

**Storage Tank Water Heater Sizing Calculator**

Developed by the Plan Review Unit of the Environmental Health Services Section  
NC Division of Environmental Health

Facility Name: Harris Teeter #208  
Address: Charlotte, North Carolina

EQUIPMENT	Description	Number of compartments	(inches)			GPH CALCULATED
			Length	Width	Depth	
Sink #1	3 Comp Meat	3	30	24	14	98
Sink #2	3 Comp Bakery	3	30	24	14	98
Sink #3	3 Comp Produce	3	30	24	14	98
Sink #4	3 Comp Cheese	3	18	24	14	59
Sink #5						0
Sink #6	3 Comp Wine Bar	3	10	14	9.25	13
Sinks are calculated at 75% capacity						Total 367
Enter type of prep sink and number of sink compartments for each sink below		Type of prep sink (vegetable, meat, seafood)	Number of compartments	Gallons Per Hour (GPH)		
Prep sink #1	Meat 1-comp		1	5		
Prep sink #2	Deli 1-comp		1	5		
Prep sink #3	Deli purge sink		1	5		
Prep sink #4	Sushi purge sink		1	5		
Prep sink #5	Produce 2-comp prep		2	10		
Prep sink #6				0		
Prep sinks are calculated at 5 gallons per compartment						Total 30
Enter the quantity of equipment below		Quantity	Gallons Per Hour (GPH)			
Hand sinks/Lavatories	16		80			
Can wash	1		10			
Mop sink	2		0			
Hose reel			0			
Clothes washer			0			
Enter a description and estimated gallon per hour (GPH) usage for other equipment below		Description	Estimated gallons per hour (GPH) usage	Gallons Per Hour (GPH)		
Other Equipment	Emp. Lounge sink		5	5		
Other Equipment	Pharm. Sink		5	5		
Other Equipment	Floral sink		5	5		
Other Equipment			0	0		
Hand sinks and mop sinks are calculated at 5 GPH each, can washes at 10 GPH each. Hose reels are calculated at 5 GPH, clothes washers at 15 GPH, other equipment at the usage entered.						Total 115
Enter the make, model and Final Rinse Usage in gallons per hour (GPH) for dishmachines		Make	Model	Final Rinse Usage (GPH)	Gallons Per Hour (GPH)	
Dishmachine #1	Perlick	PKHT24	17.9		12.53	
Dishmachine #2					0	
Enter the quantity of pre-rinse units		Quantity	Gallons Per Hour (GPH)			
Pre-rinse			0			
Dishmachines are calculated at 70% of the final rinse usage specified by the manufacturer. Pre-rinse are calculated at 45 GPH						Total 12.53
<b>Recovery Rate Needed (GPH):</b>					<b>525</b>	

**HEALTH DEPARTMENT HOT WATER LOAD**

HEATING EQUIPMENT	MODEL #	# FIXT.	HW RECOVERY GPH	TOTAL HW RECOVERY (100% RISE)
EXISTING WATER HEATER	STATE SUF100240NEA	2	273	546
HEAT RECLAIM TANK	THERMASTOR II-1	1	119	119
TOTAL RECOVERY				665

**PLUMBING APPLIANCE/FIXTURE SCHEDULE**

TAG	DESCRIPTION	MANUFACTURER MODEL #	SIZE	FAUCET/VALVE MANUF.	WASTE	TRAP	VENT	CW	HW	GAS	REMARKS
CFD-1	CONDENSATE FLOOR DRAIN	SILOUX CHIEF 832-36FP-832UM (STRAINER)	6 1/2"								P.C. TO PROVIDE WITH P-TRAP.
CS-8	3 COMPARTMENT SINK	BY HARRIS TEETER (PERLICK)		BY HARRIS TEETER (PERLICK)	1-1/2"			1/2"	1/2"		FURNISHED BY PERLICK, INSTALLED BY PLUMBING CONTRACTOR. P.C. TO PROVIDE ALL REQUIRED APPURTENANCES, INCLUDING SUPPLIES AND STOPS.
FS-1	FLOOR SINK	SILOUX CHIEF 861-4FN-2-D	10 3/4" SQUARE		4"	4"	2"				P.C. TO PROVIDE HALF GRATE.
GT-1	GREASE INTERCEPTOR	SCHIER GB-250	250 GPM		4"		INTEGRAL				PROVIDED WITH H20 RATED TOP.
GW-1	GLASSWASHER	BY HARRIS TEETER (PERLICK)			1"				1/2"		FURNISHED BY HARRIS TEETER, INSTALLED BY PLUMBING CONTRACTOR. P.C. TO PROVIDE ALL REQUIRED APPURTENANCES FOR CONNECTION.
GWS-1	GLASSWARE SINK	BY HARRIS TEETER (PERLICK)		BY HARRIS TEETER (PERLICK)	1-1/2"			1/2"	1/2"		FURNISHED BY HARRIS TEETER, INSTALLED BY PLUMBING CONTRACTOR. P.C. TO PROVIDE ALL REQUIRED APPURTENANCES FOR CONNECTION.
HD-1	HUB DRAIN				3" PVC	3"					REFER TO DRAWINGS FOR LOCATION.
HS-2	HAND SINK	BY HARRIS TEETER (PERLICK)		BY HARRIS TEETER (PERLICK)	2"	1-1/2"	1-1/2"	1/2"	1/2"		FURNISHED BY HARRIS TEETER, INSTALLED BY PLUMBING CONTRACTOR. P.C. TO PROVIDE ALL REQUIRED APPURTENANCES FOR CONNECTION.
IM-3	ICE MACHINE	BY HARRIS TEETER (HOSHIZAKI)			3/4"			1/4"			FURNISHED BY HARRIS TEETER, INSTALLED BY PLUMBING CONTRACTOR. P.C. TO PROVIDE ALL REQUIRED APPURTENANCES FOR CONNECTION. PIPE WASTE INDIRECT TO HUB DRAIN.
OD-1	OVERFLOW DRAIN	ZURN ZC-121-DP-89-90			6"						P.C. TO PROVIDE AND INSTALL. COORDINATE WITH ROOF CONTRACTOR AND G.C.
RD-1	ROOF DRAIN	ZURN ZC-121-DP-90			3"						P.C. TO PROVIDE AND INSTALL. COORDINATE WITH ROOF CONTRACTOR AND G.C.

**MISCELLANEOUS PLUMBING SCHEDULE**

TAG	TMV-2	WHA-3
MANUFACTURER	SYMMONS	PRECISION PLUMBING PRODUCTS (PPP)
TYPE	TEMPERING VALVE	WATER HAMMER ARRESTOR
MODEL#	7-210-CK	SC-750
CONNECTION	COMPRESSION	THREADED
SIZE	3/8"	3/4"
NOTES AND ACCESSORIES	3,4,5	1,2,5

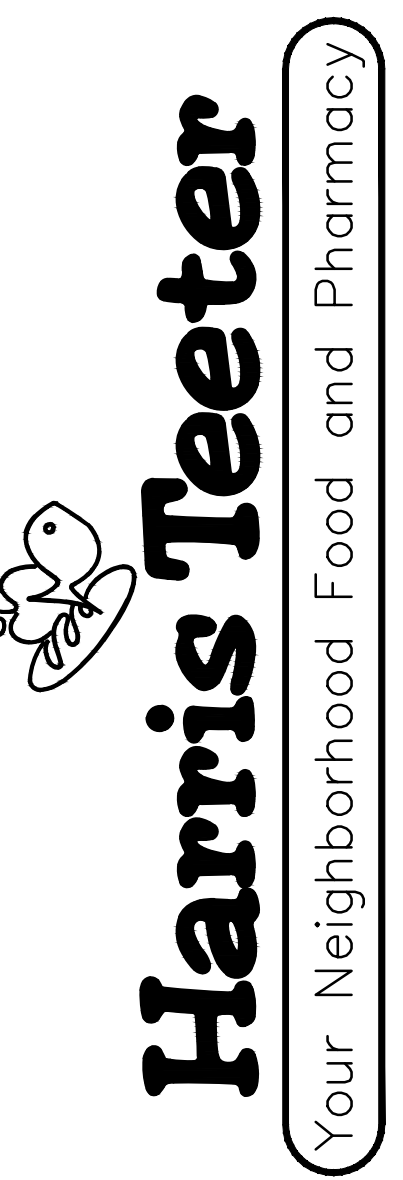
1. P.D.I. AND/OR ASME APPROVED  
2. PISTON TYPE  
3. IN-LINE TYPE WITH IN-LINE CHECKS  
4. LOCATED AT ALL ADA SINKS AND AT LOCATIONS REQUIRED BY AHJ.  
5. LEAD FREE COMPLIANT PER NSF 61.

**GAS FIRED EQUIPMENT SCHEDULE**

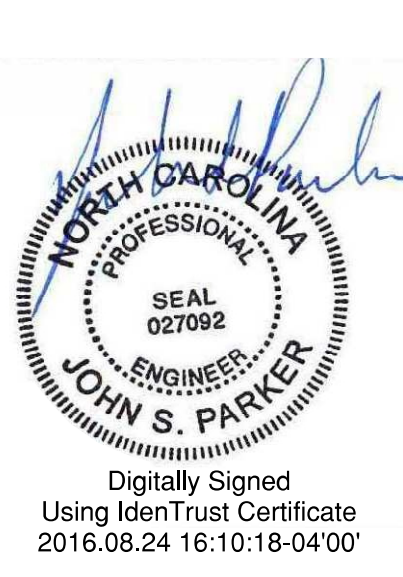
TAG	DESCRIPTION	CFH
RTU-1	EXISTING ROOF TOP UNIT	800
RTU-2	EXISTING ROOF TOP UNIT	390
RTU-3	EXISTING ROOF TOP UNIT	390
RTU-X	NEW ROOF TOP UNIT	120
RTU-7	EXISTING ROOF TOP UNIT	90
GUH-A	EXISTING UNIT HEATER	75
GUH-B	EXISTING UNIT HEATER	75
GWH-1	EXISTING GAS WATER HEATER	240
GWH-1	EXISTING GAS WATER HEATER	240
RT-1	EXISTING ROTISSERIE	240
FR-1	EXISTING FRYER	200
FR-1	EXISTING FRYER	200
FR-2	EXISTING FRYER	200
R-1	EXISTING RANGE	155
RO-1	EXISTING RACK OVEN	250
CV-1	EXISTING CONVECTION OVEN	88
	GENERATOR	670
	TOTAL CONNECTED GAS LOAD	4423.0

**GREASE INTERCEPTOR SIZING CALCULATION - GT-1**

FIXTURE	PIPE DIAMETER	FLOW RATE (GPM)	FIXTURE RATING	# OF FIXTURES	TOTAL GPM
3" FLOOR DRAIN/TRENCH DRAIN	3"	93	0	0	0
4" FLOOR DRAIN	4"	93	0	0	0
PREP SINK	1-1/2"	15	.75	1	0.75
3 COMPARTMENT SINK	1-1/2"	15	1	1	15.00
MOP SINK	3"	93	.25	0	0.00
				GPM	15.75
				RETENTION TIME	15 MINUTES
				SIZE REQUIRED	236.25 GALLONS
				SIZE PROVIDED	250 GALLONS



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HARRIS TEETER  
STORE # 208  
COTSWOLD SHOPPING CENTER  
CHARLOTTE, NC

PROJECT MANAGER  
KIM STACY  
JOB NO.  
15-H2208-02  
DR. BY  
KLG

REVISIONS

No.	Date

DRIVING NAME  
**PLUMBING SCHEDULES**