

**FIRE PROTECTION SPRINKLER SYSTEM NOTES**

SPRINKLER CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS NECESSARY TO PROVIDE A COMPLETE AND CODE ACCEPTABLE SPRINKLER SYSTEM FOR THE FACILITY IN PROJECT SCOPE.

SPRINKLER SYSTEM DESIGN TO MEET NFPA 13 AND SHALL BE HYDRAULICALLY CALCULATED USING THE CRITERIA LISTED BELOW AND ANY LOCAL OR STATE CODE REQUIREMENTS. PROVIDE SPRINKLER SYSTEM ZONING, WITH ISOLATION VALVING, FLOW SWITCH, ETC.

- SPACES SUCH AS CORRIDORS, OFFICES, ETC. SHALL BE HYDRAULICALLY CALCULATED TO PRODUCE 10 GPM OVER THE MOST REMOTE 1500 SQUARE FEET. HEAD COVERAGE SHALL BE 225 SQUARE FEET/HEAD MAXIMUM.
- ORDINARY HAZARD GROUP 1 AREAS (OH1) SHALL BE HYDRAULICALLY CALCULATED TO PRODUCE 15 GPM OVER THE MOST REMOTE 1500 SQUARE FEET. HEAD COVERAGE SHALL BE 150 SQUARE FEET/HEAD MAXIMUM. SPRINKLER HEADS CAN HAVE A K-FACTOR TO 5.8 OR 8.0.
- ORDINARY HAZARD GROUP 2 AREAS (OH2) SHALL BE HYDRAULICALLY CALCULATED TO PRODUCE 20 GPM OVER THE MOST REMOTE 1500 SQUARE FEET. HEAD COVERAGE SHALL BE 150 SQUARE FEET/HEAD MAXIMUM USING 28FP HEADS. SPRINKLER HEADS CAN HAVE A K-FACTOR TO 5.8 OR 8.0.
- HEADS TO BE QUICK RESPONSE TYPE IN ALL LIGHT HAZARD AREAS PER NFPA 13 AND 101. HEADS IN LAY IN CEILING ARE TO BE RECESSED TYPE. HEADS IN OYRBOARD CEILING ARE TO BE FULLY CONCEALED. HEAD FINISHES ARE TO BE WHITE.
- ALL SHUT OFF VALVES IN THE SYSTEM MUST BE OF AN INDICATING TYPE AND MUST BE MONITORED BY MEANS OF A TAMPER SWITCH. SEE ELECTRICAL.
- FLOW SWITCHES SHALL BE INTERLOCKED WITH THE BUILDING FIRE ALARM SYSTEM AND ANNUNCIATED ON THE ANNUNCIATOR PANEL. SEE ELECTRICAL.
- SHOP DRAWINGS AND HYDRAULIC CALCULATIONS MUST BE SUBMITTED TO THE ENGINEER'S OFFICE, OWNERS, INSURANCE UNDERWRITER, AND OTHER LOCAL AUTHORITIES HAVING JURISDICTION FOR APPROVAL BEFORE WORK BEGINS. SPRINKLER DESIGN MUST BE BY A NICET FLOOR PROFESSIONAL ENGINEER LICENSED IN TN.
- SPRINKLER PIPING SHALL BE COORDINATED WITH DUCTWORK, CONDUIT, LIGHTS, PLUMBING PIPING AND ALL OTHER RELATED TRADES TO INSURE ALL INTERFERENCES HAVE BEEN RESOLVED BEFORE INSTALLING PIPING.
- PROVIDE A MINIMUM OF 18 INCHES CLEARANCE BETWEEN BOTTOM OF AUTOMATIC SPRINKLER DEFLECTOR AND TOP OF STORAGE, FILES, SHELVING, ETC.
- SPRINKLER CONTRACTOR TO OBTAIN CURRENT FLOW TEST DATA FOR HYDRAULIC CALCULATIONS.
- PROVIDE WIRE GUARD SHIELDS OVER SPRINKLER HEADS IN ELECTRIC, STORAGE, MECHANICAL, TELEPHONE AND JANITORS ROOMS AND OTHER SIMILAR SPACES WHERE HEADS ARE SUBJECT TO MECHANICAL DAMAGE.
- ALL SPRINKLER PIPING TO SLOPE TOWARDS MAIN DRAIN AT RISER TO ALLOW FOR ADEQUATE DRAINAGE OF THE SYSTEM.
- PIPE MATERIAL SHALL BE SCH 40 BLACK STEEL MANUFACTURED IN THE UNITED STATES. VICTAULIC MECHANICAL JOINTS ARE ACCEPTABLE.
- SEE DIVISION 15 SPECIFICATIONS ON M8.1 THROUGH M8.9 FOR ANY ADDITIONAL INFORMATION.
- ALL SYSTEM GAUGES AND VALVES MUST BE ACCESSIBLE FOR INSPECTION AND MAINTENANCE.

**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 CLEANOUPS WHERE NOTED. FLOOR CLEANOUP TYPE IS TO MATCH FINISHED FLOOR MATERIAL APPLICATION. FLOOR CLEANOUP FINISH TO BE POLISHED BRONZE. WALL CLEANOUP 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 ALL 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 DRINKNELL OR EQUAL WITH HANGER TYPE MATCHING THE SYSTEM REQUIREMENT. MAXIMUM ALLOWABLE SPACING SHALL BE AS FOLLOWS:
  - 3/8" TO 1 1/4" 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 ALL 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" ARMAFLEX INSULATION. NON-CIRCULATING 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-8	P-13	P-47	P-50	P-61,65	P-74	P-95
DESCRIPTION	WATER CLOSET	LAV/SINK	SERVICE SINK	DRAIN		DRINK FOUNT.	ICE BOX
COLD WATER	1/2"	1/2"	1/2"	1/2" T.P.		1/2"	1/2"
HOT WATER			1/2"				
WASTE	4"	2"	2"	4"		2"	
VENT	2"	1-1/2"	3"	2"		1-1/2"	

**PLUMBING LEGEND**

NOTE: ALL ABBREVIATIONS, SYMBOLS, AND SYMBOLS MAY NOT APPLY TO THIS PROJECT

ABBREVIATIONS	DESCRIPTION
CW	COLD WATER
HW	HOT WATER
HW/R	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

SYMBOLS	DESCRIPTION
—	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	DESCRIPTION
—	CLEAN OUT/PIPE CAP
—	FLOOR/EXTERIOR CLEAN OUT
—	WALL CLEAN OUT
—	PIPE TURN UP
—	PIPE TURN DOWN
X-1	BALANCE VALVE - CIRCUIT SETTER
⊘-1	SHUT OFF VALVE
▶	PIPE SIZE REDUCTION
⊕	CONNECTION TO EXISTING

**WATER HAMMER ARRESTOR SCHEDULE**

P-A	Zum Z-1700 series, #100, PDI size G (11 lb)
P-B	Zum Z-1700 series, #200, PDI size B (5 lb) 1 in.
P-C	Zum Z-1700 series, #300, PDI size C (6 lb) 1 in.
P-D	Zum Z-1700 series, #400, PDI size D (13 lb) 1 in.
P-E	Zum Z-1700 series, #500, PDI size E (15 lb) 1 in.
P-F	Zum Z-1700 series, #600, PDI size F (33 lb) 1 in.

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

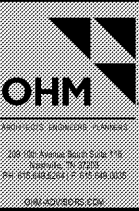
<b>P-8: WATER CLOSET (A.D.A., FLUSH TANK.)</b>
**TOTO Drake II, 1.28 gal. flush, Cotton, elong floor mttd.
Cenisco 500CCSS white elongated open front seat with check hinge.
Two 5/16 in. close bolts, nuts, washers and bolt caps. No seep bowl wax.
One Zum Z-6804-CR 1/2 in. nom x 3/8 in. flex riser, wheel handle stop.
<b>P-21: LAVATORY (A.D.A., WALL HUNG)</b>
Duravit Stark 3 D0305600000, Alpine White, 21 - 1/2" x 25-5/8".
Moen Algh 6190BL, Black, 1.2 gpm aerator.
Two Zum Z-6804-LR 1/2 in. nom x 3/8 in. flex riser, wheel handle stop.
One Zum Z-6746, 1-1/4 in. grid drain, tailpiece, offset wheelchair.
One Zum Z-6700-8, 1-1/4 in. semi cast brass P-trap, escutcheon.
Mount rim maximum 34 in. above finished floor.
Minimum clearance, floor to bottom front apron, 29 in.
Triastro Hand Lay guard model #1029V, #105W accessory for hot, cold and waste.
Zum Z-1231, Mitab MC-41, concealed arm carrier.
Leonard mixing valve assembly Model # 170 or equal. ASSE 1070 rated.
Maximum set point on mixing valve to be 110 deg F.
<b>P-30: SINK (SINGLE COMPARTMENT, UNDERMOUNT)</b>
Elkay Classic, ELG1616BK0, 15 3/4x15 3/4x8, 20 ga. Black, self-rim sink.
Mirabelle MIFXCRA101MMB, Single Handle Pull Down, 1.8 gpm.
Kohler K1995 Soap Dispenser, black.
One Zum Z-6740 basket drain with 1-1/2 in. tailpiece.
One Zum Z-6702-9, 1-1/2 in. semi cast brass P-trap, escutcheon.
Two Zum Z-6804-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.
<b>P-47: SERVICE SINK (FLOOR BASIN)</b>
ProFlo Mop Basin PFM2424S, 25in. x 24in. x 10in., white composite basin, SS Drain Body, SS Strainer.
ProFlo PF1119 service sink faucet, elevated vacuum breaker, hose spout.
Mount center line of faucet 36" A.F.F.
<b>P-50: FLOOR DRAIN (HORIZONTAL)</b>
Zum ZN-415, Mitab P1119 cast iron, self-adjusting, 1/2" diameter.
*B-strainer, polished nickel chrome top, 1/2 inch diameter plug if not used.
<b>P-61: WALL HYDRANT (NON-FREEZE)</b>
Z-1310, Mitab #100 series, non-freeze, integral vacuum breaker, 5/8" mounting hole, center line of hydrant to finished grade.
<b>P-65: FLOOR HYDRANT (NON-FREEZE)</b>
Woodford RH1119 3/4 in. hose nozzle, non-freeze, with roof mounting system.
<b>P-74: BI-LEVEL ELECTRIC WATER COOLER (WALL MTD, A.D.A.)</b>
Elkay EHW617C, dual bi-level, S.S., drinking fountain system.
Two Zum Z-6700, 1-1/4 in. semi cast brass P-traps, escutcheon.
Two Zum Z-6804-LR 1/2 in. nom x 3/8 in. flex riser, wheel handle stop.
Spout outlets shall be a maximum of 36 in. above finished floor.
Minimum clearance, floor to bottom front apron, 27 in.
<b>P-95: ICEMAKER CONNECTION METAL BOX</b>
Oatey #38689, metal box, with 1/4 turn valve.
Mount 18 inches A.F.F. to bottom of box.

**WALL HUNG ELECTRIC WATER HEATER SCHEDULE**

UNIT NO.	WH-1
MANUFACTURER	LOCHINVAR
MODEL #	JR040
K.W.	4.5
VOLTAGE	208/160
STORAGE GALS.	40
TANK DIA.-INCHES	23"
TANK HEIGHT INCHES	32"
ACCESSORIES*	
P.T. RELIEF VALVE	YES
THERMOSTAT	YES
HEAT TRAPS	YES
HANGING SHELF	YES

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PROJECT NAME: **ROCKLEDGE FLATS - BUILDING C**  
220 Baron Boulevard  
Rockledge, FL 32955

CLIENT NAME: **HUTTON DEVELOPMENT**

SHEET TITLE: **Plumbing Schedules, Specs, & Legend**

DATE: **NOV 15, 2019**

Revision Schedule	
No.	Description

Revision Schedule	
No.	Description

PROJECT NO.	0540150010
DATE	20/04/19
DRAWN	
CHECKED	

P001

GMP PRICING SET