

► Whitestone Report

Evaluate the Cost-Savings of Outsourcing HVAC Maintenance for an Office Park in Washington DC

Outsourcing M&R activities is a growing trend in facilities management. Detailed cost comparisons can reveal the potential cost savings in handing the keys to a contractor--or identify those areas more efficiently served by an inhouse staff. This study showed no long-term savings in shifting HVAC maintenance to contract.

For this evaluation, the MARS Facility Maintenance Cost Forecast Systems was used to focus on maintenance costs of four rooftop air conditioning units over a 50-year planning period. Maintenance tasks related to rooftop units were assigned to inhouse staff and then were used to forecast a long-term average cost; the process was then repeated using contract staff. The comparison showed no appreciable difference in average annual costs of \$.43 to .45 per gross square foot of building space, but did suggest that contract staff was more cost-effective at PM work, while inhouse staff was less expensive for renewal and replacement. Note that unscheduled maintenance accounted for 80 percent of PM and minor repair estimates (roughly 45 percent of total costs) in both scenarios.

Key Assumptions

HVAC M&R Costs*					
Evaluation of Contract and Inhouse Staff Costs for a Washington DC Office Park					
	PM & Minor Repair	Renewal & Replacement	Average M&R Costs		
			Annual Costs	As % of Replacement Value	Costs per gsft.
M&R Approach:					
Inhouse Staff	\$10,521	\$17,163	\$27,684	1.01%	\$0.43
Contract	\$7,234	\$21,803	\$29,037	1.06%	\$0.45

* All costs expressed in undiscounted \$1998

- Material and Labor costs, including inhouse staff salaries and contract labor rates, were taken from the *Whitestone Building Maintenance and Repair Cost Reference 1998*; a markup rate of 2 on basic wages was used for calculating inhouse shop rates.
- Office park had a total building area of 65,000 gross square feet and replacement value of \$2,744,300.
- HVAC maintenance task costs were estimated using labor rates of an HVAC technician, for the inhouse scenario, and a plumber for the contract scenario.
- MARS unscheduled maintenance multipliers were set at 5, so that approximately 80 percent of PM & minor repair costs were unscheduled.