

**Heat Loss - With Frost Proof Shallow Foundation - Crawl Space w/ Uninsulated First Floor Joists**

	SF		Degree Days	Delta T low temp to 65 degrees	DD adj for soil temp vs air temp	R Value Conc Foundation Wall, rim joist sidings, plantings, air films	BTU per yr		Equiv. Gal Oil
First Floor Plate uninsul	900	Air temp	7000	70	100%	7000	1	151,200,000	1,374.55
Energy generated from earth in crawlspace	900		7000	40	57%	4000	1	43,200,000	392.73
Net heat loss base case uninsulated crawl space							Net loss uninsul	108,000,000	981.82
First Floor Plate with FPSF	900	50	7000	40	57%	4000	1	86,400,000	785.45
3 feet above ground inc rim joist	360	Air temp	7000	40	57%	4000	35	987,429	8.98
		to crawlspace at 50							
<b>Heat Loss FPSF</b>								<b>20,612,571</b>	<b>-</b>
<b>Energy Savings from Frost Proof Shallow Foundation</b>								<b>87,387,429</b>	<b>794.43</b>
<b>Cost Savings from Frost Proof Shallow Foundation</b>									<b>\$ 2,939</b>

Payback would be shorter due to savings from reduced infiltration, reduced water / moisture, insect, and vermin in basement and building