

CONTRACTOR SHALL COORDINATE EXACT PLUMBING FIXTURES WITH ARCHITECT AND OWNER. PLUMBING FIXTURES LISTED ON THIS DRAWING ARE FOR DESIGN INTENT ONLY.

PLUMBING LEGEND	
NOTE: ALL ABSEVATIONS, PPG, AND SYMBOLS MAY NOT APPLY TO THIS PROJECT	
ABSEVATIONS	
CW	COLD WATER
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
SS	SANITARY SEWER
T.P.	TRAP PRIMER
FCO	FLOOR CLEAN OUT
VTR	VENT THROUGH ROOF
ECO	EXTERIOR CLEAN OUT
WCO	WALL CLEAN OUT
GW	GREASE WASTE
UG	UNDERGROUND
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
PRW	PRIMARY RAIN WATER
SRW	SECONDARY RAIN WATER
ETR	EXISTING TO REMAIN
PPG	
————	COLD WATER LINE
————	HOT WATER LINE
————	SANITARY SEWER PIPE BELOW FLOOR GRADE
-----	VENT LINE
-----	HOT WATER RECIRC. LINE
-----	GREASE WASTE
-----	COLD WATER LINE UNDER SLAB
-----	HOT WATER LINE UNDER SLAB
-----	HOT WATER RECIRCULATION LINE UNDER SLAB
-----	STORM PIPING
-----	SEWER/WASTE PIPING ABOVE FLOOR
-----	EXISTING COLD WATER LINE
-----	EXISTING HOT WATER LINE
-----	EXISTING SANITARY SEWER PIPE BELOW FLOOR GRADE
SYMBOLS	
—	CLEAN OUT PIPE CAP
—	FLOOR/EXTERIOR CLEAN OUT
—	WALL CLEAN OUT
—	PIPE TURN UP
—	PIPE TURN DOWN
—	BALANCE VALVE - CIRCUIT SETTER
—	SHUT OFF VALVE
—	PIPE SIZE REDUCTION
—	CONNECTION TO EXISTING

WATER HAMMER ARRESTOR SCHEDULE	
P-A	Zum Z-1700 series, #100, PDI size A (11 lb) 3/4 in.
P-B	Zum Z-1700 series, #200, PDI size B (32 lb) 1 in.
P-C	Zum Z-1700 series, #300, PDI size C (60 lb) 1 in.
P-D	Zum Z-1700 series, #400, PDI size D (113 lb) 1 in.
P-E	Zum Z-1700 series, #500, PDI size E (154 lb) 1 in.
P-F	Zum Z-1700 series, #600, PDI size F (230 lb) 1 in.

PLUMBING SPECIFICATIONS

- ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE AND ALL LOCAL PLUMBING CODES. CONTRACTOR SHALL PAY FOR FEES AND PERMITS.
- ALL WASTE AND VENT PIPING SHALL BE SCHEDULE 40 PVC WITH CEMENT JOINTS.
 - SLOPE WASTE PIPING 3" AND SMALLER AT 1/4" PER FOOT.
 - SLOPE WASTE PIPING 4" AND LARGER AT 1/8" PER FOOT.
- PROVIDE CLEANOUTS WHERE NOTED. FLOOR CLEANOUT TYPE IS TO MATCH FINISHED FLOOR MATERIAL APPLICATION. FLOOR CLEANOUT FINISH TO BE POLISHED BRONZE. WALL CLEANOUT FINISH TO BE CHROME.
- ALL DOMESTIC WATER PIPING SHALL BE TYPE "L" COPPER WITH LEAD FREE SOLDER JOINTS. INSULATION SHALL BE PRE MOULDED, 4 lb DENSITY REINFORCED FIBERGLASS WITH ALL SERVICE JACKET CONSISTING OF WHITE KRAFT PAPER AND ALUMINUM FOL VAPOR BARRIER. INSULATE COLD WATER PIPING WITH 1/2" FIBERGLASS AND HOT WATER PIPING WITH 1" FIBERGLASS.
- ALL JOINTS BETWEEN STEEL AND COPPER PIPING SHALL BE MADE WITH BRASS FITTINGS OR UNIONS. ISOLATE ALL COPPER FROM STEEL SUPPORTS WITH PLASTIC SEPARATORS DESIGNED FOR PIPE ISOLATION.
- PIPE HANGERS FOR ALL PIPING (INCLUDING FIRE PROTECTION) SHALL BE ORINELL OR EQUAL WITH HANGER TYPE MATCHING THE SYSTEM REQUIREMENT. MAXIMUM ALLOWABLE SPACING SHALL BE AS FOLLOWS:
 - 3/4" TO 1 1/4" DIA. ——— 3 FT. O.C. SPACING
 - 1 1/2" TO 2 1/2" DIA. ——— 4 FT. O.C. SPACING
 - 3" DIA. ——— 12 FT. O.C. SPACING
 - 4" TO 6" DIA. ——— 14 FT. O.C. SPACING
- ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR.
- STORM WASTE PIPING TO BE CAST IRON WITH NO JUNCTS. INSULATE ALL HORIZONTAL RAIN WATER LEADERS AS WELL AS EXISTING ROOF DRAIN BODIES. INSULATION SHALL BE PRE MOULDED, 4 lb DENSITY REINFORCED FIBERGLASS WITH ALL SERVICE JACKET CONSISTING OF WHITE KRAFT PAPER AND ALUMINUM FOL VAPOR BARRIER. INSULATION SHALL BE 1" FIBERGLASS.
- PX PIPING CONFORMING TO ASTM F877 IS AN ACCEPTABLE SUBSTITUTE FOR DOMESTIC WATER PIPING. CIRCULATED DOMESTIC HOT WATER AND HOT WATER RECIRCULATION PIPING SHALL BE INSULATED WITH 1" ARMAFLEX INSULATION. NONCIRCULATING HOT WATER SYSTEMS SHALL HAVE HOT WATER PIPING INSULATED WITH 1/2" ARMAFLEX INSULATION. DOMESTIC COLD WATER PIPING SHALL BE INSULATED WITH 1/2" ARMAFLEX INSULATION.

PLUMBING FIXTURE CONNECTION SCHEDULE (UNLESS OTHERWISE NOTED)						
UNIT NO.	P-7.8	P-30.30.31	P-46.47.48.49	P-50	P-81	P-95
DESCRIPTION	WATER CLOSET	SINK	SHOWER	DRAIN	WASHER BOX	ICE BOX
COLD WATER	1/2"	1/2"	1/2"	1/2" T.P.	1/2"	1/2"
HOT WATER		1/2"	1/2"	-	1/2"	-
WASTE		2"	2"	4"	3"	-
VENT			1-1/2"	2"	2"	-

P-7: WATER CLOSET (PUBLIC, FLUSH TANK) **TOTO Drake II, 2.8 gal. flush, vit. cotton, elong, floor mtd. Centoco 500CCSS white elongated open front seatwith check hinge. Two 5/16 in. closet bolts, nuts, washers and bolt caps. No seep bowl wax. One Zum Z-8804 CR 1/2 in. nom x 3/8 in. flex riser, wheel handle stop.
P-8: WATER CLOSET (A.D.A., FLUSH TANK.) **TOTO Drake II, 2.8 gal. flush, vit. cotton, elong, floor mtd. Centoco 500CCSS white elongated open front seatwith check hinge. Two 5/16 in. closet bolts, nuts, washers and bolt caps. No seep bowl wax. One Zum Z-8804 CR 1/2 in. nom x 3/8 in. flex riser, wheel handle stop.
P-22: LAVATORY (DROP-IN RECTANGLE) Wilsonart AV1812, designer white, 19.5 in. x 14.5 in., 7 in. deep ProFlo PFWSC8851CP Single control faucet, chrome, single hole, 1.2 gpm aerator. Two Zum Z-8804 LR 1/2 in. nom x 3/8 in. flex riser, wheel handle stop. One Zum Z-8743 grid drain with 1-1/4 in. tailpiece. One Zum Z-8700-8, 1-1/4 in. semi cast brass P-trap, escutcheon. Leonard mixing valve assembly Model # 170 or equal, ASSE 1070 rated. Maximum set point on mixing valve to be 110 deg F.
P-23: LAVATORY (DROP-IN RECTANGLE, ADA) Wilsonart AV1812, designer white, 19.5 in. x 14.5 in., 7 in. deep ProFlo PFWSC8851CP Single control faucet, chrome, single hole, 1.2 gpm aerator. Two Zum Z-8804 LR 1/2 in. nom x 3/8 in. flex riser, wheel handle stop. One Zum Z-8746, 1-1/4 in. grid drain, tailpiece, offset wheelchair. One Zum Z-8700-8, 1-1/4 in. semi cast brass P-trap, escutcheon. Truetro Handi Lav guard model #102W, #105W accessory for hot, cold and waste. Leonard mixing valve assembly Model # 170 or equal, ASSE 1070 rated. Maximum set point on mixing valve to be 110 deg F.
P-30: SINK (UNDERMOUNT, SINGLE COMPARTMENT, S.S.) PROFLO PFUC301A, 23.5 in. x 17.75 in., 8 in. deep, 18 ga. S.S. **Plaster LGS34 LPMB Single Handle Pull out sprayer, 1.8 gpm. One Zum Z-8740 basket drain with 1-1/2 in. tailpiece. One Zum Z-8702-9, 1-1/2 in. semi cast brass P-trap, escutcheon. Two Zum Z-8804 LR 1/2 in. nom x 3/8 in. flex riser, wheel handle stop. Leonard mixing valve assembly Model # 170 or equal, ASSE 1070 rated. Maximum set point on mixing valve to be 110 deg F. Provide 1/3 HP, continuous feed, 120V food disposal, In-Sink-Erator Badger 1.
P-31: SINK (UNDERMOUNT, ADA SINGLE COMPARTMENT) **Elkay ELRAD251654, 23.5x17.75 in., 18 ga. S.S. **Plaster LGS34 LPMB Single Handle Pull out sprayer, 1.8 gpm. One Zum Z-8740 basket drain with 1-1/2 in. tailpiece. One Zum Z-8702-9, 1-1/2 in. semi cast brass P-trap, escutcheon. Two Zum Z-8804 LR 1/2 in. nom x 3/8 in. flex riser, wheel handle stop. Leonard mixing valve assembly Model # 170 or equal, ASSE 1070 rated. Maximum set point on mixing valve to be 110 deg F. Provide 1/3 HP, continuous feed, 120V food disposal, In-Sink-Erator Badger 1.
P-32: SHOWER (FIBERGLASS, SHORT) Moen Marble shower pan with center drain Moen MT2473EPBL, single handle, shower only trim kit. Valve to be mounted 38 to 48 inches above shower floor. Mount slide bar at centerline of seat. J.R. Smith 2030 A-CP, 2 inch chrome top floor drain w/ deep trap.
P-47: SHOWER (FIBERGLASS, LONG) **Mincroy Marble shower pan with center drain **Moen MT2473EPBL, single handle, shower only trim kit. Valve to be mounted 38 to 48 inches above shower floor. Mount slide bar at centerline of seat. J.R. Smith 2030 A-CP, 2 inch chrome top floor drain w/ deep trap.
P-48: SHOWER/TUB (A.D.A., FIBERGLASS) **Aqualic Bath XXXXX **Moen MT2473EPBL, single handle, trim kit. Valve to be mounted 38 to 48 inches above shower floor. Mount slide bar at centerline of seat. J.R. Smith 2030 A-CP, 2 inch chrome top floor drain w/ deep trap.
P-49: SHOWER/TUB (FIBERGLASS) **Aqualic Bath XXXXX **Moen MT2473EPBL, single handle, trim kit. Delta RP393 bath waste assembly, provide P-trap.
P-50: FLOOR DRAIN (REGULAR) Zum ZN-415, MiLab F1100 cast iron, sediment bucket, adjustable type "B"strainer. Polished nickel bronze top, 1/2 inch trap primer(plug if not used).
P-81: WASHING MACHINE SUPPLY & DRAIN, PLASTIC BOX Oatey #38894, white polystyrene box, faceplate, 2 in. drain, single dual valves. Mount 42 inches A.F.F. to bottom of box.
P-95: ICEMAKER CONNECTION METAL BOX Oatey #38689, metal box, with 1/4 turn valve. Mount 18 inches A.F.F. to bottom of box.

ELECTRIC WATER HEATER SCHEDULE		
UNIT NO.	WH-1	WH-2
MANUFACTURER	LOCHINVAR	LOCHINVAR
MODEL #	ESX040	ESX050
UPPER/LOWER K.W.	4.5	6.0
VOLTAGE	208/1/60	208/1/60
STORAGE GALS.	40	50
TANK DIA. INCHES	24"	26-1/2"
TANK HEIGHT INCHES	32-1/4"	32-1/4"
ACCESSORIES**		
P.T. RELIEF VALVE	YES	YES
THERMOSTAT	YES	YES
HEAT TRAPS	YES	YES
SMULTANEOUS OPERATION	NO	NO

FIRE PUMP SCHEDULE	
UNIT NO.	FP-1
MANUFACTURER	XYLEM
MODEL #	1580
EMERGENCY POWER	NO
FIRE PUMP**	
G.P.M.	750
T.D.H. - PSI	80
H.P.	50
TYPE	INLINE
VOLTAGE	208/3/60
R.P.M.	3,550
CONTROL PANEL**	
MANUFACTURER	FIRETROL
MODEL	FTA1930
UL/FM RATED	YES
DISCONNECT SWITCH	YES
INTEGRAL AUTOMATIC TRANSFER SWITCH	YES
SOFT START CONTROL	YES

(1) JOCKEY PUMP TO BE PROVIDED WITH FT8560 FX PUMP CONTROLLER

ELEVATOR SUMP PUMP SCHEDULE	
UNIT NO.	ESP-1
MANUFACTURER	ZOELLER
MODEL #	N153
TYPE	SUBMERSIBLE
SERVICE	ELEVATOR SHAFT
G.P.M.	50
T.D.H. FT. H2O	25
H.P.	1/2
VOLTAGE	120/1/60
ACCESSORIES**	
AUTOMATIC FLOAT SWITCH	YES
SOLIDS HANDLING SIZE	1/2"
OIL DETECTION SHUT-OFF (1)	YES
CONTROL PANEL (2)	YES

NOTE 1: UNIT SHALL SOUND AUDIBLE ALARM AND SHUT DOWN
 2: PROVIDE SUMP CONTROL PANEL SIMILAR TO ZOELLER OIL SMART SYSTEM, WITH PUMP HAND OFF AUTO SWITCH. PROVIDE REMOTE MONITORING DRY CONTACTS FOR OIL DETECTION, WATER, AND HIGH LIQUID. MOUNT CONTROL PANEL IN ELEVATOR EQUIPMENT ROOM.

DOMESTIC WATER BOOSTER PUMP SCHEDULE	
UNIT NO.	BP-1
MANUFACTURER (1)	HYFAB
MODEL #	MVP-850
NO. OF PUMPS	2
MATERIAL	STAINLESS STEEL
SUCTION CONNECTION (IN)	4"
DISCHARGE CONNECTION (IN)	4"
PUMP NO. 1**	
TYPE	END SUCTION
G.P.M.	125
T.D.H. - PSI	35
H.P.	5
VOLTAGE	208/3/60
RPM	3,500
VFD	YES
PUMP NO. 2**	
TYPE	END SUCTION
G.P.M.	125
T.D.H. - PSI	35
H.P.	5
VOLTAGE	208/3/60
RPM	3,500
VFD (5)	YES
ACCESSORIES**	
STARTER CONTROL PANEL	YES
LOW SUCTION ALARM	YES
SINGLE POINT POWER	YES
INTEGRAL CHECK VALVES	YES
STAINLESS STEEL	YES
FLANGE ADAPTERS (2)	YES
EASY CONNECT END CAP (3)	YES
HYDRO PNEUMATIC TANK (4)	YES

NOTE
 1. ACCEPTABLE MANUFACTURERS: CANARIS, LIBERTY PUMPS.
 2. HYFAB MODEL: MVP-FX-4
 3. HYFAB MODEL: MVP-TC-4
 4. HYFAB MODEL: FX-60V.
 5. CONTRACTOR SHALL INTEGRATE VFD INTO BUILDING AUTOMATION SYSTEM. PROVIDE ALL NECESSARY CONTROL WIRING, GRAPHICS, CONTROLLERS, ETC. FOR INTEGRATION. PRESSURE SENSOR CONTROLLING PUMP VFD SHALL BE INTEGRATED INTO BAS WITH SET POINT ADJUSTMENT CAPABILITY.

PUMP UPON DETECTION OF OIL. MOUNT ALARM IN ELEVATOR EQUIPMENT ROOM.

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PROJECT NO. 2019-001
 DATE: 20/01/16
 DRAWN BY: [Name]
 CHECKED BY: [Name]

CLIENT NAME
ROCKLEDGE MULTI-FAMILY
 720 Baron Boulevard
 Rockledge, FL 32955

SHEET TITLE
PLUMBING SPECS, LEGEND, & SCHEDULES

Revision Schedule	
No.	Description

PROJECT NO.	0540-150010
DATE	20/01/16
DRAWN BY	[Name]
CHECKED BY	[Name]

P001

GMP PRICING SET