

# Cambridge Case Study

## Distribution Center

Bethlehem, PA



### BUILDING DETAILS

**Size:** 579,000 sq.ft. x 38 ft. High  
**Construction:** R-19 Roof  
 R-11 Walls above 10'  
 R-1.5 Walls below 10'

### OPERATING CONDITIONS

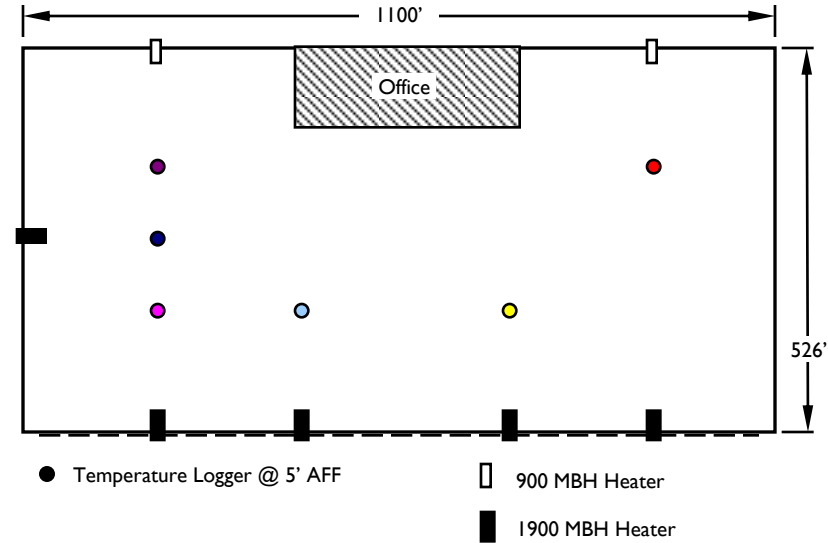
**Operating Hours:** 24 hrs/day 7 days/wk  
**Design Temperature:** Unknown  
**Thermostat Settings:** 55°  
**Average Temperature:** 55°  
**Heating System:** Cambridge Space Heaters  
 5 @ 1900 MBH  
 2 @ 900 MBH  
 Thru wall mounting

### CALCULATED OPERATING COSTS \*

for 30 year (1971-2000) average heating seasons

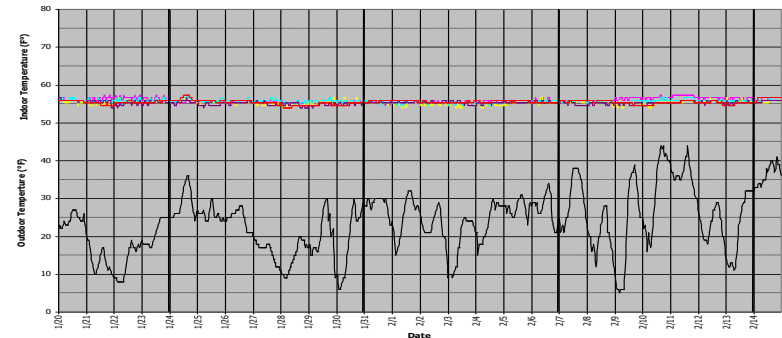
Indoor Temp	HDDs	@ \$0.75 / therm	@ \$1.00 / therm	@ \$1.25 / therm
50°	2,489	\$0.06 / ft <sup>2</sup>	\$0.06 / ft <sup>2</sup>	\$0.07 / ft <sup>2</sup>
55°	3,405	\$0.08 / ft <sup>2</sup>	\$0.10 / ft <sup>2</sup>	\$0.13 / ft <sup>2</sup>
60°	4,468	\$0.10 / ft <sup>2</sup>	\$0.13 / ft <sup>2</sup>	\$0.17 / ft <sup>2</sup>
65°	5,684	\$0.13 / ft <sup>2</sup>	\$0.17 / ft <sup>2</sup>	\$0.21 / ft <sup>2</sup>

\* based on actual 1999-00 consumption of 54,224 therms for 3,108 Heating Degree Days



### DATALOGGER GRAPH

**Logging period:** 1/20/00 - 2/14/00  
**Logging interval:** 30 minutes



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