

NOTE: ALL LUMBER IN CONTACT WITH GROUND SHOULD BE PRESSURE TREATED AND LABELED "FOR GROUND CONTACT". PLYWOOD SHOULD BE LABELED "EXTERIOR GLUE".

SOLAR GREENHOUSE

GREENHOUSE MAY BE BUILT AS SHOWN WITHOUT USING SOLARHEAT OPTIONS

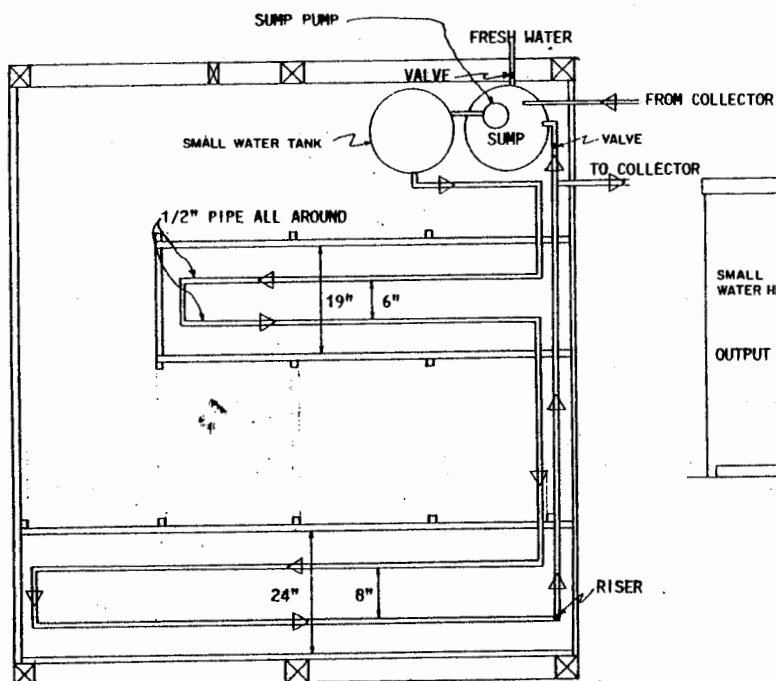
- * GREENHOUSE MAY BE EXPANDED TO EAST SIDE W/ APPROPRIATE EXPANSION OF SOLAR COLLECTOR.
- * GREENHOUSE MAY BE RAISED FOR MORE HEAD CLEARANCE, HOWEVER FOR EVERY 2' THE ROOF IS RAISED, THERE WILL BE A 25% INCREASE IN THE HEAT REQUIRED.



SOLAR HOBBY GREENHOUSE

ENGINEER B. BRANCH	SCALE NOTED
DRAWN BY J. BERGERON	SHEET 1 OF 3
TRACED BY	DATE NO. 48-12

CAUTION: BECAUSE OF TYPICAL WINTER CLOUD COVER, SOLAR HEAT ALONE CANNOT PROTECT PLANTS IN LOUISIANA. SOME BACK UP HEAT WILL BE REQUIRED. THESE SOLAR IDEAS ARE OFFERED ONLY TO ASSIST THOSE WHO WISH TO EXPERIMENT WITH SOLAR HEAT - NOT AS A GENERAL RECOMMENDATION FOR GREENHOUSE GROWERS. AT THIS TIME SOLAR HEATING IS NOT ECONOMICALLY FEASIBLE FOR COMMERCIAL GREENHOUSES



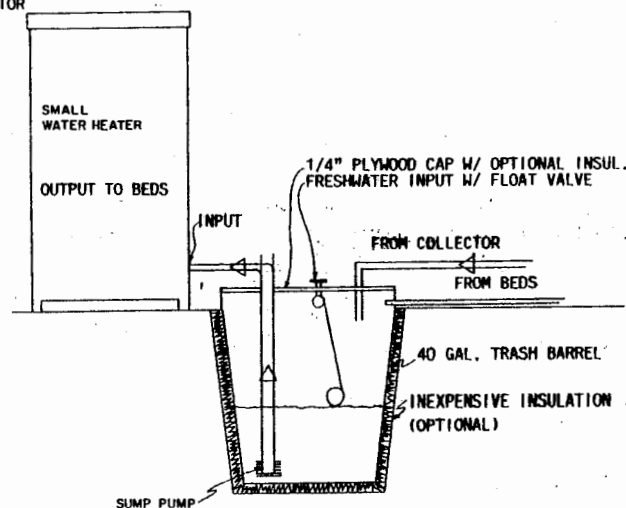
PLUMBING DIAGRAM

NOTES:

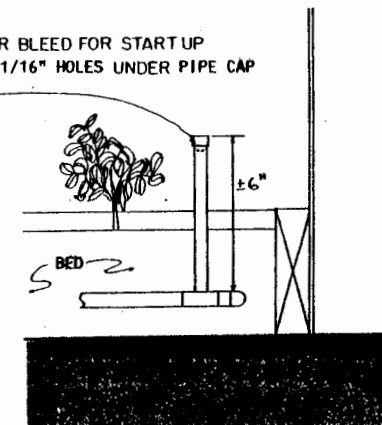
SMALL (1/10 HP OR LESS) SUMP PUMP CAN BE USED TO CIRCULATE WATER THROUGH BED HEATING PIPES. WATER HEATER AND COLLECTOR.

SOLAR COLLECTOR VALVE SHOULD BE OPENED AFTER SUNSET AND CLOSED AFTER SUNRISE THIS FORCES CIRCULATING WATER THROUGH THE SOLAR SYSTEM. OPENING THE VALVE ALLOWS WATER TO FLOW DIRECTLY TO THE SUMP WITHOUT GOING THROUGH THE COLLECTOR. IT SHOULD ALSO ALLOW THE COLLECTOR TO DRAIN AND AVOID FREEZING.

THE WATER HEATER PROVIDES BACK UP TO SOLAR COLLECTOR WHEN SKIES ARE OVERCAST OR AT NIGHT. IF SOLAR COLLECTOR IS NOT DESIRED, ELIMINATE VALVE AND OUTSIDE COLLECTOR PLUMBING. HEAT WATER WITH WATER HEATER ONLY.



AIR BLEED FOR STARTUP
4 1/16" HOLES UNDER PIPE CAP



RISER DETAIL

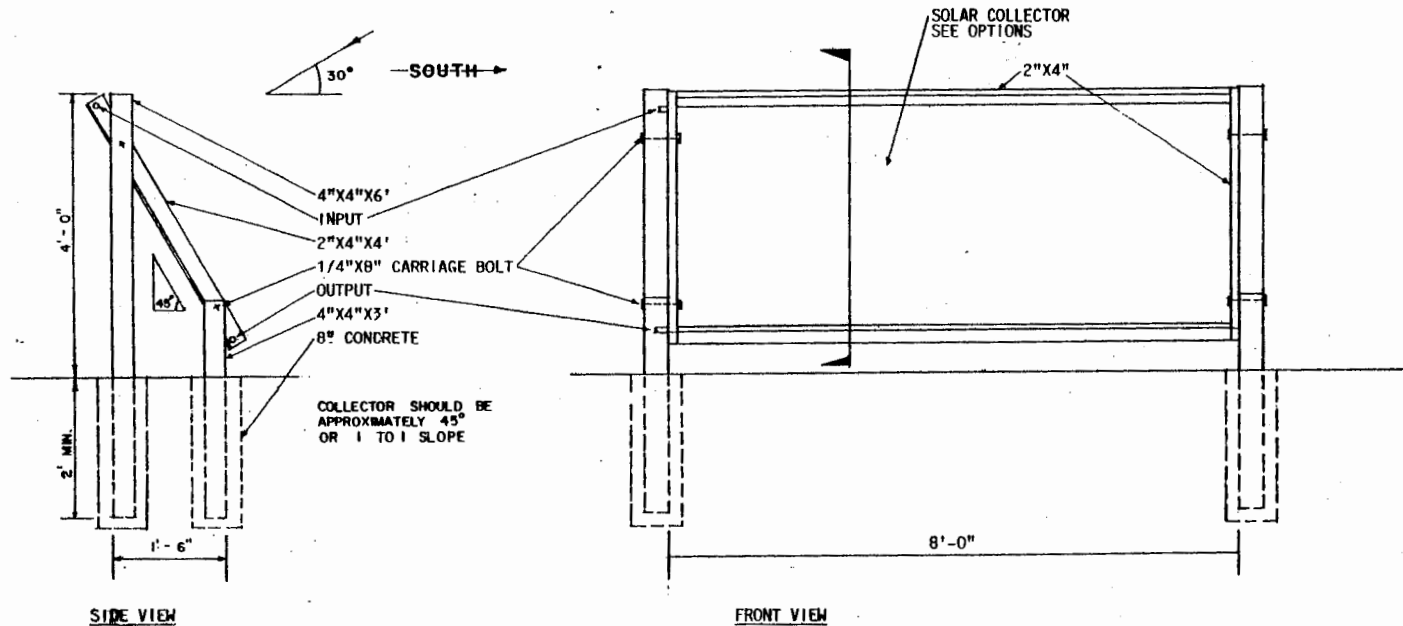
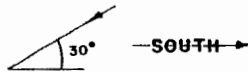
WATER HEATED PIPES MAY NOT GIVE SUFFICIENT HEAT FOR PLANTS WHICH ARE NOT IN BEDS. BACK-UP AIR HEAT MAY BE DESIRABLE (SET @ 55° OR MINIMUM AIR TEMPERATURE). THE SOLAR COLLECTOR SHOULD HAVE THE SAME AREA AS THE FLOOR AREA OF THE HOUSE (ie 1 S.F. OF GREENHOUSE FLOOR AREA = 1 S.F. OF COLLECTOR)



SOLAR HOBBY GREENHOUSE

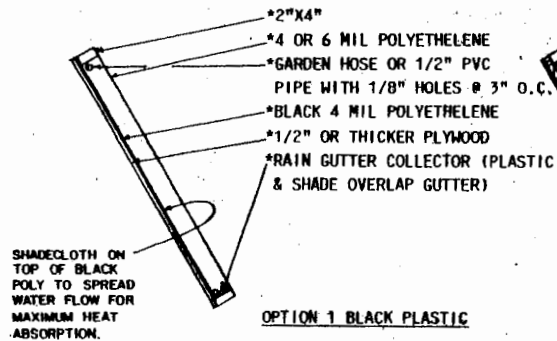
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MAXIMUM VERTICAL ANGLE OF SUN ON
DECEMBER 21 IS APPROXIMATELY 30°
ABOVE THE HORIZON AT NOON.

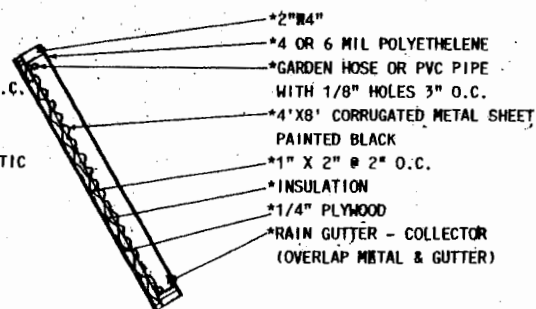


SIDE VIEW

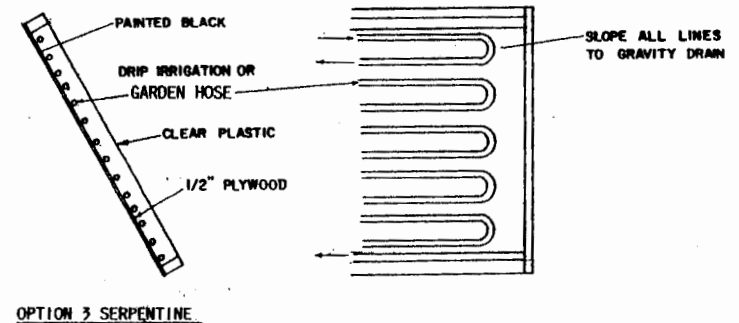
FRONT VIEW



OPTION 1 BLACK PLASTIC



OPTION 2 CORRUGATED METAL



OPTION 3 SERPENTINE



SOLAR HOBBY GREENHOUSE

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