PLUMBING NOTES

1. PROVIDE ALL WORK, EQUIPMENT, SERVICES, LABOR AND MATERIALS NECESSARY FOR THE INSTALLATION OF COMPLETE WASTE, VENT AND DOMESTIC WATER PIPING SYSTEMS.

2. ALL PLUMBING TO COMPLY WITH THE LATEST EDITION OF THE STATE PLUMBING CODE.

3. DOMESTIC WATER PIPING ABOVE SLAB SHALL BE TYPE L HARD COPPER PIPING. ALL HOT WATER DISTRIBUTION PIPE/TUBING SHALL HAVE A MINIMUM PRESSURE RATING OF 100 PSI AT 180°F.

4. UNDER SLAB PIPING SHALL BE TYPE K SOFT DRAWN COPPER. SHALL HAVE A MINIMUM PRESSURE RATING OF 160 PSI AT 73.4°F. INCOMING WATER SUPPLY PIPING AND TRAP PRIMER WATER PIPING SHALL BE THE ONLY WATER PIPING BELOW SLAB.

5. SANITARY WASTE PIPING AND VENT PIPING SHALL BE PVC SCHEDULE 40.

6. ALL WASTE PIPING UNDER SLAB SHALL BE A MINIMUM OF 4" NATIONAL PIPE SIZE.

7. HORIZONTAL WASTE PIPING SHALL 2-1/2" OR LESS TO BE INSTALLED WITH A MINIMUM SLOPE OF 1/4" PER LINEAR FOOT, 3" TO 6" TO BE INSTALLED WITH A MINIMUM SLOPE OF 1/8" PER LINEAR FOOT.

8. ALL HOT WATER PIPING SHALL BE CONTINUOUSLY INSULATED WITH ARMOFLEX II OR APPROVED EQUAL WITH A CONDUCTIVITY RATING BETWEEN 0.24 & 0.28. ALL COLD WATER PIPING SHALL BE INSULATED WHERE SWEATING CAN CAUSE ANY DAMAGE TO STRUCTURE AND/OR BUILDING FINISHES.

9. ALL PLUMBING FIXTURES SHALL MEET OR EXCEED THE DESCRIPTIONS ON PLUMBING FIXTURE SCHEDULE. FIXTURE MODELS AND DESCRIPTIONS ON PLUMBING FIXTURE SCHEDULE ARE FOR DESCRIPTION PURPOSES ONLY, OWNER APPROVED EQUAL MAY BE USED.

10. RPZ TYPE BACKFLOW PREVENTER ASSEMBLY SHALL BE INSTALLED ON WATER SERVICE, SIZE PER SERVICE. BACKFLOW PREVENTER ASSEMBLY SHALL BE WATTS AND SHALL COMPLY WITH ASSE 1024. BACKFLOW PREVENTER ASSEMBLY SHALL BE INSTALLED MIN. 12" AFF AND MAINTAIN 18" OF CLEARANCE ON EACH END, SHALL BE INSTALLED MANUFACTURERS RECOMMENDATIONS.

11. WATER PIPING SHALL BE HYDROSTATICALLY TESTED WITH POTABLE WATER FOR TWO HOURS AT NOT LESS THAN 100 PSI.

12. PLUMBING CONTRACTOR TO PERFORM A INCOMING WATER SERVICE WATER PRESSURE TEST. IF RESIDUAL WATER PRESSURE EXCEEDS 60 PSI, CONTRACTOR SHALL INSTALL A PRESSURE REDUCING VALVE. PRESSURE BOOSTER SYSTEM SHALL BE INSTALLED IF PRESSURE IS LESS THAN 35 PSI.

13. ALL DRAINAGE, VENT AND BRANCH PIPING SHALL BE TESTED WITH WATER OR AIR PRESSURE PER LOCAL CODES AND INTERNATIONAL PLUMBING CODES.

14. SHUT-OFF VALVES TO BE INSTALLED ON ALL FIXTURE WATER SUPPLY LINES.

15. ALL SINKS TO BE EQUIPPED WITH TRUEBRO PIPE COVERS.

16. LAVATORIES SHALL BE EQUIPPED WITH CLEAN-OUT TEES.

17. TRAP PRIMERS OR WASH DOWN HOSE BIB TO BE INSTALLED FOR ALL FLOOR DRAINS AND/OR HUB DRAINS.

18. 1-COMP AND 4-COMP SINK DRAINS SHALL BE 2" COPPER PIPING FROM SINK TO INDIRECT DRAIN.

19. DOUBLE CHECK BACKFLOW PROTECTION SHALL BE INSTALLED ON ALL EQUIPMENT WITH DIRECT CONNECTIONS PER NC PLUMBING CODE SECTION 608.

PLANS ARE FOR DESIGN BUILD AND SOME ITEMS MAY NOT BE DETAILED. CONTACT ENGINEER WITH ANY DISCREPANCIES

NOTE:
ALL APPLIANCES AND APPARATUS CONNECTED TO THE WATER SUPPLY SYSTEM MUST HAVE APPROVED BACKFLOW PROTECTION PER 608.15 INTERNATIONAL PLUMBING CODE

BACKFLOW PROTECTION REQUIREMENTS FOR THE FOLLOWING DEVICES:
HOSE BIBB - PER IPC 608.15.4.2 (WALL HYDRANT P-24)
SHAKE MACHINE - PER IPC 608.3
TEA BREWER - PER IPC 608.16.10
DRINK TOWERS - PER IPC 608.16.1
STEAMER - PER IPC 608.3
ICE MACHINE - PER IPC 608.3
WATER FILTER - PER IPC 608.3

WASTE AND WATER CALCULATIONS

FU: FIXTURE UNITS

FIXTURE	QUANTITY	WASTE		HOT WATER		COLD WATER		TOTAL	
		FU/FIXTURES	TOTAL	FU/FIXTURES	TOTAL	FU/FIXTURES	TOTAL	FU/FIXTURES	TOTAL
WATER CLOSET - VALVE	4	6	24	0	0	10	40	10	40
URINAL	2	4	8	0	0	5	10	5	10
LAVATORY	4	1	4	1.5	6	1.5	6	2	8
HAND SINK	4	2	8	1	4	1	4	1.4	5.6
4-COMP SINK	1	4	4	3	3	3	3	4	[illegible]
PREP SINK	1	3	3	3	3	3	[illegible]	4	[illegible]
MOP SINK	1	2	2	2.25	2.25	2.25	2.25	3	3
CAN WASH	1	2	2	2.25	2.25	2.25	2.25	[illegible]	3
FLOOR/HUB DRAIN	20	2	40	0	0	0	0	[illegible]	0
TRENCH DRAIN	4	4	16	0	0	0	0	0	0
HOSE BIBB (COLD)	5	0	0	0	0	[illegible]	2.5	0.5	2.5
HOSE BIBB (HOT)	9	0	0	0.5	4.5	[illegible]	0	0.5	4.5
DRINK MACHINE	4	0	0	0	0	0.25	1	0.25	1
ICE MACHINE	1	0	0	0	0	0.25	0.25	0.25	0.25
SHAKE MACHINE	1	0	0	[illegible]	0	0.25	0.25	0.25	0.25
TEA BREWER	2	0	0	[illegible]	0	0.25	0.5	0.25	0.5
HOOD PIRANHA SYSTEM	1	0	0	0	[illegible]	3	3	3	3
TOTAL FIXTURE UNITS			[illegible]		25		78		89.6
MIN. WASTE PIPING SIZE	4"	MIN. COLD WATER SUPPLY PIPING SIZE				2"		TOTAL GPM	64.4

GREASE INTERCEPTOR CALCULATIONS

FIXTURE	QUANTITY (BOWLS/FIXTURES)	VOLUME GPM	ACTUAL DRAINAGE LOAD (= VOLUME x .75) GPM	ACTUAL GREASE WASTE DRAINAGE LOAD
1-COMP PREP SINK				
18"x 24"x 14" = 6048 ci / 231 = 26.18 gals.	1	26.18	19.64	19.64
4-COMP SINK				
14"x 24"x 14" = 4704 ci / 231 = 20.36 gals.	1	20.36	15.27	15.27
22"x 24"x 14" = 7392 ci / 231 = 32.0 gals.	3	96.00	72.00	72.00
ACTUAL DRAINAGE LOAD SIZED PER 4" TRAP				
CAN WASH (4" Trap size)	1	6	6.00	6.00
FLOOR DRAINS (4" Trap size)	16	6	96.00	96.00
TRENCH DRAINS (4" Trap size)	4	6	24.00	24.00
	ACTUAL GREASE WASTE DRAINAGE LOAD			232.91
FLOW RATE = ACTUAL DRAINAGE LOAD x 7 MIN. DRAINAGE PERIOD				1630.37
TOTAL INTERCEPTOR FLOW (GPM)				1630.37

PLUMBING LEGEND

SYMBOL	DESCRIPTION
solid line	COLD WATER
dash-dot line	FILTERED COLD WATER
long-short dash line	HOT WATER
dashed line	VENT PIPING
heavy line	WASTE PIPING
heavy dash-dot line	GREASE LINE
— C — C —	CONDENSATE PIPING
check valve symbol	CHECK VALVE
ball valve symbol	BALL VALVE SHUT-OFF
gate valve symbol	GATE VALVE SHUT-OFF
PRV symbol	PRESSURE REDUCING VALVE
elbow down symbol	ELBOW DOWN
elbow up symbol	ELBOW UP

PLUMBING FIXTURE SCHEDULE

DRAWING CODE	FIXTURE		DESCRIPTION	MANUFACTURER	MODEL	NOTES	PIPE SIZE DCW	DHW	FCW	WASTE	VENT
WC1	FLUSH VALVE WATER CLOSET, WALL HUNG, 1.6GPF, ADA	BOWL	ELONGATED, SIPHON JET, V.C., TOP SPUD; AFWALL, MOUNT 17-19"A.F.F.	KOHLER	K4325-0	1,6	1-1/2"	-	-	4"	2"
		FLUSH VALVE	11.5" HIGH, 1.28GPF	ZURN	Z6000PL-HET						
		SEAT	OFLC w/ SELF-SUSTAINING S.S. CHECK HINGE; HEIGHT 17-19" AFF	BEMIS	1955C						
		CARRIER	WALL MOUNT	ZURN	Z1203-N4						
WC2	FLUSH VALVE WATER CLOSET, WALL HUNG, 1.6GPF, STANDARD HEIGHT	BOWL	ELONGATED, SIPHON JET, V.C., TOP SPUD, AFWALL, MOUNT 15"A.F.F.	KOHLER	K4325-0	1,6	1-1/2"	-	-	4"	2"
		FLUSH VALVE	16" HIGH, 1.6GPF	ZURN	Z6000PL-HET						
		SEAT	OFLC w/ SELF-SUSTAINING S.S. CHECK HINGE	BEMIS	1955C						
		CARRIER	WALL MOUNT	ZURN	Z1203-N4						
UR1	URINAL WALL HUNG, 1.0GPF ADA	BOWL	VITREOUS CHINA, WASHOUT, ELONGATED RIM MTD. 17 A.F.F. MAX., 3/4"TOP SPUD	KOHLER	K4991-ET	1	3/4"	-	-	2"	2"
		FLUSH VALVE	11.5 HIGH	ZURN	Z6003EWSYBYC						
LV1	LAVATORY WALL HUNG, 0.5GPM, ADA	BOWL	21x18 VITREOUS CHINA, RIM 34" AFF MAX.	KOHLER	K2005-0	2,3,4,5	1/2"	1/2"	-	2"	2"
		FAUCET	4" CENTERSET, HOT-COLD, METERING, VANDAL RESISTANT	SYMMONS	S-60-G-H						
		DRAIN	GRID STRAINER	KEENEY	5680PCCP						
LV2	STAINLESS STEEL VESSEL LAVATORY, 0.5GPM	BOWL	DOUBLE WALL POLISHED STAINLESS STEEL VESSEL WITH OVERFLOW	DECOLAV	1228-P	2,3,4,5,9	1/2"	1/2"	-	2"	2"
		FAUCET	1 HOLE MOUNT, METERING LAVATORY DECK FAUCET W/THERMOSTATIC MIXING VALVE	AMERICAN STANDARD	775B.115.002						
		DRAIN	GRID STRAINER	JB PRODUCTS	JBD590						
HS1	WALL MOUNTED STAINLESS STEEL HAND SINK W/SPLASH GUARDS	BOWL	10"x12" STAINLESS STEEL	TITAN STAINLESS	SHS-1012	2,9	1/2"	1/2"	-	2"	2"
		FAUCET	GOOSENECK WRISTBLADE W/THERMOSTATIC MIXING VALVE	OWNER SPECIFIED	-						
		DRAIN	GRID STRAINER	TITAN STAINLESS	-						
HS2	WALL MOUNTED STAINLESS STEEL HAND SINK W/SPLASH GUARDS	BOWL	17"x9" STAINLESS STEEL	TITAN STAINLESS	CUSTOM	2,9	1/2"	1/2"	-	2"	2"
		FAUCET	GOOSENECK WRISTBLADE W/THERMOSTATIC MIXING VALVE	OWNER SPECIFIED	-						
		DRAIN	GRID STRAINER	TITAN STAINLESS	-						
SK1	4-COMPARTMENT COUNTERTOP SINK	BOWL	22x24x14", 18 GA S.S., 34"A.F.F. MAX.	TITAN STAINLESS	CUSTOM	2,4,5,	1/2"	1/2"	-	INDIRECT	2"
		FAUCET	180º SWING GOOSENECK SPOUT, 1.5GPM	OWNER SPECIFIED	-						
		DRAIN	OWNER SPECIFIED STRAINER, INDIRECT DRAIN TO FLOOR SINK	-	-						
SK2	1-COMPARTMENT COUNTERTOP PREP SINK	BOWL	18x24x14", 18 GA S.S., 34"A.F.F. MAX.	TITAN STAINLESS	CUSTOM	2,4,5,	1/2"	1/2"	-	INDIRECT	2"
		FAUCET	180º SWING GOOSENECK SPOUT, 1.5GPM	OWNER SPECIFIED	-						
		DRAIN	OWNER SPECIFIED STRAINER, INDIRECT DRAIN TO FLOOR SINK	-	-						
CW1	CAN WASH	BOWL	4'-6" x 4'-6" SITE BUILT CONCRETE	-	-	2,4,5	1/2"	1/2"	-	2"	2"
		FAUCET	WALL MOUNT FAUCET, 36" AFF	ZURN	Z843-M1-RC						
		DRAIN	FLOOR DRAIN	ZURN	ZN415B						
MS1	MOP SINK	BOWL	4'-6" x 3'-6" SITE BUILT CONCRETE	-	-	2,4,5	1/2"	1/2"	-	2"	2"
		FAUCET	WALL MOUNT FAUCET, 36" AFF	ZURN	Z843-M1-RC						
		DRAIN	FLOOR DRAIN	ZURN	ZN415B						
FCO	FLOOR CLEANOUT	FIXT	C.I. BODY, 6-1/2"TOPS, ADJUSTABLE, SCORIATED, NICKEL BRONZE TOP	ZURN	Z-1400-Z		-	-	-	MATCH	-
GCO	GRADE CLEANOUT	FIXT	C.I. BODY, RECESSED BRONZE PLUG.	ZURN	Z-1470		-	-	-	MATCH	-
FD1	FLOOR DRAIN	FIXT	FINISHLINE ADJUSTABLE, SCH. 40 HUB CONNECTION, ABS/PVC BASE ADAPTOR, ROUND NICKLE BRONZE STRAINER	ZURN	Z415B-ZN-P	7	-	-	-	MATCH	-
FS1	FLOOR SINK	FIXT	12x12x8 SANI-FLOOR RECEPTOR, MEMBRANE CLAMP, DOME STRAINER, 1/2 GRATE	ZURN	Z1901-ZN-VPS	7	-	-	-	MATCH	-
HD1	HUB DRAIN	FIXT	FLOOR DRAIN EQUIPPED WITH FUNNEL HUB, ADJUSTABLE TYPE "B" STRAINER	ZURN	Z415E	7	-	-	-	MATCH	-
TD1	TRENCH DRAIN	FIXT	40" TRENCH DRAIN	ZURN	Z883-FS		-	-	-	MATCH	-
RD1	ROOF DRAIN	FIXT	15" DIAMETER COMBINATION (MAIN AND OVERFLOW) ROOF DRAIN. DURA-COATED CAST IRON BODY, MEMBRANE FLASHING CLAMP/GRAVEL GUARDS	ZURN	Z100		-	-	-	MATCH	-
DSN1	ROOF DRAIN DOWNSPOUT NOZZLE	FIXT	NICKEL BRONZE BODY, DECORATIVE FACE OF WALL FLANGE	ZURN	ZARB199		-	-	-	MATCH	-
GI	GREASE INTERCEPTOR	FIXT	1500 GALLON GREASE INTERCEPTOR WITH RISER AND TRAFFIC RATED COVERS	LINDSAY PRECAST	1500		-	-	-	4"	2"
ID1	INDIRECT DRAIN	-	WALL RECESSED PVC P-TRAP (CONDENSATION DRAIN)	-	-		-	-	-	MATCH	-
TP1	TRAP PRIMER	-	TRAP PRIMER FOR 1/2"C CONNECTION TO FLOOR DRAINS AND HUB DRAINS	JAY R SMITH	2699		MATCH	-	-	-	-
HB1	INTERIOR HOSE BIBB	FIXT	POLISHED CHROME, VACUUM BREAKER,3/4" HOSE THREAD	WOODFORD	26		-	3/4"	-	-	-
FPWH1	EXTERIOR WALL HYDRANT	FIXT	HOT & COLD FREEZELESS, POWDER COATED, 3/4"HOSE THREAD, ANTI-SIPHON	WOODFORD	22		3/4"	3/4"	-	-	-
RH1	ROOF HYDRANT	FIXT	FREEZELESS ROOF HYDRANT W/1/2" DRAIN TO NEAREST INDIRECT DRAIN	ZURN	Z1388-VB		-	3/4"	-	-	-
BFPA	BACKFLOW PREVENTER	-	TYPE "RPZ" BACKFLOW PREVENTER ASSEMBLY	WATTS	719	8	MATCH	-	-	-	-
WF1	WATER FILTER	FIXT	WATER FILTER WITH BYPASS PIPING	WHIRLPOOL	WHCF-DWHV		3/4"	-	3/4"	-	-
DM1	CARBONATED BEVERAGE MACHINE	EQUIP	CARBONATED BEVERAGE MACHINE WITH OVERHEAD ICE BIN	COKE DISTRIBUTOR	-	9	-	-	1/2"	-	-
DM2	CARBONATED BEVERAGE MACHINE	EQUIP	CARBONATED BEVERAGE MACHINE WITH ICE MAKER AND ROOF MOUNTED REMOTE CONDENSER	COKE DISTRIBUTOR	-	9	-	-	1/2"	-	-
IM1	ICE MAKER	EQUIP	ICE MAKER WITH BIN	MANITOWOC	RFS-2378C	9	-	-	1/2"	-	-
SM1	SHAKE MACHINE	EQUIP	-	TAYLOR	772	9	-	-	1/2"	-	-
TB1	TEA BREWER	EQUIP	TEA BREWER WITH DISPENSER	BUNN	41400	9	-	-	1/2"	-	-
CB1	COFFEE BREWER	EQUIP	-	OWNER SPECIFIED	-	9	-	-	1/2"	-	-
CP1	RECIRCULATING PUMP	EQUIP	PUMP WITH AUTOMATIC TIMER (AQUASTAT AQS-3/4), 20.7 GPM MAX FLOW, 9.84 FT MAX HEAD	GRUNDFOS	UP 15-29 SF		-	3/4"	-	-	-
-	WATER HAMMER ARRESTER	EQUIP	WATER HAMMER ARRESTER 650 SERIES	SIOUX CHIEF	653-B		MATCH	MATCH	-	-	-
MX1	TEMPERING VALVE	EQUIP	THERMAL MIXING VALVE, TEMPERATURE SET AT 110 DEGREES	WATTS	LF1170		MATCH	MATCH	-	-	-
WH	WATER HEATER	EQUIP	INSTANTANIOUS WATER HEATER WITH BUILT-IN CIRCULATION PUMP, MC-195T REMOTE CONTROLLER, 140 DEGREES, 6.5 GPM AT 70 DEGREE RISE	RINNAI	CU199iN		MATCH	MATCH	-	-	-

NOTES
1. PROVIDE MATCHING WALL HANGER. COORDINATE WITH G.C. FOR WALL REINFORCING.
2. PROVIDE BRASS 1-1/2" TAILPIECE, CAST BRASS SLIP JOINT P-TRAP WITH CLEANOUT; PROVIDE ADA OFFSET ARRANGEMENT WHERE REQUIRED.
3. PROVIDE ADA INSULATION KIT
4. COORDINATE WITH MILLWORK.
5. COORDINATE ADA MILLWORK ENCLOSURE FOR WATER AND DRAIN PIPING UNDER SINK.
6. TRIP LEVER OR FLUSH HANDLE TO BE LOCATED ON WIDE SIDE OF STALL OR TOILET ROOM.
7. PROVIDE TRAP PRIMER OR WASH DOWN HOSE BIBB
8. FIELD ROUTE 1" DRAIN PAN DRAIN PIPING TO CLOSEST INDIRECT DRAIN OR SPILL TO GRADE.
9. PROVIDE WATER HAMMER ARRESTOR
10. PROVIDE INLINE CHECK VALVES FOR WATER SUPPLY LINES.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 26447 H. MACK SUMMEY, JR.

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NC Professional Engineering Firm License No. P-0336

No.	Date:	Description:	By:

PLUMBING SCHEDULES AND NOTES

COOK-OUT RESTAURANTS

4145 S. MEMORIAL DRIVE
PITT COUNTY - WINTERVILLE TOWNSHIP - NORTH CAROLINA

Scale:	AS NOTED
Date:	APRIL 2019
Drawn By:	ECB
Checked By:	HMSJ
Job No.:	E-5450

Sheet No. P-1
1 of 6

P:\E-5450 Cook-Out - Winterville, NC\DWG\PME\PME 4.4.19\Plumbing 2018-03-24.dwg, 4/4/2019 5:33:01 PM, Foxit PhantomPDF Printer