



HVAC Life-Cycle Cost Comparison Cass School District 63

The Facilities and Finance Committees were both in unanimous support of the geothermal option. In addition to long-term energy savings, life-cycle costs are the most important consideration, as this takes into account the initial cost of the replacement system, expected maintenance costs, 20-year equipment replacement costs and residual value at the end of a 40-year cycle. Here is the life-cycle cost comparison of three options studied.

Location	Installation	Life Cycle	Grand Total
Option 1*			
Concord	4,758,960	8,950,000	13,708,960
Cass	5,732,320	10,500,000	16,232,320
Total	10,491,280	19,450,000	29,941,280
Option 2*			
Concord	4,919,120	6,700,000	11,619,120
Cass	6,895,400	7,550,000	14,445,400
Total	11,814,520	14,250,000	26,064,520
Recommended Option 3*			
Concord	5,408,240	5,150,000	10,558,240
Cass	6,444,360	6,700,000	13,144,360
Total	11,852,600	11,850,000	23,702,600
Cost Comparison			
Option 3 vs. Option 1	12.98%	-39.07%	-20.84%
Option 3 vs. Option 2	0.32%	-16.84%	-9.06%

Option 1* - Direct replacement with modern version of existing systems

Option 2 Concord* - Packaged VAV rooftop units, hot water boiler system

Option 2 Cass* - New 4-pipe hot water/chilled water system

Recommended Option 3* - Full geothermal system at both schools

For more details and information, please visit
www.cassd63.org/domain/309 or scan the QR code.

