUSTED AND SECURED SO THAT AFTER THE INSTALLATION OF THE DRAIN ASSEMBLY, THE TOP OF THE STANDPIPE SHALL BE (2") ABOVE THE ADJACENT ROOF SURFACE.			
40B	FAUCET FOR CHEM: T&S BRASS MODEL #B-0669-POL, PROVIDED BY G.C.			

FIXTURE BRANCH SCHEDULE				
FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
WATER CLOSET (HANDICAPPED)	1/2"	--	4"	2"
LAVATORY	1/2"	1/2"	2"	1 1/2"
2 AND 3 - COMP SINK	1/2"	1/2"	3"	2"
HAND SINK	1/2"	1/2"	2"	1 1/2"
MOP SINK (J.S.)	1/2"	1/2"	3"	2"
EQUIPMENT	1/2"	--	--	--
FLOOR DRAIN/SINK	--	--	2" OR 3"	2"

KITCHEN EQUIPMENT SCHEDULE				
ITEMS IN THIS SCHEDULE ARE FURNISHED BY THE OWNER AND INSTALLED BY THE GENERAL CONTRACTOR UNLESS NOTED OTHERWISE AND CONNECTED TO THE PLUMBING UTILITIES BY THE PLUMBING CONTRACTOR, WHO SHALL INSTALL ALL PLUMBING DEVICES FURNISHED WITH EQUIPMENT.				
WASTE, FS = FLOOR SINK, CFD = CONDENSATE FLOOR DRAIN, VB = VACUUM BREAKER, FLEX = A SIX FOOT COILED LENGTH OF FOOD QUALITY FLEXIBLE REINFORCED PLASTIC TUBING CONNECTED FROM THE ROUGH IN TO THE EQUIPMENT WITH ALL REQUIRED ADAPTERS AND HOSE CLAMPS.				
ALL PIPES MUST MAINTAIN A MINIMUM CLEARANCE OF 6" AFF AND MUST BE WELL SUPPORTED. NO FLOOR SUPPORTS ALLOWED.				
4A	SERVING COUNTER MOUNTED SODA MACHINE: IF PROVIDED, SODA MACHINE INSTALLER TO PROVIDE DRAIN LINES FROM ICE BIN AND SODA MACHINE TO FS WITH 1" AIR GAP, DRAIN LINE TO BE INSULATED, WATER TO SODA MACHINE TO BE PROVIDED THROUGH BUNDLE FROM FILTER AND RACK IN KITCHEN BY SODA MACHINE INSTALLER.			
4AB	BEVERAGE COUNTER MOUNTED SODA MACHINE WITH ICE MACHINE: PROVIDE 3/4" COPPER PIPE IW FROM COUNTER TROUGH DRAIN TO FS WITH 1" AIR GAP, INSULATE. WATER TO SODA MACHINE TO BE PROVIDED THROUGH BUNDLE FROM FILTER AND RACK IN KITCHEN BY SODA MACHINE INSTALLER, NO LEGS TO BE INSTALLED, MACHINE TO SET DIRECTLY ON COUNTER.			
4F	WATER FILTER: PROVIDE 1/2" CW AT 96" AFF WITH BV, PROVIDE FLEX AND REDUCED PRESSURE STAINLESS STEEL BACKFLOW PREVENTOR, OR OTHER DEVICE AS REQUIRED BY LOCAL CODE. INSTALL OWNER PROVIDED WATER FILTER AND MAKE CONNECTIONS TO BACKFLOW PREVENTOR AND WATER SUPPLY. PROVIDE ALL REQUIRED FITTINGS TO ALLOW SODA MACHINE INSTALLER TO HOOK UP BOOSTER PUMP TO WATER FILTER. REFER TO DETAIL 15/P-500.			
6B	22"D REAR COUNTER WITH HAND SINK, PROVIDE 1/2" CW AND 1/2" HW AT 24" AFF AND 8" OC WITH CHROME-PLATED, 1/4 TURN BALL VALVES. CONNECT TO OWNER SUPPLIED FAUCETS WITH METAL FLEX 1/2" DRAIN PIPE WITH P TRAP AND WALL MOUNTED CLEAN-OUT. ALL EXPOSED DRAIN PIPES AND FITTINGS TO BE CHROME PLATED, NOT P.V.C.			
9D	ICE TEA MAKER: PROVIDE 1/2" CW @ 24" A.F.F. PROVIDE ALL REQUIRED FITTINGS TO ALLOW ICE TEA INSTALLER TO HOOK UP ONE BV, OTHER BV FOR OTHER EQUIPMENT.			
10J	SODA MACHINE MOUNTED ICE MACHINE: PROVIDE 1/2" CW AT 24" A.F.F. WITH BV, PROVIDE ALL REQUIRED FITTINGS TO ALLOW ICE MACHINE INSTALLER TO HOOK UP ICE MACHINE TO CW.			
20A	CHINESE RANGE: PROVIDE 1/2" CW AT 10" AFF WITH BV, PROVIDE PRESSURE TYPE VB OR OTHER BACKFLOW DEVICE AS REQUIRED BY LOCAL CODE, AND CONNECT TO OWNER SUPPLIED FAUCETS. PROVIDE 2" COPPER PIPE IW TO FS WITH 2" AIR GAP, PROVIDE 1/2" GAS SUPPLY AT 4" AFF WITH EASILY ACCESSIBLE SHUT-OFF VALVE. INSTALL OWNER SUPPLIED GAS REGULATOR AND ADJUST GAS LEVEL TO BURNERS.			
20Q	CHINESE RANGE: PROVIDE 1/2" CW AT 10" AFF WITH BV, PROVIDE PRESSURE TYPE VB OR OTHER BACKFLOW DEVICE AS REQUIRED BY LOCAL CODE, AND CONNECT TO OWNER SUPPLIED FAUCETS. PROVIDE 2" COPPER PIPE IW TO FS WITH 2" AIR GAP, PROVIDE 1" GAS SUPPLY DOWN TO 3" AFF REDUCE TO 1/2" AT EQUIPMENT CONNECTION WITH EASILY ACCESSIBLE SHUT-OFF VALVE. INSTALL OWNER SUPPLIED GAS REGULATOR AND ADJUST GAS LEVEL TO BURNERS.			
21B	FRYER: PROVIDE 1/2" GAS SUPPLY DOWN TO 14" AFF THEN TRANSITION TO 1" WITH 90° ANGLE AND SHUT OFF VALVE. PROVIDE ALL REQUIRED FITTINGS AND INSTALL OWNER SUPPLIED QUICK DISCONNECT FLEXIBLE PIPE AND CONNECT TO UNITS WITH 90° ANGLE. SEE DETAIL 18 ON P-500			
23E	GRIDDLE: PROVIDE 1/2" GAS SUPPLY DOWN TO 20" AFF WITH EASILY ACCESSIBLE SHUT-OFF VALVE. PROVIDE ALL REQUIRED FITTINGS. CONNECT TO UNIT WITH OWNER SUPPLIED QUICK DISCONNECT (3/4"x48", 1) SWIVEL KIT)			
25A	RICE COOKER: PROVIDE 3/4" GAS SUPPLY AT 30", AND 1/2" GAS SUPPLY AT 10" AFF WITH SHUT OFF VALVES, ONE FOR EACH UNIT. PROVIDE ALL REQUIRED FITTINGS AND INSTALL OWNER SUPPLIED QUICK DISCONNECT FLEXIBLE PIPE AND CONNECT TO UNITS.			
31	WALK-IN COOLER: PROVIDE 1" COPPER PIPE IW FROM DRAIN PAN ON EACH UNIT TO FLOOR DRAIN WITH P TRAP AND 1" AIR GAP. MOUNT ALL PIPES WITHIN WALK-IN BOX WITH 1" HOLD-OFF SUPPORTS.			
32	WALK-IN FREEZER: PROVIDE 1" COPPER PIPE IW FROM DRAIN PAN ON EACH UNIT TO FLOOR DRAIN WITH P TRAP AND 1" AIR GAP. MOUNT ALL PIPES WITHIN WALK-IN BOX WITH 1" HOLD-OFF SUPPORTS. PROVIDE HEAT TRACE REFER TO ELECTRICAL DRAWING.			
40A	POT SINK: PROVIDE 1/2" CW AND 1/2" HW AT 14" AFF AND 8" OC WITH BVS & CV, CONNECT TO OWNER SUPPLIED FAUCET WITH COPPER PIPING. PROVIDE 2" COPPER PIPE IW (MANIFOLD ALL COMPARTMENT DRAINS INTO ONE LINE) TO FS WITH 2" AIR GAP, OR, IF REQUIRED BY LOCAL CODE, INSTALL 2" COPPER PIPE DIRECTLY TO SEWER SYSTEM. INSTALL OWNER SUPPLIED LEVER DRAIN STOPS. SEE DETAIL 7 ON SHEET P-500.			
41B	SINGLE BOWL PREP SINK: PROVIDE 1/2" CW AND 1/2" HW AT 14" AFF AND 8" OC WITH BVS, CONNECT TO OWNER SUPPLIED FAUCETS WITH COPPER PIPING. PROVIDE 2" COPPER PIPE IW TO FS WITH 2" AIR GAP, OR, IF REQUIRED BY LOCAL CODE, INSTALL 2" COPPER PIPE DIRECTLY TO SEWER SYSTEM. INSTALL OWNER SUPPLIED LEVER DRAIN STOPS.			
41C				
45A	HAND SINK: PROVIDE 1/2" CW AND 1/2" HW AT 24" AFF AND 8" OC WITH CHROME-PLATED, 1/4 TURN BALL VALVES. CONNECT TO OWNER SUPPLIED FAUCETS WITH METAL FLEX PIPING. PROVIDE 2" DRAIN PIPE WITH P TRAP AND WALL MOUNTED CLEAN-OUT. ALL EXPOSED DRAIN PIPES AND FITTINGS TO BE CHROME PLATED, NOT P.V.C.			

PIPE MATERIAL SCHEDULE		
SERVICE	UNDERGROUND	ABOVE GROUND
COLD & HOT WATER	TYPE "K" OR "L" HARD DRAWN COPPER TUBE	PEX
SANITARY WASTE	*SCH. 40 PVC	*SCH. 40 PVC
SANITARY VENT	*SCH. 40 PVC	*SCH. 40 PVC
GAS	---	BLACK STEEL, SCHEDULE 40
INDIRECT DRAIN	---	HARD DRAWN COPPER TUBE TYPE "M"
*SCH. 40 PVC IS PREFERRED IF APPROVED BY AUTHORITY HAVING JURISDICTION. PROVIDE SCHEDULE 40 PVC FOR ALL WASTE VENT PIPING & FITTINGS.		

- PLUMBING KEY NOTES

 - SODA CONDUIT: PROVIDE 6" PVC CONDUIT BELOW FLOOR FROM THE SIDE OF SODA STORAGE RACK TO SODA DISPENSER PER DETAIL #4 ON SHEET P-500.
 - CONDENSATE: ROUTE SHARED CONDENSATE LINE THROUGH WALK-IN COOLER. DO NOT RUN THROUGH WALK-IN FREEZER. PROVIDE 1" INSULATED CONDENSATE DRAIN PIPE FROM THE EVAPORATIVE COIL DISCHARGE TO FLOOR SINK OR MOP SINK WITH AIR GAP OF TWICE PIPE DIAMETER. INSTALL AT MINIMUM 76" HEIGHT A.F.F. REFER TO DETAIL #2 ON SHEET P-500.
 - PROVIDE TRAP PRIMER FOR FLOOR SINK. SEE DETAIL 17/P-500.
 - RDL & ODL LINES ON, IN WALL, TERMINATE ODL THRU WALL AS CLOSE TO BOTTOM PLATE AS POSSIBLE, EXTEND 1/2" PAST EFIS, WATER PROOF SEAL ALL AROUND. TERMINATE RDL & ODL WITH 4" PVC LAMB'S TONGUE NOZZLE, COLOR ANTIQUE BRONZE, ARKMANN MODEL #PDN-4 (IF AVAILABLE TIE RD TO STORM SEWER UNDERGROUND)
 - COMBINATION WASTE/VENT
 - LAV. TAILPIECE WITH TRAP PRIMER, RUN 1/2" CW BELOW FLOOR TO FLOOR DRAIN, SEE DETAIL #9 ON PLAN P-500.
 - (AAV) STUDOR MINI-VENT AIR ADMITTANCE VALVE- INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - WYE WITH CLEANOUT ON TOP.

FIXTURE UNIT SCHEDULE						
ITEM	FIXTURE	QTY	WATER FU		SEWER FU	
			EACH	TOTAL	EACH	TOTAL
A	WATER CLOSET	2	5	10	4	8
B	LAVATORY	2	2	4	1	2
D D1	FLOOR DRAIN 3" TRAP	7	—	—	5	35
E E1	FLOOR SINK 3" TRAP	10	—	—	5	50
P1	MOP SINK	1	3	3	2	2
G	FLOOR DRAIN W/ FUNNEL 2" TRAP	1	—	—	3	3
L L1	HOSE BIBB	3	4	12	—	—
M	TRENCH DRAIN 3" TRAP	1	—	—	5	5
4F	FILTER SYSTEM	1	1	1	FS	—
9D	ICE TEA BREWER	2	1	2	FS	—
10J	400 LB ICE MACHINE	2	1	2	FS	—
20A	CHINESE RANGE	1	2	2	FS	—
20Q	CHINESE RANGE	1	2	2	FS	—
40A 40B	POT SINK (3 COMP.)	1	4	4	FS	—
41B 41C	PREP. SINK (1 COMP.)	2	4	8	FS	—
45A 46B	HAND SINK (WALL MOUNT)	3	2	6	1	3
TOTAL			54		108	

FIXTURE UNIT SUMMARY		TOTAL F.U.
SERVICE		
DOMESTIC WATER		54
SANITARY SEWER		108

SERVICE REQUIREMENTS		
SERVICE	SIZE MAIN	CAPACITY
DOMESTIC WATER	1-1/2 INCH	32 GPM
SANITARY SEWER	4 INCH	108 F.U.
FUEL GAS	3 INCH	2,439 CFH
FIRE PROTECTION	INCH	GPM

WATER PIPE SIZING CHART (COLD WATER) (OPC 2017)					
PIPE SIZE	GPM	VELOCITY FT/SEC	FIXTURE UNITS		F - VALVE
			F - TANK		
1/2"	2.5	3.5	2 F.U. @ psi	6.0	F.U. @ psi
3/4"	6.6	4.4	8 F.U. @ psi		F.U. @ psi
1"	13.4	5.2	19 F.U. @ psi		F.U. @ psi
1-1/4"	23.3	5.9	37 F.U. @ psi	6	F.U. @ psi
1-1/2"	36.7	6.6	74 F.U. @ psi	23	F.U. @ psi
2"	76.4	7.9	254 F.U. @ psi	132	F.U. @ psi

* DOMESTIC WATER BACKFLOW PREVENTER MODEL: "WILKINS"975XL SIZE 1-1/2"

** PRESSURE REGULATING VALVE MODEL: _N/A_ SIZE N/A

WATER PIPE SIZING CHART (HOT WATER) (OPC 2017)					
PIPE SIZE	GPM	VELOCITY FT/SEC	FIXTURE UNITS		F - VALVE
			F - TANK		
1/2"	2.5	3.5	2 F.U. @ psi		F.U. @ psi
3/4"	6.6	4.4	8 F.U. @ psi		F.U. @ psi
1"	13.2	5.0	19 F.U. @ psi		F.U. @ psi
1-1/4"	19.0	5.0	37 F.U. @ psi	6	F.U. @ psi

- NOTES:

 - REFER TO PIPING RISER DIAGRAM, SHEET P-400 FOR ALL PIPE SIZING NOT SHOWN ON FLOOR PLAN.
 - DO NOT RUN ANY PIPING HORIZONTAL IN WALL SPACE. REFER TO RISER DIAGRAM, SHEET P-400.
 - REFERENCE DETAILS 8/P-500 AND 12/P500 FOR FLOOR DRAIN, FLOOR SINK AND INDIRECT DRAIN CONNECTIONS.

