

AIR SUPPLY REQUIREMENTS GUIDE FOR MasterTemp® Heaters

Minimum Net Free Open Area for Each Opening*

Model	Combustion	Vent
250	63 sq. in.	63 sq. in.

*Area indicated is for one of two openings, one at floor level and one at the ceiling

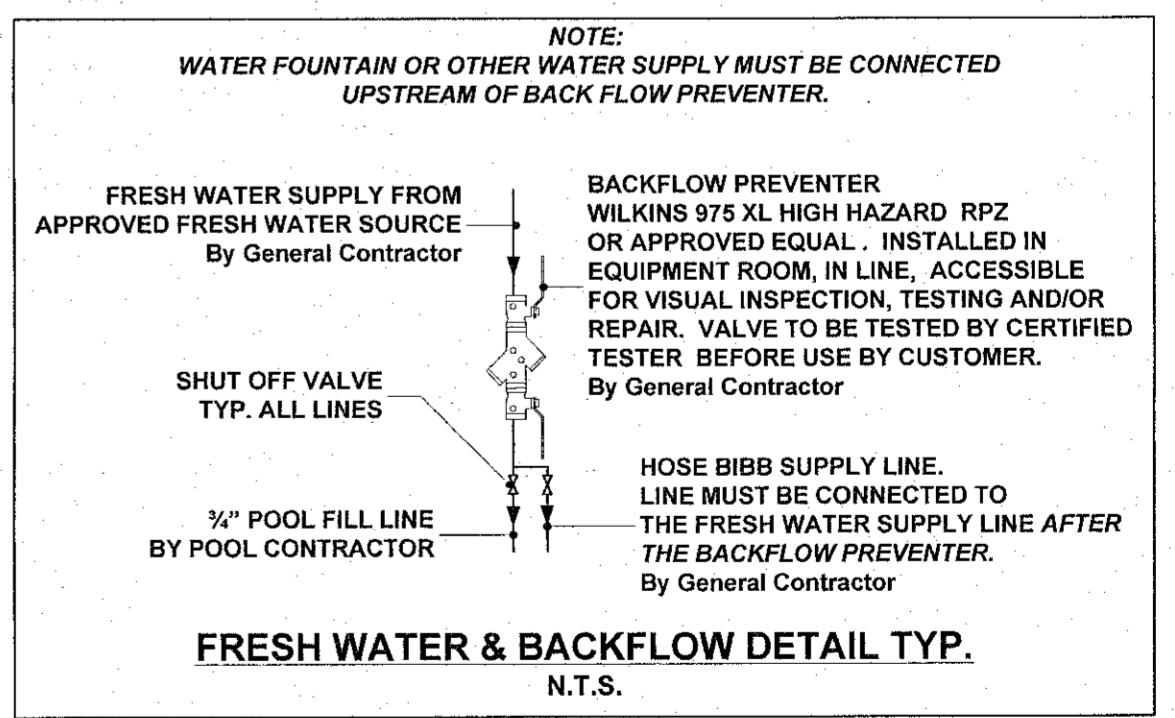
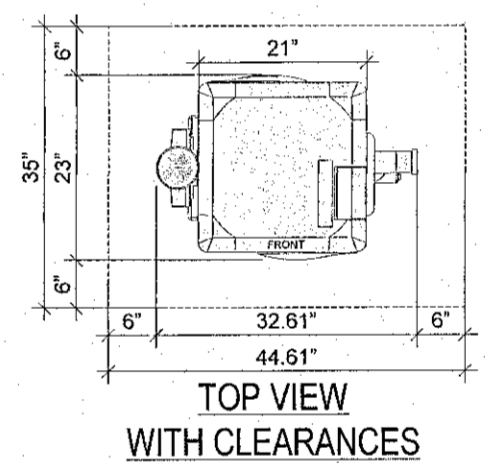
- NOTE:
- HEATER INSTALLATION BY POOL CONTRACTOR - WATER TO WATER CONNECTIONS ONLY
 - HEATER GAS SUPPLY LINE, CONNECTION AND VENTING BY PLUMBING CONTRACTOR
 - ELECTRICAL SUPPLY FOR ELECTRONIC IGNITION BY ELECTRICAL CONTRACTOR

NOTE:
 THE HEATER'S AUTOMATIC FLOW CONTROL VALVE MAINTAINS THE PROPER FLOW THROUGH THE HEATER AT RATES UP TO APPROXIMATELY 125 GPM

NOTE:
 THE HEATER IS PROVIDED WITH THERMOSTAT CONTROL WITH AN AUTOMATIC CUT-OFF FOR AN UPPER LIMIT OF 104° F AND ABOVE.

NOTE:
 MAXIMUM OPERATING TEMPERATURE FOR HEATED POOLS NOT TO EXCEED 90° F

IT IS RECOMMENDED THAT A CARBON MONOXIDE (CO) ALARM BE INSTALLED IN ALL ENCLOSED SPACES CONTAINING COMBUSTION APPLIANCES.



NOTE:
 PLANS ARE FOR POOL CONSTRUCTION ONLY.

ANY REQUIRED REVISED CONSTRUCTION DRAWINGS INCLUDING PLUMBING, MECHANICAL AND ELECTRICAL CHANGES NECESSARY FOR POOL PERMIT AND INSTALLATION ARE THE RESPONSIBILITY OF OTHERS

ALL BUILDING, EQUIPMENT & CHEMICAL ROOM NOTES AND SPECIFICATIONS ARE FOR COORDINATION AND INFORMATION ONLY.

ELECTRICAL DATA IS FOR COORDINATION AND INFORMATION ONLY

NOTE:
 ALL ELECTRICAL CIRCUITS WITHIN THE POOL AREA ARE TO BE PROVIDED WITH GROUND-FAULT-INTERRUPTERS (GFI).

THE POOL AREA IS DEFINED AS THE FENCED IN AREA INCLUDING THE TOILET FACILITIES, EQUIPMENT ROOM, CHEMICAL STORAGE, ETC.

FIELD LOCATE ALL EQUIPMENT TO PROVIDE 3 FOOT SERVICE CLEARANCE PER NC DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES, DIVISION OF ENVIRONMENTAL HEALTH RULES AND REGULATIONS 15A NCAC 18A.2533(c)

EQUIPMENT BONDING PER NEC ARTICLE 680 AND RELEVANT LOCAL ELECTRICAL CODES. COPPER CONDUCTOR NOT LESS THAN 8 AWG

NOTE:
 PER SECTION 2534 A SEPARATE ROOM FOR STORAGE OF POOL CHEMICALS MUST BE PROVIDED.

MINIMUM REQUIRED STORAGE SPACE 6 S.F.
 PROVIDED STORAGE SPACE 9 S.F.

ONLY CHEMICALS USED IN THE OPERATION OF THE POOL SHALL BE STORED IN THE CHEMICAL ROOM.

MINIMUM ROOM SIZE CALCULATIONS

CHEMICAL ROOM

POOL VOLUME		
16,810		
5 S.F.	1ST	10,000
2 S.F.	1 per/ 3,000 GALLONS	6,000
1 S.F.	BALANCE GALLONS	810
8 S.F.	MIN. REQ. STORAGE SPACE	

VENTING REQUIREMENTS

EQUIPMENT ROOM VOLUME: 1,124 CF
 EQUIPMENT ROOM EXHAUST: 187 CFM FAN

CHEMICAL ROOM VOLUME: 81 CF
 CHEMICAL ROOM EXHAUST: 14 CFM FAN

VENTILATION CALCULATIONS

POOL EQUIPMENT ROOM

12'-8" X 10'-9"	
12.66 X 10.66	134.9
Minus Chem. Room	9.99
	124.9
9'-0" CEILING HEIGHT	x 9
CUBIC FEET	1,124.10
10 AIR CHANGES PER HOUR	+ 6
EQUIPMENT ROOM EXHAUST	187.35 CFM FAN

CHEMICAL ROOM

3' X 3'	
3.0 X 3.0	9
9'-0" CEILING HEIGHT	x 9
CUBIC FEET	81
10 AIR CHANGES PER HOUR	+ 6
CHEMICAL ROOM EXHAUST	13.5 CFM FAN

EXHAUST FANS FOR EQUIPMENT & CHEMICAL ROOMS

DO NOT WIRE FAN WITH LIGHT SWITCH.

FANS MUST BE WIRED TO OPERATE CONTINUOUSLY.

NATURAL OR FORCED AIR VENTILATION IS REQUIRED. CROSS DRAFT VENTILATION IS RECOMMENDED.

TO ENSURE PROPER VENTILATION OF EQUIPMENT AND CHEMICAL ROOMS IN ADDITION TO THE EXHAUST FANS THE DOORS MAY NEED TO BE PROVIDED WITH LOUVERS

EXHAUST FANS SIZED FOR 10 AIR CHANGES/HOUR

VENT TO ROOF AND AWAY FROM POOL AREA.

THE ABOVE BY GENERAL CONTRACTOR

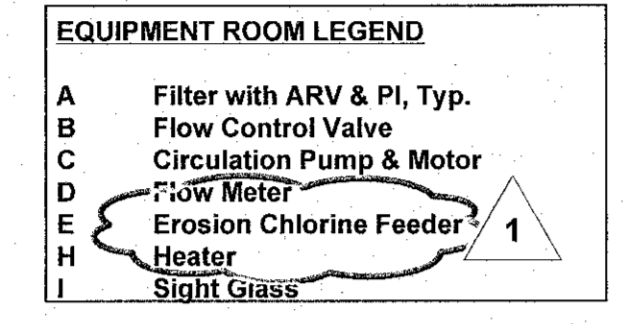
NOTE:
 ALL PIPING IN PUMP/ EQUIPMENT ROOM SHALL BE SCH 40 PVC, 2" LINE SIZE UNLESS NOTED OTHERWISE.

VALVES SHALL BE PERMANENTLY TAGGED AND VALVE OPERATION INSTRUCTIONS AND SCHEDULE SHALL BE PERMANENTLY POSTED ON EQUIPMENT ROOM WALL IN WATERPROOF ENCLOSURE.

EQUIPMENT ROOM NOTES:

- FLOOR DRAIN SHALL BE CONNECTED TO SANITARY SEWER SYSTEM
- AN ON/OFF SWITCH SHALL BE PROVIDED WITHIN ARMS LENGTH OF EACH PUMP. PUMPS SHALL NOT BE ACTIVATED BY PANEL CIRCUIT BREAKER
- LIGHT FIXTURES REQUIRED MINIMUM 162 WATTS POOL EQUIPMENT ROOM 100 WATTS CHEMICAL STORAGE ROOM
- EQUIPMENT AND CHEMICAL STORAGE ROOMS TO HAVE A MINIMUM SEVEN FOOT CEILING HEIGHT

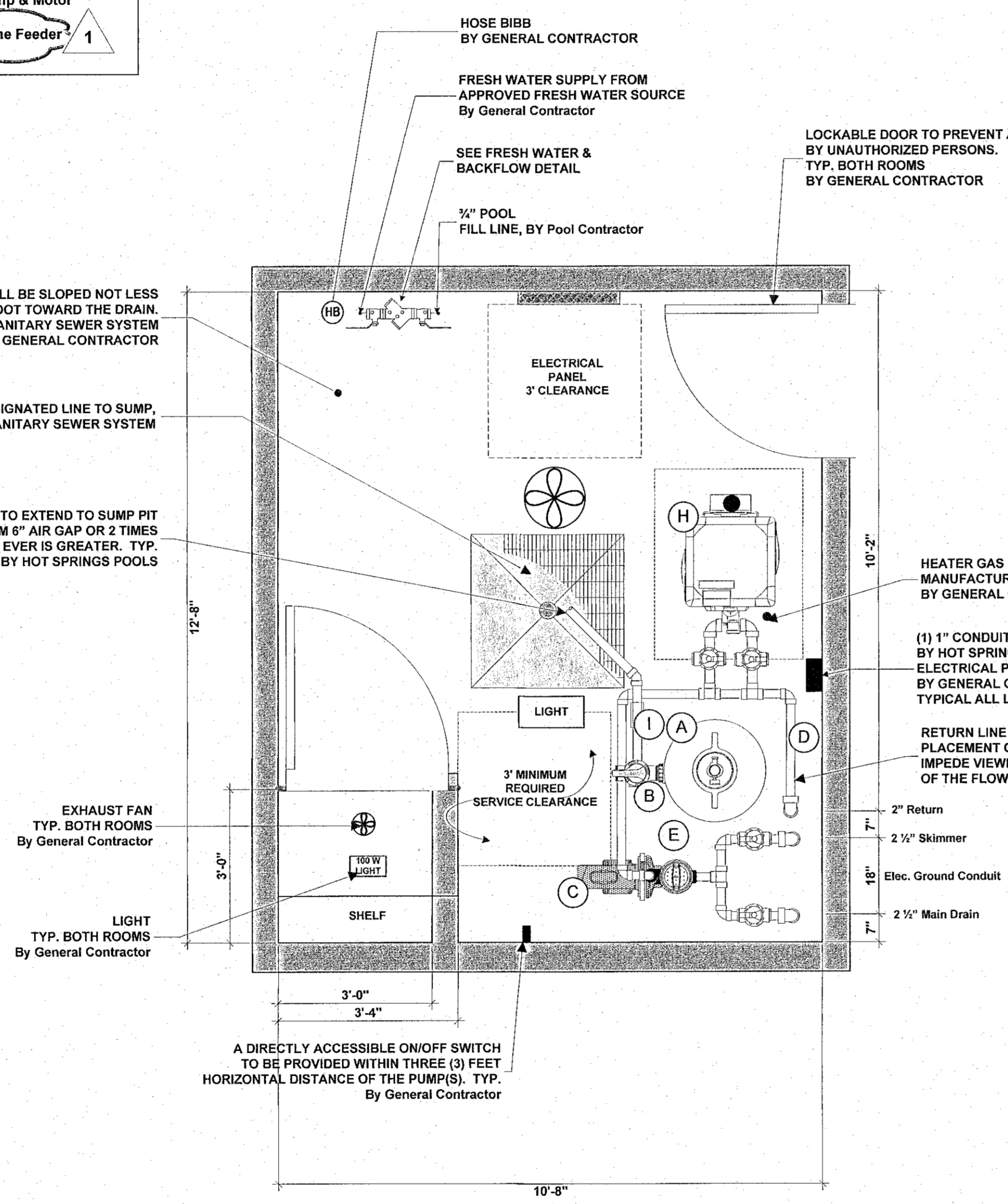
BY GENERAL CONTRACTOR.



FLOOR SHALL BE SLOPED NOT LESS THAN 1/4" PER FOOT TOWARD THE DRAIN. DRAIN CONNECTED TO SANITARY SEWER SYSTEM BY GENERAL CONTRACTOR

4" DESIGNATED LINE TO SUMP, CONNECTED TO SANITARY SEWER SYSTEM

FILTER BACKWASH LINE TO EXTEND TO SUMP PIT AND PROVIDE FOR MINIMUM 6" AIR GAP OR 2 TIMES THE PIPE DIAMETER, WHICH EVER IS GREATER. TYP. BY HOT SPRINGS POOLS



EQUIPMENT & CHEMICAL ROOM LAYOUT
 SCALE 1/2" = 1'

EQUIPMENT BONDING PER NEC ARTICLE 680 AND RELEVANT LOCAL ELECTRICAL CODES. COPPER CONDUCTOR NOT LESS THAN 8 AWG

NOTE:
 ALL PUMPS SHALL BE INSTALLED IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (NEC)

NOTE:
 ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS

NOTE:
 ELECTRICAL DATA IS FOR COORDINATION AND INFORMATION ONLY

EQUIPMENT ELECTRICAL REQUIREMENTS				
QTY	DESCRIPTION	VOLTS	AMPS	SVC. FACTOR
1	500 Watt Underwater Pool Light	120	4.2	
POOL FILTRATION				
QTY	DESCRIPTION	VOLTS	AMPS	SVC. FACTOR
1	1 HP Challenger® Pump & Motor	115/208-230	16.0/7.8-8.0	1.65
1	MasterTemp® 250,000 BTU, Natural Gas Heater	120/240	15	

