

PLUMBING GENERAL NOTES

- ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE 2018 NORTH CAROLINA PLUMBING CODE (NPC).
- PLUMBING VENT PIPING SHOWN IS ONLY FOR DIAGRAMMATIC PURPOSES. COORDINATE VENT THROUGH ROOF LOCATION WITH HVAC AIR INTAKES.
- ALL VALVES ABOVE CEILING AND IN CONCEALED SPACES SHALL BE LABELED AT CEILING TILE WITH METAL CEILING TACKS INDICATING VALVE # AND TYPE OF WATER. (i.e., BLUE-COLD WATER, LETTERING CW VLV1-001).
- PROVIDE WATER HAMMER ARRESTORS IN ALL HW AND CW SUPPLY PIPING AS SHOWN ON WATER RISERS. INSTALL IN ACCORDANCE WITH PDH-WH201 STANDARDS. AIR CHAMBERS ARE NOT ACCEPTABLE SUBSTITUTIONS.
- PROVIDE THERMAL INSULATION FOR HOT WATER, HOT WATER RETURN AND COLD WATER PIPING IN ACCORDANCE WITH THE ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION AND PER SPECIFICATIONS.
- PROVIDE CLEANOUTS AT THE BASE OF EACH SANITARY STACK IN ACCORDANCE WITH THE 2018 NORTH CAROLINA PLUMBING CODE (NPC). CLEANOUTS SHALL BE SIZED TO MATCH THE PIPING BEING SERVED. FLOOR CLEANOUTS SHALL BE SPACED AT 75' 0" MAX. ALSO PROVIDE CLEANOUTS IN HORIZONTAL CHANGE OF DIRECTIONS >45°.
- THE MANUFACTURERS OF ALL EQUIPMENT SHOWN ARE THE BASIS OF DESIGN. SEE SPECIFICATIONS FOR OTHER ACCEPTABLE MANUFACTURERS.
- FIRE CAULK AND SLEEVE ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. REFER TO LIFE SAFETY PLANS FOR RATED ASSEMBLY LOCATIONS. REFER TO THE ARCHITECTURAL SHEET FOR WALL DETAILS AND UL ASSEMBLY NUMBERS.
- COORDINATE UNDERGROUND PIPING INVERT ELEVATIONS WITH STRUCTURAL FOOTING ELEVATIONS AND CIVIL INVERT CONNECTIONS PRIOR TO ANY UNDERGROUND PIPING INSTALLATIONS. IF FOOTINGS ARE IN CONFLICT AND WHERE A PIPING TOLL DOWN IS NOT POSSIBLE, COORDINATE WITH GENERAL CONTRACTOR FOR DROPS IN FOOTINGS AS REQUIRED.
- VALVES AND FITTINGS SHALL BE THE SAME SIZE AS THE PIPING WHERE THEY ARE LOCATED UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL ROUGH IN ALL WASTES AND WATER SUPPLIES FOR FIXTURES AND PERFORM FINAL CONNECTIONS AS NEEDED.
- ALL FLOOR DRAINS SHALL BE PROVIDED WITH TRAP PRIMER CONNECTIONS. UNLESS NOTED OTHERWISE.
- ALL FLOOR DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH A TRAP GUARD UNLESS NOTED OTHERWISE.
- ALL FLOOR/ROOF DRAINS SHALL BE PROTECTED FOR THE DURATION OF THE PROJECT. IF ANY DRAINS ARE FOUND TO CONTAIN DEBRIS THE CONTRACTOR SHALL CLEAN AND SCOPE THE DRAIN SYSTEM AT NO ADDITIONAL CHARGE TO THE OWNER.
- THE CONTRACTOR SHALL ROUGH IN ALL WASTES AND WATER SUPPLIES FOR FIXTURES AND PERFORM FINAL CONNECTIONS AS NEEDED.
- ALL FLUSH VALVE WATER CLOSETS SHALL BE ROUGHED IN SO THAT THE FLUSH VALVE HANDLE IS TO THE WIDE SIDE OF THE ROOMSTALL.
- THIS FACILITY SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
- WHERE WATER PRESSURE WITHIN THE BUILDING EXCEEDS 80 PSI STATIC, THE CONTRACTOR SHALL INSTALL AN APPROVED WATER PRESSURE REDUCING VALVE CONFORMING TO ASSE 1003 WITH STRAINER. CONTRACTOR SHALL SET PRESSURE AT 60 PSI.
- REGARDLESS OF HOW PIPING IS PRESENTED ON THE DRAWINGS, PROVIDE ECCENTRIC (FLAT ON TOP) REDUCERS IN HOT AND COLD DOMESTIC WATER PIPING.
- CONDENSATE PIPING FROM THE DOWN STREAM OF THE HUB DRAIN SHALL BE A HUBLESS CAST IRON SYSTEM.
- ALL DEVICES, EQUIPMENT, VALVES, ETC. THAT REQUIRE ACCESS SHALL NOT BE LOCATED ABOVE WOOD OR GYPSUM CEILING. COORDINATE WITH THE ARCHITECTURAL REFLECTED CEILING PLAN FOR ACCESSIBLE CEILING LOCATIONS OR ACCESS PANELS. PROVIDE ACCESS DOORS IN INACCESSIBLE CEILING TO ACCESS MEP DEVICES ABOVE CEILING NOT OTHERWISE ACCESSIBLE.

PLUMBING LOAD SUMMARY			
SERVICE	FIXTURE UNITS	FLOW (GPM)	PIPE SIZE
SANITARY	188 DFUS	-	4" AT 1/4" PER FOOT SLOPE
DOMESTIC COLD WATER	49 FIXTURE UNITS	49.8	2"
DOMESTIC HOT WATER	18.5 FIXTURE UNITS	19.0	1 1/4"
TOTAL DOMESTIC WATER	56.8 FIXTURE UNITS	52.7	2"

NATURAL GAS LOAD SUMMARY	
EQUIPMENT	GAS INPUT (CFH)
B-1	1,880
CLOTHES DRYER	145
TOTAL	1,525

- NOTES:**
- GAS SERVICE DELIVERY PRESSURE AT METER SHALL BE 2.0 PSI.
 - DISTANCE FROM METER TO MOST REMOTE POINT OF DELIVERY SHALL BE 100 FEET.
 - GAS PIPE SIZING WAS COMPLETED USING TABLE 402.4 IN THE 2018 NC PLUMBING CODE. THIS TABLE USES AN INLET PRESSURE OF 2.0 PSI. A PRESSURE DROP OF 1.0 PSI.

PLUMBING SYMBOLS

RISER DESIGNATIONS

SYMBOL	DESCRIPTION
	SANITARY RISER DESIGNATION (S, V) RISER NUMBER
	DOMESTIC WATER RISER DESIGNATION (CW, HW, HWR) RISER NUMBER

EQUIPMENT DESIGNATIONS

SYMBOL	DESCRIPTION
ET X	EXPANSION TANK DESIGNATION
FD X	FLOOR DRAIN DESIGNATION
HD X	HOSE BIB DESIGNATION
FX	PLUMBING FIXTURE DESIGNATION
HWRP X	HOT WATER RECIRCULATING PUMP DESIGNATION
IWH X	INDIRECT WATER HEATER DESIGNATION
TD X	TRENCH DRAIN DESIGNATION
WH X	WALL HYDRANT DESIGNATION
YH X	YARD HYDRANT DESIGNATION

RISER DIAGRAM COMPONENTS AND SPECIALTIES

SYMBOL	DESCRIPTION
	SHOCK ARRESTER
	VACUUM BREAKER
	VENT THROUGH ROOF
	TRAP ARM
	URINAL / WATER CLOSET (WALL MOUNTED)
	URINAL / WATER CLOSET (FLOOR MOUNTED)
	FLOOR / ROOF DRAIN
	CLEAN OUT (WALL / PIPE)
	CLEAN OUT (FLOOR)

COMPONENTS AND SPECIALTIES

SYMBOL	DESCRIPTION
	CLEAN OUT (WALL / PIPE)
	CLEAN OUT (FLOOR)
	COLD WATER INTERIOR HOSE BIB
	EXTERIOR WALL HYDRANT (FREEZE PROOF)
	AREA DRAIN
	FLOOR DRAIN
	FLOOR DRAIN WITH TRAP PRIMING LINE
	SHOCK ARRESTER WITH ACCESS DOOR
	TEMPERING VALVE

PIPING SYMBOLS

SYMBOL	DESCRIPTION
	DOMESTIC COLD WATER (POTABLE)
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRCULATION
	NATURAL GAS
	LANDFILL GAS
	SANITARY
	VENT

PLUMBING ABBREVIATIONS

BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNITS PER HOUR
CFM	CUBIC FEET PER MINUTE
CO	CLEANOUT
CW	COLD WATER, DOMESTIC CITY WATER
DIA	DIAMETER
EA	EXHAUST AIR
ED	EQUIPMENT DRAIN
EJ	EXPANSION JOINT
FF	FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION
FFM	FEET PER MINUTE
FPS	FEET PER SECOND
F	DEGREES FAHRENHEIT
G	NATURAL GAS
GAL	GALLON, GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
KW	KILOWATTS
MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
No	NUMBER
NPSH	NET POSITIVE SUCTION HEAD
PPI	POUNDS PER HOUR
PSI	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR
RL	RELIEF AIR
RPM	REVOLUTIONS PER MINUTE
RV	ROOF VENT
R	REMOVE EXISTING
SA	SUPPLY AIR
SAN	SANITARY
SS	STAINLESS STEEL
TYP	TYPICAL
VFD	VARIABLE FREQUENCY DRIVE
VSD	VARIABLE SPEED DRIVE
VTR	VENT THROUGH ROOF



JACKSON COUNTY
ANIMAL RESCUE CENTER AND GREEN ENERGY PARK
 DILLSBORO, NORTH CAROLINA

SHEET ISSUE

NO.	DATE	DESCRIPTION	BY
1	09/02/2020	ISSUE FOR BID + PERMIT	RMF

PRINCIPAL IN CHARGE:
 PROJECT ARCHITECT:
 DRAWN BY: MRT
 SHEET TITLE:
**PLUMBING LEGEND,
 SYMBOLS AND
 ABBREVIATIONS**

SHEET NO. PROJ. NO.
 019216.00

P001

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