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PLOT DATE: 12/13/2021 8:19 AM

PLUMBING ABBREVIATIONS

AD AREA DRAIN
ASR AUTOMATIC SPRINKLER RISER
BFS BELOW FLOOR SLAB
BWV BACK WATER VALVE
CB CATCH BASIN
CI CAST IRON
CO CLEAN OUT
CV CONTROL VALVE
DF DRINKING FOUNTAIN
DIA DIAMETER
DN DOWN
DWH DOMESTIC WATER HEATER
E.T.C. ELECTRICAL TRADES CONTRACTOR
EWC ELECTRIC WATER COOLER
EXIST EXISTING
FD FLOOR DRAIN
FC FINAL CONNECTIONS
FDC FIRE DEPT. CONNECTION
FF FINISH FLOOR
FHV FIRE HOSE VALVE
FT FEET
GAL GALLON
GD GARBAGE DISPOSAL
GI GREASE INTERCEPTOR
GPH GALLONS PER HOUR
GPM GALLONS PER MINUTE
HB HOSE BIB
HD HEAD (FT)
HP HORSE POWER
ID INSIDE DIAMETER
I.E. INVERT ELEVATION
LAV LAVATORY
LT LAUNDRY TRAY
MA MEDICAL AIR
MAX MAXIMUM
MGC MEDICAL GAS CONSOLE
MH MAN HOLE
MIN MINIMUM
MS MOP SINK
M.T.C. MECHANICAL TRADES CONTRACTOR

NTS NOT TO SCALE
ORD OVERFLOW ROOF DRAIN
OXY OXYGEN
P PUMP
PD PRESSURE DROP
PVC POLY-VINYL-CHLORIDE
RC RAIN CONDUCTOR
RD ROOF DRAIN
RI ROUGH-IN REQUIRED
REQ'D REQUIRED
SAN SANITARY
SHWR SHOWER
SK SINK
SP STAND PIPE
SQ. FT. SQUARE FEET
SS SERVICE SINK
STORM STORM
S&W STOP & WASTE
STR STRAINER
SV STACKED VENT
TYP. TYPICAL
UR URINAL
VB VACUUM BREAKER
VS VENT STACK
V.F.D. VARIABLE FREQUENCY DRIVE
VTR VENT THRU ROOF
W WASTE
WB WET BULB
WC WATER CLOSET
WH WALL HYDRANT
WS WASTE STACK
W&V WASTE AND VENT
X-CW EXIST. CW PIPING
EXIST EXISTING

GENERAL PLUMBING NOTES

- ALL PLUMBING WORK SHALL CONFORM TO MICHIGAN PLUMBING CODE, LATEST APPLICABLE EDITION.
- INSTALL ALL EQUIPMENT, MATERIALS, AND ACCESSORIES PER MANUFACTURERS WRITTEN INSTRUCTIONS.
- CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE BEGINNING WORK.
- FIELD VERIFY LOCATIONS OF EXISTING PIPING THAT MAY CONFLICT WITH NEW CONSTRUCTION AND RELOCATE AS NEEDED.
- NOTIFY OWNER OF ANY PIPING DEMOLITION THAT MAY AFFECT NORMAL OPERATION OF OTHER AREAS.
- 1% SLOPE FOR ALL SANITARY PIPING.
- THE CONTRACTOR SHALL FIELD VERIFY THE SIZES, LOCATION, ELEVATIONS, AND DETAILS OF ALL EXISTING CONDITIONS THAT MAY AFFECT THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EQUIPMENT AND MATERIALS IN A "NEW" CONDITION DURING CONSTRUCTION.
- ALL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS AND SUBCONTRACTORS AS REQUIRED BY LAW.
- DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CODES AND REGULATIONS ENFORCED BY LOCAL BUILDING OFFICIALS.
- IF THERE IS CONFLICTING INFORMATION IN THE PLANS OR SPECIFICATIONS THE MORE STRINGENT AND GREATER COST ITEM SHALL BE USED.
- DRAWINGS INDICATE REQUIRED SIZES AND POINTS OF TERMINATION OF PIPES AND SUGGESTED ROUTES. IT IS NOT INTENTION OF DRAWINGS TO INDICATE ALL NECESSARY OFFSETS. INSTALL WORK IN MANNER TO CONFORM TO STRUCTURE. AVOID OBSTRUCTIONS, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. DO NOT SCALE FROM DRAWINGS.

GENERAL PLUMBING SPECIFICATIONS

CODES AND ORDINANCES
COMPLY WITH MICHIGAN PLUMBING CODE

PIPING SPECIALTIES
ESCUTCHEONS: CHROME PLATED, MANUFACTURED WALL, CEILING, AND FLOOR PLATES. DEEP PATTERN TYPE WHERE REQUIRED TO CONCEAL PROTRUDING FITTINGS AND SLEEVES. INSTALL ON ALL PIPING EXPOSED TO VIEW IN FINISH SPACES AND UNDER SINKS. DIELECTRIC FITTINGS: INSTALL DIELECTRIC FITTINGS WHERE JOINING PIPING OF DISSIMILAR METALS.

PIPE INSULATION
DOMESTIC COLD WATER: MINIMUM OF 1" CLOSED CELL FOAM OR MINERAL FIBER WITH ASJ JACKET WITH SEALED JOINTS TO PREVENT CONDENSATION. DOMESTIC HOT WATER: INSULATE SAME AS COLD WATER.

WATER DISTRIBUTION PIPING
MATERIAL: HARD COPPER TUBE, ASTM B88, TYPE L WATER TUBE, DRAWN TEMPER WITH COPPER SOLDER JOINT PRESSURE FITTINGS. JOINING MATERIAL: SOLDER, ASTM B32, ALLOY Sn65, Sn34, OR E, LEAD FREE. CLEANING & DISINFECTING: PURGE AND DISINFECT PORTABLE WATER SYSTEMS AS PRESCRIBED BY AUTHORITIES HAVING JURISDICTION. FOR UNDERGROUND PIPING, USE TYPE K SOFT COPPER TUBE WITH NO JOINTS.

PIPE HANGERS
ADJUSTABLE STEEL CLEVIS HANGERS, NOT-METALLIC COATING FOR ELECTROLYTIC PROTECTION WHERE ATTACHMENTS ARE IN DIRECT CONTACT WITH COPPER. COPPER U-STRAP HANGERS FOR UNINSULATED PIPE. COMPLY WITH MSS STANDARD PRACTICE #SP-69

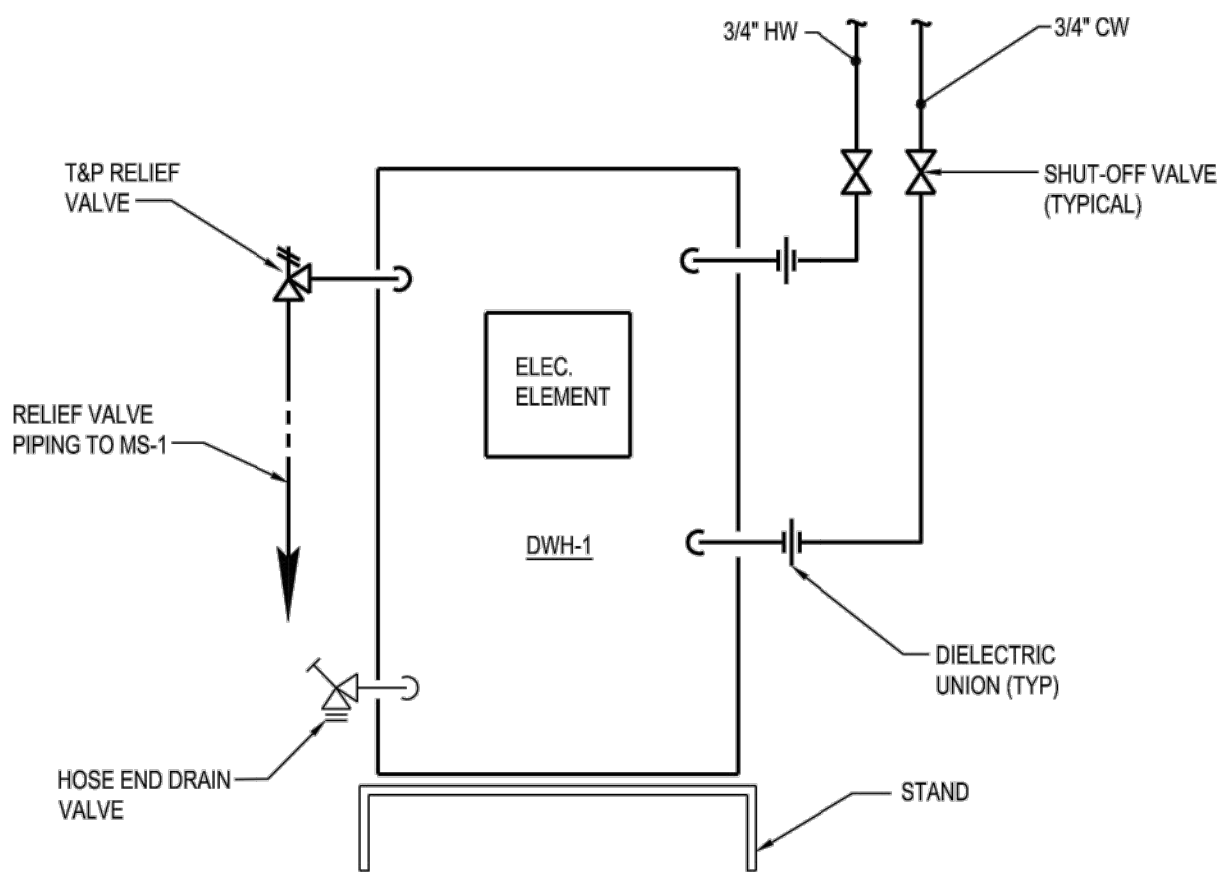
DRAINAGE AND VENT PIPING
ABOVE GROUND WASTE AND VENT: HUBLESS CAST, SOIL PIPE, C1SP1 301 WITH HUBLESS CAST-IRON COUPLINGS, C1SP1 310 WITH SS CORRUGATED SHIELD, SS BANDS, AND RUBBER SLEEVE. BELOW GROUND AND CONCEALED WASTE & VENT: PVC PLASTIC PIPE, ASTM D2665, SCHEDULE 40 WITH DRAINAGE PATTERN SOCKET FITTINGS.

HANGERS FOR CAST IRON PIPE:

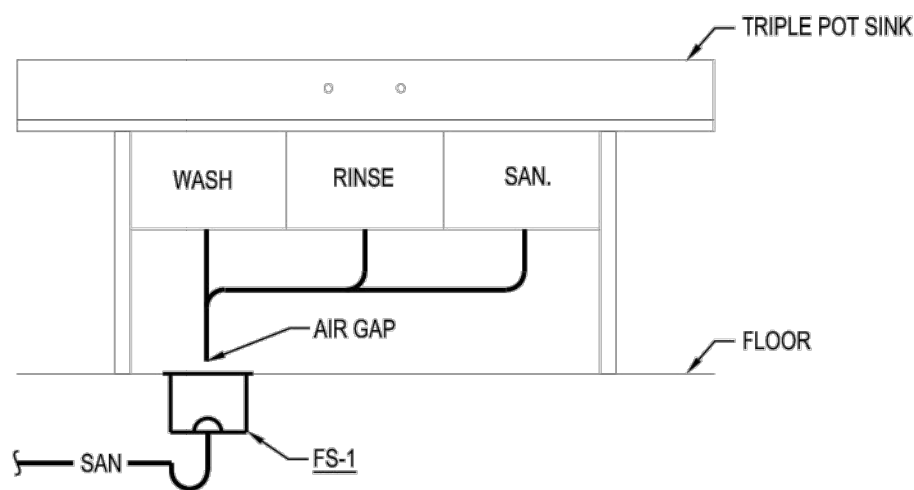
1 1/2" & 2" PIPE.	60 INCH MAX SPACING	3/8
INCH ROD		
3" PIPE	60 INCH MAX SPACING	1/2
INCH ROD		
4" & 5" PIPE	60 INCH MAX SPACING	5/8
INCH ROD		

VALVES
BALL VALVES: 2 PIECE ALLOY, BRONZE BODY WITH FULL PORT, CHORME PLATED BALL, TFE SEATS, 600 PSIG MIN OWP RATING, LEVEL HANDLE WITH EXTENDED STEM FOR INSULATION.

SHOP DRAWINGS
THE CONTRACTOR SHALL SUBMIT EQUIPMENT SHOP DRAWINGS TO THE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION OF ANY OF THE FOLLOWING:
A. PLUMBING FIXTURES
B. PLUMBING PIPE, FITTINGS, AND HANGERS



1 ELECTRIC WATER HEATER DETAIL
SCALE: NTS



2 TRIPLE POT SINK DETAIL
SCALE: NTS

PLUMBING SYMBOLS LEGEND

PLUMBING PIPING

— CW — COLD WATER
- - CW - - COLD WATER BELOW FINISH SLAB
— HW — HOT WATER
- - HW - - HOT WATER BELOW FINISH SLAB
— SAN — SANITARY WASTE
— SAN — SANITARY WASTE BELOW FINISH SLAB
— V — VENT PIPING
- - V - - VENT PIPING BELOW FINISH SLAB
- - - - - DEMOLITION

PLUMBING VALVES

— GATE VALVE
— GLOBE VALVE
— BALL VALVE

PLUMBING EQUIPMENT

— FLOW DIRECTION
— PIPING DROP
— PIPING RISE
— FLOOR CLEANOUT
— THERMOMETER
— CONNECTION
— FLOOR DRAIN & FLOOR SINK
— BACK FLOW PREVENTER
— FLANGE END CONNECTION
— WALL HYDRANT & HOSE BIBB
— PIPE CAP
— PIPE BREAK

MISCELLANEOUS NOTES

— POINT OF CONNECTION BETWEEN NEW AND EXISTING
— POINT OF EXISTING TO REMAIN AND EXISTING TO BE REMOVED
— (X) INDICATES PLAN NOTE
— (X) INDICATES DEMOLITION NOTE

— DETAIL BUBBLE
— (XX) DETAIL NUMBER
— (XXXX) PAGE LOCATION INDICATES

DOMESTIC WATER HEATER SCHEDULE

TAG	MODEL	LOCATION	GALLON CAPACITY	GPH @ 90°F RISE	ELECTRICAL				STARTER BY	HOT WATER TEMP.	REMARKS
					VOLTAGE	PHASE	WATTS	DISC. BY			
DWH-1	JEA030KD	CONCESSION / STORAGE RM 102	26	21	240	1	6000	EC	EC	120	1,2,3

NOTES:
1. BASED ON: LOCHINVAR
2. ELECTRICAL NOTES:
EC - ELECTRICAL CONTRACTOR
MC - MECHANICAL CONTRACTOR
NR - NOT REQUIRED
3. MANUFACTURER PROVIDED DRIP PAN & STAND

PLUMBING FIXTURE SCHEDULE

TAG	FIXTURE	ROUGH-IN CONNECTION SIZE				FAUCET TYPE	FIXTURE SIZE	ACCESSORIES AND COMMENTS
		CW	HW	SAN	VENT			
WC-1	FLOOR MOUNTED TANK TYPE WATER CLOSET (B.F.)	1/2"	-	4"	2"	-	-	COMMERCIAL SEAT
LAV-1	WALL HUNG LAVATORY (B.F.)	1/2"	1/2"	1 1/2"	1 1/4"	LAVATORY FAUCET GOOSENECK WRIST BLADES	20" x 18"	LAVATORY CARRIER, UNDERSINK TWP - STD. ASSE 1016
MS-1	MOP SINK	1/2"	1/2"	3"	1 1/2"	SERVICE SINK FAUCET	30" x 24" x 12"	HOSE AND MOP RACK
SK-1	STAINLESS STEEL THREE COMPARTMENT SINK, BASED ON ADVANCE TABCO MODEL FC-3-2424-18RL-X	1/2"	1/2"	3"	1 1/2"	BASED ON ADVANCE TABCO MODEL FC-3-2424-18RL-X	18" x 30" x 43"	THREE COMPARTMENT SINK
FS-1	FINISH AREA FLOOR DRAIN, BASED ON JAY R. SMITH 3001 SERIES	-	-	-	-	-	-	SEE PLAN FOR SANITARY SIZE, STAINLESS STEEL 3/4" GRATE
EWC-1	ELECTRIC WATER COOLER WALL HUNG BI-LEVEL	1/2"	-	1 1/2"	1 1/4"	-	-	WATER COOLER CARRIER

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NO.	DESCRIPTION	DATE
6		
5		
4		
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2		
1	Addendum 1	12/14/2021

CITY OF ONOSSO
**WARMING CENTER
RENOVATIONS**

1225 WALNUT ST.
ONOSSO, MI 48861

DRAWING TITLE
**PLUMBING
SYMBOLS, NOTES,
AND ABBREVIATIONS**

PROJECT NO. 21-450
DATE 12/13/2021
DRAWN NLS
CHECKED CAT

P100

CAD FILE NO.
SCALE 1/4" = 1'-0" SHEET 13 OF 22

12/13/2021