

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 1/8" AND SMALLER AT 1/8" PER FOOT. SLOPE WASTE PIPING 1/4" 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-MOLDED, 4 lb DENSITY REINFORCED FIBERGLASS WITH AL SERVICE JACKET CONSISTING OF WHITE KRAFT PAPER AND ALUMINUM FOL VAPOR BARRIER. INSULATE COLD WATER PIPING WITH 1" 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 SPINNELL OR EQUAL WITH HANGER TYPE MATCHING THE SYSTEM REQUIREMENT. MAXIMUM ALLOWABLE SPACING SHALL BE AS FOLLOWS:
 3/4" TO 1 1/2" DIA. ----- 6 FT. O.C. SPACING
 1 1/2" TO 2 1/2" DIA. ----- 10 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-HUB JOINTS. INSULATE ALL HORIZONTAL RAIN WATER LEADERS AS WELL AS EXISTING ROOF DRAIN BODIES. INSULATION SHALL BE PRE-MOLDED, 4 lb. DENSITY REINFORCED FIBERGLASS WITH AL SERVICE JACKET CONSISTING OF WHITE KRAFT PAPER AND ALUMINUM FOL VAPOR BARRIER. INSULATION SHALL BE 1" FIBERGLASS.
- PEX 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" ARAMAFLEX INSULATION. NONCIRCULATING HOT WATER SYSTEMS SHALL HAVE HOT WATER PIPING INSULATED WITH 1/2" ARAMAFLEX INSULATION. DOMESTIC COLD WATER PIPING SHALL BE INSULATED WITH 1/2" ARAMAFLEX INSULATION.

UNIT NO.	P-71	P-83.30	P-46,47,48,49	P-50	P-61.65	P-81	P-95
DESCRIPTION	WATER CLOSET	WATER CLOSET	SHOWER	DRAIN		WASHER BOX	ICE BOX
COLD WATER	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
HOT WATER	1/2"	1/2"	1/2"	-	1/2"	-	-
WASTE	4"	2"	2"	4"	3"	-	-
VENT	2"	1-1/2"	1-1/2"	2"	2"	-	-

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
AFB	ABOVE FINISHED FLOOR
BFB	BELOW FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
PRW	PRIMARY RAIN WATER
SRW	SECONDARY RAIN WATER
ETR	EXISTING TO REMAIN

>>> NG

—————	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
—X—	BALANCE VALVE - CIRCUIT SETTER
—H—	SHUT OFF VALVE
—▶—	PIPE SIZE REDUCTION
—●—	CONNECTION TO EXISTING

P-A	Zum Z-1700 series, #100, PDI size A (1 1/2" x 3/4")
P-B	Zum Z-1700 series, #200, PDI size B (2" x 1 1/4")
P-C	Zum Z-1700 series, #300, PDI size C (2 1/2" x 1 1/4")
P-D	Zum Z-1700 series, #400, PDI size D (3" x 1 1/4")
P-E	Zum Z-1700 series, #500, PDI size E (3 1/2" x 1 1/4")
P-F	Zum Z-1700 series, #600, PDI size F (3 3/4" x 1 1/4")

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

P-7: WATER CLOSET (PUBLIC, FLUSH TANK)
**TOTO Drake II, 2.8 gal. flush, vit. cotton, elong. floor mtd. Centoc 500CCSS white elongated open front seat with check hinge. Two 5/16 in. closet bolts, nuts, washers and ball 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. Centoc 500CCSS white elongated open front seat with check hinge. Two 5/16 in. closet bolts, nuts, washers and ball 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. TruBro Hand 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. **Plester LG534 L.P.M.B 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 model # 1.
P-31: SINK (UNDERMOUNT, ADA, SINGLE COMPARTMENT, S.S.)
**Plester LG534 L.P.M.B Single Handle Pull-out sprayer, 1.8 gpm. One Zum Z-8740 basket drain with 1-1/2 in. tailpiece. One Zum Z-8700-8, 1-1/4 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-46: SHOWER (FIBERGLASS, SHORT)
**Mincey Marble shower pan with center drain **Moon 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)
**Mincey Marble shower pan with center drain **Moon 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 **Moon 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 **Moon MT2473EPBL, single handle, trim kit. Delta RP303 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-61: WALL HYDRANT (NON-FREEZE)
Zum Z-1310, Milab HY-1000 series, non-freeze, integral vacuum breaker. S.S. face. Mounting height 18 in. center line of hydrant to finished grade.
P-65: ROOF HYDRANT (NON-FREEZE)
Woodford RH1Y1-MS, 3/4 in. Hose nozzle, non-freeze, with roof mounting system.
P-81: WASHING MACHINE SUPPLY & DRAIN, PLASTIC BOX
Oatley #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
Oatley #38889, metal box, with 1/4 turn valve. Mount 18 inches A.F.F. to bottom of box.

UNIT NO.	WH-1	WH-2
MANUFACTURER	LOCHINVAR	LOCHINVAR
MODEL #	ESX040	ESX050
UPPER/LOWER K.W.	4.5	6.0
VOLTAGE	208/160	208/160
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
SIMULTANEOUS OPERATION	NO	NO

UNIT NO.	FP-1
MANUFACTURER	FR
MODEL #	150
EMERGENCY POWER	NO
FIRE PUMP**	
G.P.M.	350
T.D.H. - PSI	80
TYPE	INLINE
VOLTAGE	208/360
R.P.M.	3,550
SIZE	6 x 6 x 9.5F-L
KEY RATIO** (1)	
MANUFACTURER	XYLEM
MODEL #	3SV-09
G.P.M.	10
T.D.H. - PSI	100
H.P.	2
TYPE	INLINE
VOLTAGE	208/360
R.P.M.	3,500
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 FTAS60 NO PUMP CONTROLLER

UNIT NO.	ESP-1
MANUFACTURER	ZOELLER
MODEL #	N153
TYPE	SUMMERSIBLE
SERVICE	ELEVATOR SHAFT
G.P.M.	50
T.D.H. FT. H2O	25
H.P.	1/2
VOLTAGE	120/160
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.

UNIT NO.	BP-1
MANUFACTURER (1)	HYFAB
MODEL #	MVP-850
NO. OF PUMPS	2
MATERIAL	STAINLESS STEEL
SUCTION CONNECTION (IN)	
DISCHARGE CONNECTION (IN)	4"
PUMP NO. 1**	
TYPE	ELECTRIC
G.P.M.	125
T.D.H. - PSI	35
H.P.	5
VOLTAGE	208/360
RFM	3,500
VFD	YES
PUMP NO. 2**	
TYPE	END SUCTION
G.P.M.	125
T.D.H. - PSI	35
H.P.	5
VOLTAGE	208/360
RFM	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: CANARIIS, LIBERTY PUMPS.
2. HYFAB MODEL: MVP-FK-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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CLIENT NAME
ROCKLEDGE MULTI-FAMILY
220 Baron Boulevard
Rockledge, FL 32955

PROJECT TITLE
PLUMBING SPECS & LEGEND

Revision Schedule	Date
No.	Description

PROJECT NO. 0540150010
DATE 20/04/07
DRAWN
CHECKED
DATE

P001

GMP PRICING SET