



Facilities Maintenance

Summary

The Sarasota County School District is using 14 of 22 of the Best Practices relating to facilities maintenance. The district’s performance is particularly strong in areas relating to health and safety and energy management. In addition, the Facilities Services Department has done a credible job of maintaining district facilities in the face of ever-shrinking budgets. To use the remaining best practice standards and ensure the performance, efficiency, and effectiveness of its facilities maintenance services, the district must substantially improve its work order data collection and analysis and institute better performance measurement systems.



As shown in Exhibit 8-1, the district has an opportunity to reduce costs and make investments in the facilities maintenance area. Determining whether to take advantage of this opportunity is a district decision and should be based on many factors including district needs, public input, and school board priorities. If the district implements this action plan, it would be able to redirect the funds to other priorities, such as putting more money into the classroom or addressing deficiencies identified in this report.

Exhibit 8-1 Our Review Identified A Way the District Could Reduce Costs in the Area of Facilities Maintenance

Best Practice Number	Fiscal Impact: Cost Savings (Increased Costs)						Total
	Year 2003-04	Year 2004-05	Year 2005-06	Year 2006-07	Year 2007-08		
6 Revise the management structure in the trades areas	\$33,400	\$66,800	\$66,800	\$66,800	\$66,800	\$300,600	

Background

The Sarasota County School District’s Facilities Services Department is responsible for all aspects of preventive, routine, and emergency upkeep for the district’s 35 school sites and several other district facilities. In total, the department maintains approximately 6.8 million square feet of building space.

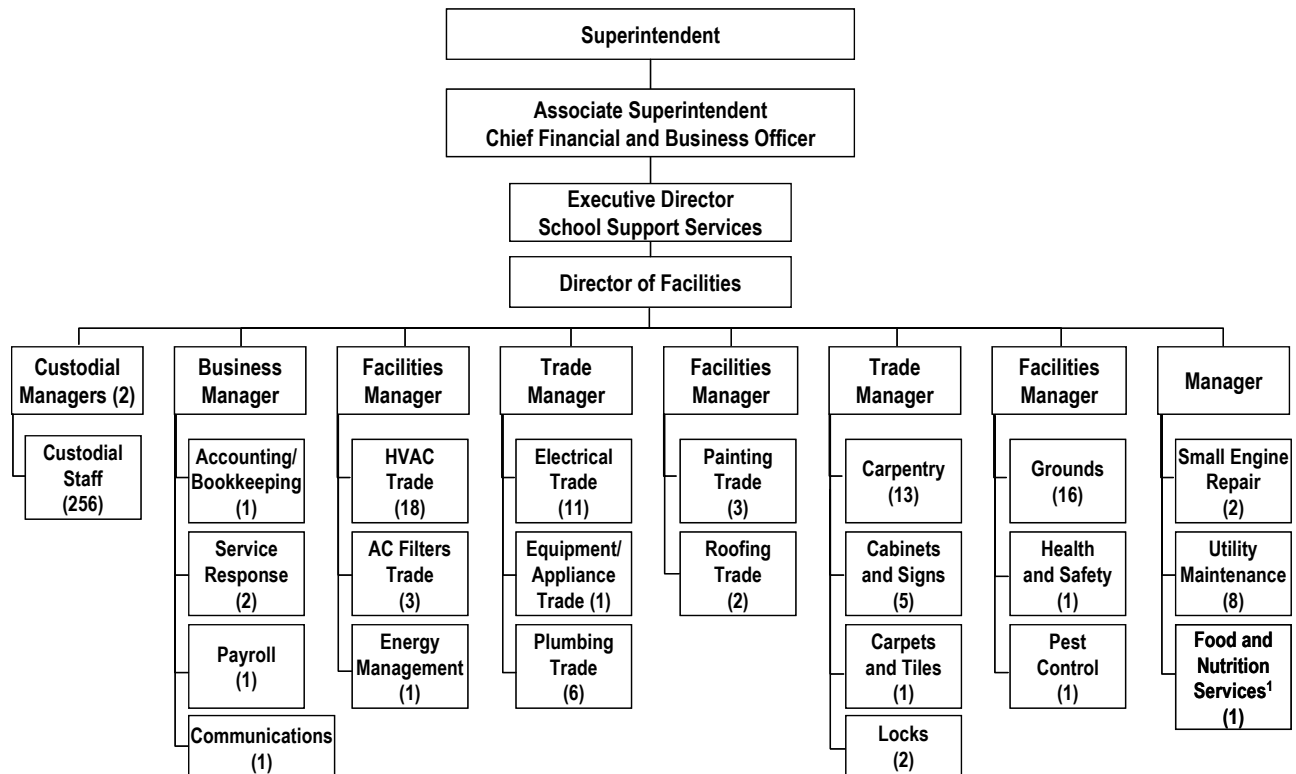
Facilities Maintenance

Additional responsibilities include the maintenance of all grounds and athletic fields, and the installation and relocation of portable classrooms.

The Facilities Services Department employs approximately 366 people in various skilled trades, clerical, supervisory and maintenance support positions. The department had an adopted operating and capital budget of \$12.8 million for the 2002-03 fiscal year.

The department is headquartered at 7889 Fruitville Road in Sarasota and is managed by a director of facilities services. This manager reports to the executive director of school support services who in turn reports to the associate superintendent chief financial and business officer. As shown in Exhibit 8-2, the department is divided into eight sections: custodial services, business operations, and six trades units. Two custodial managers oversee the custodial services section and directly manage the district’s 256 custodians. The department’s business manager oversees business operations and supervises the facilities services office, its accountants/ bookkeepers, and the work order call response unit. The business manager also maintains the district’s computerized work order system. In addition, three trades managers and three facilities managers oversee the department’s six trades areas. (Although these managers have different titles, they serve in similar capacities.) Each is responsible for at least two separate trades areas. In addition, the three trades managers and three facilities managers each serve as the primary departmental liaison to about a half dozen school sites.

**Exhibit 8-2
The Sarasota County School District’s
Facilities Services Organizational Structure Is Hierarchical**



¹ The food & nutrition services technician is funded by the Food Services Department.

Source: Sarasota County School District.

Activities of particular interest

The district's approach to service provision in facilities services is customer-oriented. Each year, facilities services trades managers meet with each principal to establish the next year's maintenance priorities for the principal's school site. This input from the principals is used by the department in the budgeting process. In addition, the trades managers meet regularly—at least monthly—with each principal to update priorities, provide status reports on outstanding work orders, and to get feedback from the principals on the department's performance. Although this process is informal by nature, and therefore of limited use from an analytic standpoint, it does provide a high level of service to school principals and keeps these key “customers” involved in the maintenance process.

The district has also recently implemented an “on-the-job” training program for its heating, ventilation, and air conditioning (HVAC) trades staff. Each month, one HVAC trades worker is assigned to work directly with the district's energy management controls specialist. The HVAC worker shadows the specialist and receives training in the use of the district's computerized energy monitoring and control system. By using the system, district HVAC employees can remotely diagnose HVAC problems. Some problems can even be corrected remotely. All HVAC trades workers are equipped with their own laptop computer. Once trained by the energy management specialist, these employees can log into the system and prediagnose problems as HVAC work orders come in. The training program has greatly increased the effectiveness of HVAC trades workers.

Conclusion and Recommendations

Summary of Conclusions for Facilities Services Best Practices

Practice Area	Best Practice	Using Best Practice?	Page No.
Program Direction and Accountability	1. The district's maintenance and operations department has a mission statement and goals and objectives that are established in writing.	No	8-6
	2. The district has established and implemented accountability mechanisms to ensure the performance and efficiency of the maintenance and operations program.	No	8-7
	3. The district obtains and uses customer feedback to identify and implement program improvements.	No	8-9
	4. The district has established procedures and staff performance standards to ensure efficient operations.	No	8-10
	5. The department maintains educational and district support facilities in a condition that enhances student learning and facilitates employee productivity.	No	8-12
Organizational Structure and Staffing	6. The district regularly reviews the organizational structure of the maintenance and operations program to minimize administrative layers and assure adequate supervision and staffing levels.	No	8-14
	7. Complete job descriptions and appropriate hiring and retention practices ensure that the maintenance and operations department has qualified staff.	Yes	8-16
	8. The district provides a staff development program that includes appropriate training for maintenance and operations staff to enhance worker job satisfaction, efficiency, and safety.	Yes	8-17
Resource Allocation and Utilization	9. The administration has developed an annual budget with spending limits that comply with the lawful funding for each category of facilities maintenance and operations.	Yes	8-18
	10. The district accurately projects cost estimates of major maintenance projects.	Yes	8-19
	11. The board maintains a maintenance reserve fund to handle one-time expenditures necessary to support maintenance and operations.	Yes	8-19
	12. The district minimizes equipment costs through purchasing practices.	Yes	8-19
	13. The district provides maintenance and operations department staff the tools and equipment required to accomplish their assigned tasks.	Yes	8-20
	14. The district uses proactive maintenance practices to reduce maintenance costs.	Yes	8-20
	15. The maintenance and operations department identifies and implements strategies to contain energy costs.	Yes	8-21
	16. The district has an energy management system in place, and the system is maintained at original specifications for maximum effectiveness.	Yes	8-22

Practice Area	Best Practice	Using Best Practice?	Page No.
	17. District personnel regularly review maintenance and operation's costs and services and evaluate the potential for outside contracting and privatization.	No	8-22
Information Management	18. A computerized control and tracking system is used to accurately track work orders and inventory.	No	8-24
	19. The maintenance and operations department has a system for prioritizing maintenance needs uniformly throughout the district.	Yes	8-26
Health and Safety	20. District policies and procedures clearly address the health and safety conditions of facilities.	Yes	8-27
	21. The school district complies with federal and state regulatory mandates regarding facility health and safety conditions.	Yes	8-27
	22. The district is aware of and prepared for the permitting and inspection requirements of the Florida Building Code.	Yes	8-28

PROGRAM DIRECTION AND ACCOUNTABILITY

Best Practice 1: Not Using

The district's Facilities Services Department has an inadequate mission statement and its written goals and objectives are not measurable.

Like other publicly funded entities, a school district should be held accountable for and provide information to parents and other taxpayers on the performance and cost of its major programs and support services, including facilities maintenance. To accomplish this, a school district should have an accountability system that includes a mission statement, clearly stated goals, and measurable objectives that identify the expected outcomes of the facilities maintenance program. The program's goals and objectives should be in writing, tied to the district's strategic plan, and focused on operating facilities in a cost-efficient manner while allowing for maximum utilization of facilities. Maintenance program goals and objectives also should include comprehensive projections of the size of the necessary work force, the amount and types of equipment required, and anticipated long-term budget requirements. These projections should be based on a survey of the physical condition of the facilities and equipment, and should identify repair or replacement needs of district facilities.

The mission statement of the Sarasota County School District's Facilities Services Department is overly broad and vague with its key phrase being "to manage and improve the physical assets of the School District in order to provide the proper support" to academic programs. It contains no goals and objectives that relate directly to any discernable maintenance program, and its only measurable aspect—"85% or more of students, parents and staff will perceive the school environment as safe and orderly"—has never been assessed. Outcomes are communicated through an annual priority-setting process, which starts with face-to-face meetings with all principals and ends with a reprioritization after budgets are set. The results of this priority setting process, however, are not documented, and measurable outcomes are not developed from the informal goals discussed at these meetings.

The lack of a clearly defined mission statement and concrete measurable objectives and priorities makes it difficult for the department to develop a budget that relates manpower, budget, and equipment with short- and long-term needs. Instead, "asset preservation" meetings held with the principals and their trades managers drive the annual budget preparation process. On its face, this process, completed annually, is a zero-based approach to budgeting. However, because the district does not go through a similar process for its long-term maintenance planning, it is only useful for prioritizing its annual budget allocation, not for strategic planning purposes.

Management is aware of the need to improve its mission statement, goals and objectives, and resource allocation process. Accordingly, to address these issues, it is developing a "management plan" which will include more specific measurable goals.

In completing its management plan, the district should develop a more appropriate mission statement and establish performance measures that include work order clearance rates, customer satisfaction standards, and cost containment measures, among other tracking categories. Action Plan 8-1 details the steps the district should take.

Action Plan 8-1

We recommend that the district establish a more appropriate mission statement for its maintenance operations and create measurable goals and objectives that correspond to this mission.

Action Needed	<p>Step 1. Develop a new mission statement that reflects the importance of the physical learning environment to the district's performance in educating students.</p> <p>Step 2. Develop measurable goals and objectives for custodial services, each trades area, energy management, and all other discrete maintenance programs.</p> <p>Step 3. Obtain comments from a broad range of maintenance employees, custodians, and department "customers," such as principals, teachers, parents and students, prior to finalizing goals and objectives.</p> <p>Step 4. Establish a periodic mechanism for collecting and assessing performance data against the established measurable goals and objectives.</p> <p>Step 5. Link the performance measurement and budget allocation processes.</p>
Who Is Responsible	Director, Facilities Services
Time Frame	June 30, 2004

Source: Berkshire Advisors, Inc.

Best Practice 2: Not Using

The district has not implemented sufficient accountability mechanisms to monitor the performance and efficiency of the maintenance operations program.

An effective accountability system includes performance and cost-efficiency measures, and interpretive benchmarks, such as comparisons to adjoining districts or an industry standard, to evaluate the program and use these in management decision-making. By periodically comparing established benchmarks to actual performance, a district can determine if changes are needed in its maintenance program to improve efficiency and effectiveness, reduce costs, and assess whether alternative service delivery methods, such as privatization, may be cost-effective. Measures that should be considered for evaluating the maintenance program include costs per square foot (including energy use), full-time staff per square foot of facility, and costs per student.¹ As part of its accountability system a district also should establish and implement strategies to continually assess the reliability of program performance and cost data. In addition, school board members should periodically receive performance information that helps them assess the efficiency and effectiveness of its maintenance program.

The Sarasota County School District does a credible job of managing the performance of contractors. While the department does not conduct formal performance evaluations, contractors are not paid until the corresponding work order is closed out and signed off as completed. Maintenance representatives have also begun meeting with select contractors—mainly those with which the district has experienced problems—prior to any work being assigned in order to better explain what is expected from them. Management has plans to establish this process for all contractors in the near future.

While this process for managing contractors is effective, the Sarasota County School District has not implemented sufficient accountability mechanisms to monitor the performance and efficiency of the maintenance operations program. There are a couple of improvements the district could make. First, the Facilities Services Department does not currently track and evaluate program performance on a regular basis. This is in part caused by inadequacies with the work order system. For example, the work order system does not allow managers to compare the cost of completing a certain type of work order by in-

¹ All Florida school districts are required to report operations and maintenance costs and energy usage to the DOE annually, and this information is readily available to school districts for comparative purposes.

house staff to that of contracted labor. However, a larger problem results from the fact that the district has yet to implement the management features that the work order system does have. For example, the work order system has the ability to calculate cost and time projections for routine work orders but this system capability is not used. In addition, while the work order system has the ability to distinguish between nonproductive time and actual work time on individual work orders, there is resistance among staff to include that information on work orders for fear that the information will be used for personnel evaluations. Moreover, maintenance managers do use the work order system to periodically track clearance and backlogs because they are often weeks behind in getting them closed out. Thus, the data in the system has limited usefulness for tracking performance. As a result, the managers generally use the information only to check the status of individual work orders.

The Facilities Services Department has not yet established program performance measures, so no strategy is currently in place to assess the reliability of collected data. The work order system does have retrievable time tracking and completion data, and the department has periodically validated that data for accuracy. However, cost estimates are not entered into the system, and actual costs on completed projects are not entered consistently. More importantly, because performance expectations have not been established it is difficult to use the work order system as a management tool. Without a clear expectation for how much time a particular maintenance job should have taken, for example, managers cannot question employees about why it took them significantly longer (or significantly less time) to complete a given project.

Management should establish and implement a performance measurement system that allows managers to accurately track and evaluate performance. This system should also include accountability standards that staff and managers are be evaluated against. Action Plan 8-2 details the steps the district should take.

Action Plan 8-2

We recommend that the district establish and implement a measurement and accountability process to track program and staff performance and efficiency.

Action Needed	Step 1. Implement additional data collecting capabilities of the work order system.
	Step 2. Establish expectations of the cost, staffing, and time required to complete various work plan tasks.
	Step 3. Train managers on how to use the work order system to more effectively monitor the performance of employees.
	Step 4. Track and publish performance data for each operational unit.
	Step 5. Implement a process for incorporating performance data into the periodic evaluation of department managers.
	Step 6. Conduct random periodic reviews of work order paper work and computer system data to ensure accuracy.
Who Is Responsible	Director, Facilities Services; Business Manager, Facilities Services
Time Frame	June 30, 2004

Source: Berkshire Advisors, Inc.

A second way the district could improve its accountability mechanisms is to focus more attention on evaluating maintenance and custodial staff. At present, for example, there is no process in place to evaluate work orders completed by internal trades staff for quality or efficiency. Indeed, personnel evaluations for trades staff are only conducted when there is a significant problem. Likewise, custodians do not have their work evaluated in terms of cleaning standards, time management, or other dimensions affecting the cleanliness of the schools. The district’s current contract with the union representing custodians calls for custodial personnel evaluations once every three years. These evaluations are routinely conducted, but they focus on attendance, attitude and discipline issues, not job effectiveness.

Managers and supervisors report that there is little incentive to conduct personnel evaluations on a more frequent basis because of the contractual difficulty of disciplining staff. The process is labor intensive and time-consuming and rarely results in the termination of problem employees.

The district should establish performance standards for maintenance workers and custodians and assess performance against these standards regularly. Action Plan 8-3 details the steps the district should take.

Action Plan 8-3

We recommend that the district establish performance standards for maintenance workers and custodians and assess performance against these standards as part of periodic personnel evaluations.		
Action Needed	Step 1.	Establish quality and efficiency standards for each trades area and for custodians
	Step 2.	Establish performance goals against the standards for each employee
	Step 3.	Amend the performance evaluation process to include supervisory ratings of employees against the established performance and productivity standards on at least an annual basis
Who Is Responsible	Director, Facilities Services; Trades Managers, Facilities Services; Custodial Managers, Facilities Services	
Time Frame	June 30, 2004	

Source: Berkshire Advisors, Inc.

Best Practice 3: Not Using

The district does not use customer feedback to systematically identify and implement program improvements.

Customer feedback drawn from surveys is another tool to evaluate the efficiency and effectiveness of the maintenance program. Customer evaluation surveys should ask stakeholders, such as principals and school-based employees, to provide their perceptions of response times, work order completion times, quality of work, overall facility appearance and cleanliness, and the professionalism of employees in the maintenance program.² This type of survey should be performed at least annually and summary results should be shared with maintenance employees, district managers, the superintendent, and the school board. If the customer surveys identify problems, program managers should assess the situation, prepare corrective action plans for any identified problem areas, and make program improvements.

In the Sarasota County School District, maintenance leaders see the principals—who are the managers of each school—as their primary customers. This is a reasonable viewpoint since other “users” of the schools (e.g., staff, teachers, parents, and students) hold the principals accountable for the condition of school buildings. To help ensure the needs of these primary customers are understood and addressed, the department’s six trades/facilities managers are each assigned as the facilities department’s primary liaison with about six schools. They meet with the principals of their schools at least monthly to determine if service expectations are being met, to receive feedback on staff performance, and to review priorities. Through these relationships the Facilities Services Department obtains and uses feedback from principals in managing their operations. Though informal in nature, this process and feedback is useful.

While the district has taken steps to establish strong working relationships with the principals, the district does not use customer feedback to systematically identify and implement program improvements. Although it does receive feedback from its customers, the department does not collect it in a structured

² A district may also survey students, parents, or other stakeholders as may be appropriate.

way, the feedback is often not in writing, and much of it never is communicated to the facilities services director. As a result, poor practice can be repeated because there is no system for disseminating information throughout the department. Similarly, other department personnel may not replicate exemplary methods of dealing with recurring problems. A better approach to collecting systemic information on customer feedback is to survey customers on at least an annual basis. (While the district does conduct an annual “climate survey” that provides a wealth of helpful information to the district as a whole, climate survey questions do not specifically relate to facilities maintenance services.)

The district should establish a comprehensive customer feedback survey process to aid in management decision-making. Action Plan 8-4 details the steps the district should take.

Action Plan 8-4

We recommend that the district implement a comprehensive customer feedback survey process and use the feedback in the management decision-making process.

Action Needed	Step 1.	Establish a customer feedback form to be completed by school personnel (i.e., principals or assistant principals) for certain categories of work orders. ¹
	Step 2.	Track customer service feedback on at least a monthly basis, by trade and program area, and provide that data to each trades manager, foreperson and lead person.
	Step 3.	As part of the annual Asset Preservation interview process with each school principal, establish a written service assessment form for principals, teachers, students and parents to anonymously rate the level of service they have received from the Facilities Services Department.
	Step 4.	Incorporate customer satisfaction goals, by trades area and program, into the performance evaluation process for maintenance managers.
	Step 5.	Use customer satisfaction data to help determine where training or other corrective action is needed.
Who Is Responsible	Director, Facilities Services; Business Manager, Facilities Services	
Time Frame	June 30, 2004	

¹ Establishing a dollar or time threshold would be an appropriate method of limiting the data collection process to “significant” work order projects.

Source: Berkshire Advisors, Inc.

Best Practice 4: Not Using

The district’s maintenance department has not established written procedures and staff performance standards to ensure efficient operations.

Up-to-date procedures, when coupled with appropriate district policies, ensure that activities are carried out in an efficient and effective manner and that districts are in compliance with federal and state laws. In addition, written procedures serve as a district’s institutional memory for key processes and as such help to minimize disruption to essential services and reduce the need for costly training and assistance due to staff turnover. Program management should develop written procedures and employee performance standards with input from maintenance managers, trades and custodial employees, and human resource professionals. Procedures and standards should be developed utilizing a combination of national standards and local imperatives and adjusted for budgetary considerations. Performance standards serve as a basis for measuring how well the maintenance and custodial employees meet or adhere to board policies, and set clear expectations for job performance, giving managers tools that allow them to consistently evaluate employees.

The Sarasota County School District's Facilities Services Department does a good job of ensuring the equitable treatment of all district schools. This is accomplished through three primary means. First, the annual budgeting process, which starts with principals and trades managers assessing building needs, prioritizes health and safety items first and then "spreads around" principals' "wish list" items as funds permit. Second, district custodians are allocated based on a pre-established formula. Third, each school principal has a trades manager liaison he or she can call directly if concerns or questions arise during the year. While these efforts contribute to customer satisfaction levels, the district could better ensure equity in the system by adhering to reasonable performance standards or a rigorous assessment of priorities and needs. Implementing Action Plans 8-2 and 8-3 will allow management to monitor and evaluate program performance at the individual school level.

Another area for district improvement is in the documentation of maintenance related procedures and performance standards. The district has written maintenance procedures for some areas (e.g., building permitting, community use of schools, the hiring process, purchasing, health and safety, and energy use issues), and these are up-to-date and well communicated to staff. However, in other areas, such as custodial and trades staff operating procedures, standards are either nonexistent or staff were not able to locate copies. In addition, because there is no active web site for the Facilities Services Department, its procedures cannot be accessed remotely from the Internet. The only policies pertaining to facilities maintenance on the district's web site are board rules and do not approach the level of detail required for operating procedures.

In addition, as previously discussed, even where procedures have been established, these procedures do not include a statement of performance expectations and standards. As a result, no system exists to monitor performance against procedures and standards and to communicate problems to managers (and other staff) so these problems can be corrected or to communicate effective practices so effective employees can be commended.

As previously noted, Facilities Services Department managers report plans to develop more measurable performance standards as part of the department's new management plan. At a minimum, these standards, when developed, should include completion time standards for routine tasks, clearance rates for work orders, and minimum response time standards for emergencies. As these standards are developed they should also be integrated into the department's procedures manuals. In addition, when performance standards and procedures are developed and put in place as part of the new management plan, the department should consider developing a web site and placing results on that site or at least periodically reporting outcomes to the board and to principals in writing.

The district should establish written operating policies and procedures for all maintenance program areas and take steps to ensure policies and procedures are being followed. Action Plan 8-5 details the steps the district should take.

Action Plan 8-5

We recommend that the District establish written operating policies and procedures for all maintenance program areas, ensure that the policies and procedures are accessible to staff and the public, and implement a system for monitoring adherence to the standards.

Action Needed	Step 1. Identify all program areas without up-to-date policies and procedures. Step 2. Draft detailed operating procedures for these areas. Step 3. Incorporate performance standards developed in Action Plan 8-2 into the operating procedures. Step 4. Centralize within the Facilities Services Department all operating policies and procedures and periodically review them to ensure they are still relevant. Step 5. Publish a combined listing of maintenance policies and procedures (and performance standards) in manual form and supply all maintenance work sites and school sites with a copy of the manual. Step 6. Establish a maintenance services web site and place a downloadable version of the manual on the site. Step 7. Dedicate a portion of the website to reporting information on the department's performance against standards.
Who Is Responsible	Director, Facilities Services; Trades Managers, Facilities Services
Time Frame	June 30, 2004

Source: Berkshire Advisors, Inc.

Best Practice 5: Not Using

The district does not maintain its educational facilities in a condition that enhances student learning and facilitates school site employee productivity.

Comprehensive maintenance of the physical plant is critical to sustaining a suitable environment for teaching and student learning and to extending the useful life of a facility. Facilities should be maintained in a condition that supports efficient operation, maximum utilization, and provides appropriate working conditions for district employees. The district's maintenance program should include routine condition inspections, a preventive maintenance component, regularly scheduled repairs, and methods of responding to emergencies, plans for the modernization of building systems, facility enhancements, and general renovations as primary functions.

While many of the Sarasota County School District's schools are well maintained and generally clean, school site visits revealed several cleaning and maintenance concerns, especially among the older and larger school sites. Roughly half of the schools reviewed were in good or passable overall condition; the other half were unacceptable and in need of improvement. Even in some of the schools that were reasonably clean, it is clear that the district is making cleaning compromises, such as reducing the frequency with which bathrooms and locker rooms are cleaned and restocked during the day.

It is likely that part of the reason for the variation in school cleanliness is due to the custodial allocation formula the district uses, which does not take into account the age of each school. All things being equal, older schools are more difficult to keep clean. Buildings with old windows that don't seal properly allow outside dirt and dust into classrooms. Older plumbing fixtures leak more often than new ones. In addition, deferred maintenance and capital issues—such as termite damage, missing ceiling tiles, and mildew from flooding—have exacerbated cleaning problems in some schools. Yet the district's custodial allocation is based almost entirely on square footage with no modifications for school age. The custodial allocation formula should, therefore, be modified. The district should revise its custodial staffing allocation formula to account for the age of its school buildings. Action Plan 8-6 details the steps the district should take.

Action Plan 8-6

We recommend that the district revise its custodial staffing allocation formula to account for the age of each school.

Action Needed	Step 1.	Determine the average age of all district schools and the age of each school relative to that average age.
	Step 2.	Develop a weighting system that gives additional custodial support to older schools and takes away custodians from newer schools.
	Step 3.	Test the weighting formula in a sample of schools.
	Step 4.	Modify the weighting formula based on the results of the analysis performed in Step 3.
Who Is Responsible	Director, Facilities Services; Custodial Managers, Facilities Services	
Time Frame	January 1, 2004	

Source: Berkshire Advisors, Inc.

However, the difference in the cleanliness of district schools cannot completely be attributed to school age and the custodial staffing formula. Some custodians are simply not as effective or efficient at cleaning their workstations as others. In virtually all district schools, the custodial work is divided up among the cleaning staff by area. There is no incentive to improve work efficiency in cleaning one’s area. In fact, if a custodian finishes cleaning his workstations early, he is likely to be assigned additional work. As such, there is actually a perverse incentive to work to the “lowest common denominator,” or to the level of the least efficient worker. Schools with good custodial workers—those who take pride in doing a good job—manage to resist this urge and are generally better at cleaning their schools. To institutionalize the higher productivity of these better performing schools, the district should implement a task system which identifies daily cleaning tasks for each custodian each day based on standards for cleanliness and on what a custodian should be able to accomplish in one shift. Custodians would then be responsible for completing those tasks in the time allotted. If they finish early, they are “rewarded” for their productivity by being able to leave early while still receiving full pay for the shift. In many organizations, establishing a task system can increase productivity by 20% or more while reducing the number of hours employees work.

The district should implement a task system for custodians in order to increase cleaning efficiency at school sites. Action Plan 8-7 details the steps the district should take.

Action Plan 8-7

We recommend that the district implement a task system for custodians to improve cleaning efficiency in the schools.¹

Action Needed	Step 1.	Create cleaning stations for custodians based closely on the revised formula used to assign custodians to schools. ²
	Step 2.	Establish written cleanliness standards and expectations for each station.
	Step 3.	Allow custodians to leave as soon as their stations are completely cleaned, even if it is prior to the end of their shift.
	Step 4.	Periodically and randomly inspect custodial cleaning stations to ensure cleaning standards are being applied.
Who Is Responsible	Director, Facilities Services; Custodial Managers, Facilities Services	
Time Frame	June 30, 2004	

¹ This Action Plan will impact collective bargaining contracts.

² Prior to implementing this step, Action Plan 8-6 should be completed and the new staffing formula should be used to implement Step 1 of Action Plan 8-7.

Source: Berkshire Advisors, Inc.

Best Practice 6: Not Using

The Facilities Services Department’s organizational structure has not minimized administrative layers in the trades areas and is lacking adequate supervision in custodial management.

Well-run school districts are lean administratively and maximize funds available to support their primary mission, educating students. This requires districts to make the most effective use of funds allocated for administrative services, such as facilities maintenance. There is no “one” right way to organize and staff the facilities maintenance program. Critical factors that affect the structure of the maintenance organization include the number, ages, general condition, size (gross square feet), geographic distribution of a district’s physical facilities, and the scope of services that have been assigned to the department. In general, however, the organizational structure of the maintenance function should be relatively flat with appropriate spans of control. Such a structure will result in minimized administrative and managerial costs while providing sufficient managerial controls to ensure operations are properly carried out. Staffing needs to be to the level by which needed work is accomplished in an economical and efficient manner. It is expected in smaller districts with fewer staff will require staff to individually handle multiple areas of responsibility (such as facilities maintenance and transportation) that may be done by different individuals in larger districts.

Some features of the Sarasota County School District’s Facilities Services Department’s approach to managing its organizational structure are sound. For example, the current organizational chart reflects the existing structure of the department, and this structure has recently been reviewed and revised to better reflect current staffing levels. In addition, the department communicates organizational review findings and recommendations up the chain of command and ultimately to the school board.

However, there are several ways the Facilities Services Department’s could minimize administrative layers in the trades areas and improve supervision in custodial management. First, levels of supervision are inadequate in some areas, especially in the custodial area where two managers currently supervise 256 custodians. At five schools principals manage the custodial staff, but even at these schools most cleaning occurs during the second shift after the principals have left for the day. The primary reason custodial supervisors must oversee so many custodians is that all custodians are classified employees and are represented by the same bargaining unit. Consequently, head and lead custodians do not have the authority to discipline and evaluate other custodians and this work falls to the two custodial managers. Because the discipline process involves a great deal of paperwork, administrative steps, and meeting time, it is not often used. More often managers and supervisors use informal “coaxing” to encourage custodians to improve performance or “problem” custodians are transferred to other sites. To address this issue, the district should negotiate the removal of head custodians from the bargaining unit that also represents line custodians.

The district should remove head custodians from the classified category so they can effectively manage school-based custodians. Action Plan 8-8 details the steps the district should take. The district could implement this action plan within existing resources.

Action Plan 8-8

We recommend that the district remove head custodians from the classified category to enable them to effectively supervise other custodians.¹

Action Needed	Step 1.	Reclassify head custodian jobs as management functions.
	Step 2.	Rewrite discipline procedures to allow head custodians to administer disciplinary sanctions for problem employees.
Who Is Responsible	Chief Financial & Business Officer; Director, Facilities Services; Custodial Managers, Facilities Services	
Time Frame	June 30, 2004	

¹ This Action Plan will impact collective bargaining contracts.

Source: Berkshire Advisors, Inc.

Unlike the custodial area, supervisor/employee ratios in the trades areas were reviewed and amended over the past two years when the organizational structure was flattened and a layer of middle management was removed. The reorganization was intended to provide more direct supervision of the trades staff and reduce the number of schools for which each manager is directly responsible. However, the existing supervisor/employee ratios need further refinement. Direct management by the trades managers ranges from 5 staff to 22, and the ratio of non-field staff (managers and support staff) to total maintenance employees is high at almost 42%, meaning only 58% of all maintenance staff is in the “field.” To address this situation the management and supervisory structure for the trades areas should be revised.

The district should revise the management structure in the trades areas to more evenly distribute supervisory responsibilities. Action Plan 8-9 details the steps the district should take. Implementing this recommendation will result in a savings of \$300,600 over a five-year period.

Action Plan 8-9

We recommend that the district revise the management structure in the trades areas.¹

Action Needed	Step 1.	Combine the management of trades functions so that each trades manager is responsible for between 15 and 22 employees.
	Step 2.	Move trades forepersons to the field in trades groups with few workers, such as plumbing and painting.
Who Is Responsible	Director, Facilities Services	
Time Frame	January 1, 2004	

¹ This Action Plan will impact collective bargaining contracts.

² This might most easily be accomplished by combining painting and roofing with small engine repair and utility maintenance under the direction of one trade manager. If feasible, the district could eliminate one trade manager position.

Source: Berkshire Advisors, Inc.

Another way the Facilities Services Department could minimize administrative layers and improve supervision in custodial management is to review the way it allocates custodial resources. The formula used to allocate custodial resources to schools is out of date and may need to be revised. As discussed in section 5, this formula does not take into account the age of the buildings, the number of students compared to the school’s capacity, or other factors relevant to custodial cleaning issues.³ An initial application of the *American School and University Magazine’s* custodial staffing formula, which suggests

³ For example, factors might include the square footage of various types of flooring material (i.e., carpets vs. tiles), the school type (i.e., high school vs. elementary), and the number of after school events held at the site over a given period of time.

a base rate of 21,429 square feet per custodian, shows the district actually exceeds the standard.⁴ However, modifying the custodial allocation formula to consider the building age (recommended in Section 5), implementing a task systems (recommended in Section 5) and improving custodial supervision (recommended in this section) may obviate the need to increase custodial staffing.

The staffing formula for trades staff also needs to be assessed. The current formula that is used to determine trades staffing needs is the Florida DOE’s standard of one trades worker for every 45,000 square feet modified for the trades work that the district outsources to private contractors. (The district uses outside contractors for specialty trades work and most large-scale trades jobs, such as exterior painting and uses district staff for more routine maintenance and for most projects inside school buildings.) The staffing assumptions on which this formula is based are not, on the surface, unreasonable but without additional analysis the district cannot determine whether or not the current staffing approach is cost-effective. In any case, staffing projections are based on budgetary constraints only, not on projected need from the five-year capital plan. Nor does the district consider building age when developing staffing projections. Consequently, a modified approach to evaluating the district’s trades staffing needs should be developed that links the district’s maintenance needs with staffing requirements.

The district should revise its formula for trades staffing to more accurately reflect actual work projections. Action Plan 8-10 details the steps the district should take.

Action Plan 8-10

We recommend that the district revise its formula for trades staffing based on actual work projections.

Action Needed	Step 1. Review the past year’s record of work orders by trades function to estimate a base level of service provided by facilities services. ¹
	Step 2. Develop estimates for completion time for each trade group for the next five years.
	Step 3. Project trades staffing needs based on estimates of workload in each area.
Who Is Responsible	Chief Financial & Business Officer; Director, Facilities Services; Trades Managers, Facilities Services
Time Frame	January 1, 2004

¹ This could be accomplished by random sampling as opposed to a full review of all work orders.

Source: Berkshire Advisors, Inc.

Best Practice 7: Using

The facilities department’s hiring and retention practices ensure that the department hires and maintains qualified staff.

A qualified, knowledgeable, stable group of employees is the cornerstone of any maintenance organization. Complete job descriptions that accurately reflect the knowledge, skills, abilities, duties, and responsibilities of every employee in the department are essential to the development of such a workforce. The job descriptions should be readily available to school district employees and applicants, meet the district’s needs, and they should have been developed by human resource professionals in cooperation with individuals having specific expertise in the job tasks to be performed. Districts should establish competitive compensation to ensure that they can attract and retain qualified candidates. Compensation

⁴ This formula is used here only as an illustration that the district should review the formula it currently uses. Other Florida school districts have managed to effectively clean their schools with less than one custodian for every 21,429 square feet. In addition, implementation of a task system as suggested by Action Plan 8-7 should also impact the district’s custodial staffing analysis. The point is that the district should develop a more sophisticated formula that takes other factors into account as well.

includes salary and benefits, such as health, vacation, and retirement benefits. Districts should establish procedures to ensure that personal and professional references are obtained and contacted.

The Sarasota County School District's Facilities Services Department does an effective job of hiring staff. In particular, the department follows the district's written procedures for recruiting, such as providing a detailed job description, posting the job announcement internally, placing ads in newspapers, and verifying references and employment history. In addition, the department has taken proactive steps to address identified problems in its personnel management systems. For example, the district recently hired a consultant to overhaul all of the organization's position descriptions. This process included obtaining feedback from the employees who were in the jobs at the time. The board approved the updated position descriptions in September 2001. These job descriptions have been posted on the district's website to ensure that they are accessible to potential job applicants.

Best Practice 8: Using

The Facilities Services Department provides a staff development program that includes appropriate training for maintenance and operations staff to enhance worker job satisfaction, efficiency, and safety.

Training ensures that school district employees understand the scope of their responsibilities and performance expectations, and serves to update skills and knowledge necessary to effectively and efficiently carry out their duties. The sophistication of the maintenance employee training plan, training methods, and documentation of training may vary according to the size of the district. However, maintenance training should address custodial operations, grounds maintenance, and specialized trades and should be tailored to the needs of the specific function. In addition, training in maintenance related activities such as operating procedures, use of tools, proper lifting techniques, work place safety, hazardous materials handling, and emergency procedures should be required for all employees. A district can use a variety of training sources available to it including vendors and manufacturers of their supplies and equipment, contract trainers, and professional association meetings. School districts also should take advantage of free training materials and programs available through the Florida Department of Education (DOE), subscribe to publications, and maintain memberships in organizations that provide information on new technologies, equipment, and procedures. Training programs should include an evaluation component so that employee feedback can be used to improve future training.

The Sarasota County School District has demonstrated a strong commitment to ensuring its maintenance and custodial staff are adequately trained. This commitment is reflected in the amount of training Facilities Services Department staff has actually received. For example, over 84% of all custodians have had some training in the last two years. The average number of hours of training each custodial employee received over this period is 29.4. In addition, all new custodians receive on-the-job training by the lead and head custodians. The district's commitment to the professional development of its maintenance employees is also demonstrated by the fact that the district pays for membership in the Florida Educational Facilities Planners Association and the National Safety Council. The department's health and safety specialist is also a member of several health and safety organizations including the American Society of Safety Engineers. The department also subscribes to several specialty trade publications and distributes these publications to maintenance staff.

RESOURCE ALLOCATION AND UTILIZATION

Best Practice 9: Using

The district has developed an annual budget with spending limits that comply with the lawful funding for each category of facilities maintenance and operations.

Like most other organizations, school districts have limited funds and therefore, they must set budget priorities. A school district's budget allocation decisions should reflect its priority goals and objectives. These goals and objectives (which should be part of a strategic plan) may either be explicitly stated in the budget or may be reflected in changes in allocations that are concurrent with the shifting priorities. A school district budget should allocate sufficient resources to ensure that its plant operations and maintenance needs are adequately funded and rely on dollars that are raised and expended in accordance with Florida law. Work force, supplies, equipment, training, and the technology to support the maintenance program are essential budget considerations. The budget should be based on assessments of the physical condition of the district's educational and ancillary facilities, maintenance and custodial staffing standards, historical data, employee input, and projects identified in the strategic and five-year work plans. The annual budget should address long-term goals for maintaining and operating district facilities, recurring maintenance tasks such as preventive maintenance, and provide reasonably adequate funding to avoid the accumulation of significant deferred maintenance projects. The budget also should provide for the correction of deficiencies identified in the annual safety, casualty, and fire safety inspection reports.

The Sarasota County School District identifies and budgets capital and operations projects by school and does a good job of prioritizing these projects based on health and safety issues and financial constraints. Categories of funds are segregated and tracked accordingly. The annual budget reflects the department's assessment of long-term maintenance and operating needs based on the annual "asset preservation" process conducted with the principals. While budget constraints affect the department's ability to address all deferred maintenance needs, the district addresses most planned maintenance activities through the budget process. The district forecasts some preventive maintenance during the budget process, such as for roofing, HVAC, air filter change and elevator service, but the budget process is mostly driven by significant deferred and corrective maintenance items.

We recommend that the district establish a process for analyzing the costs and benefits of shifting some deferred maintenance resources to additional preventive maintenance practices, such as for painting. Up-front costs for instituting preventive maintenance programs may result in significant long-term savings. The district might go about this analysis by comparing the average cost of certain tasks at different age intervals based on actual historical data. Such analysis will assist the district in both establishing an optimal time frame for certain maintenance functions, and to determine if cost savings would justify implementing a scheduled maintenance plan.⁵

⁵ For example, in the area of painting, the department should analyze the average cost of painting building exteriors at between 7 and 10 years compared to the average cost for buildings painted after longer intervals. By projecting out the two approaches over, say, a 20-year period, the district can better determine if the added cost of more frequent painting is more or less cost-efficient.

Best Practice 10: Using

The district accurately projects cost estimates of major maintenance projects.

The cost of major maintenance projects can be a substantial expense for a school district, and therefore, must be effectively managed.⁶ A district can do this in a number of ways. For instance, cost estimates for these projects should be developed considering experience with prior similar projects, current estimating cost standards, local market conditions, and an inflation factor for multiyear projects. A district also should be realistic in its project estimates so that once the five-year work plan is adopted, it is a valid indicator of the work that will actually be accomplished, and the dollars that will both be needed, and available, in the plan's out years.

The Sarasota County School District completes most large-scale projects through the use of outside contractors. Cost estimates for large projects are usually based on costs of contracts already in place, with specified costs for materials and service. As a result, there is little variation between projected and actual costs. This aggressive use of front-end competitively bid contracts with set pricing is an effective way to accurately predict project costs. The district adequately accounts for inflation during its annual budgeting process.

Best Practice 11: Using

The district maintains an adequate maintenance reserve fund for emergency expenditures.

A well-managed school district has funds available to address unanticipated or emergency contingencies that may arise during the fiscal year. The age of the facilities and equipment, the repair history of major systems such as HVAC and roofs, area climatic conditions, and the effectiveness of the district's preventive maintenance program are considerations that will help determine the amount of a maintenance reserve fund. Overall, the district's budgetary policy must be flexible to ensure funding of unforeseen maintenance needs that could adversely affect the district's mission.

The Sarasota County School District takes a number of approaches to ensure that it has adequate reserves for emergency maintenance expenditures. First, the district includes a projection for emergencies as part of each specific maintenance fund account, such as health and safety, roofing, and HVAC. The percentage amount for each account is based on past years' experience. In addition, there is a district-wide allocation for "asset preservation." This account—also referred to as the "Director's Fund"—is a true emergency fund used only to address emergencies in funding account categories that have exhausted their funds. The amount in this asset preservation account is currently set at \$300,000. (Funds remaining in the account at the end of the year roll over to the next program year, but they do not accumulate.) The department also has the authority to shift funds allocated to low priority items (such as renovations) when emergencies occur. These budgetary mechanisms together are adequate to address the district's unforeseen emergency maintenance costs.

Best Practice 12: Using

The Facilities Services Department minimizes equipment costs through its purchasing practices.

Sound purchasing practices foster competition, which yields the best pricing for goods and services. A district should not only establish purchasing policies and procedures that meet the requirements of Florida law but also ensure cost-efficient purchasing practices. The purchasing policies and procedures must be in a purchasing manual that is readily available to employees and the public. Periodically the district

⁶ Individual projects that are beyond the scope of routine maintenance work are considered major maintenance projects.

should conduct cost comparisons to determine whether purchasing practices have minimized costs. Consideration of long-term equipment operating and maintenance costs, inflation, and the cost-effectiveness of repair or refurbishment of existing equipment should be a part of the cost projections made for replacement equipment.

The Sarasota County School District takes a number of steps to control equipment costs through its purchasing practices. In particular, the district's front-end bidder qualifications processes are very effective at ensuring the district uses qualified suppliers and contractors and that it minimizes purchasing costs. The district also makes effective use of volume purchasing as evidenced by the fact that volume discounts are often reflected in vendor bids. In addition, the district has established an effective process to weigh expected future equipment repair costs against the cost of replacing equipment when making purchase decisions.

Best Practice 13: Using

The district provides maintenance and operations department staff the tools and equipment required to accomplish their assigned tasks.

To be efficient and effective in completing their day-to-day activities, maintenance and operations employees require a wide selection of common tools and equipment. Specialty tools may be required to accomplish unplanned or unusual projects. A district should have procedures in place to ensure that maintenance and operations employees have access to the right tools to accomplish their duties. Most maintenance departments have an inventory of commonly used tools that are available for day-to-day use, but usually find it more cost-effective to rent less frequently used specialty tools. Some districts provide small hand tools while other districts require the employees to provide their own. Districts should have written operating procedures that outline acquisition, use, and return of tools, parts, materials, and other equipment required for the day-to-day work and for special or emergency projects.

The Sarasota County School District does a good job of making sure that maintenance staff has access to the tools and equipment they need to be effective. For example, trades personnel receive a \$200 per year tool allowance for hand tools that are used to supplement the major tools and equipment provided by the district. In addition, while the district owns some specialty equipment—large state-of-the-art cabinet making machines, for example—more often the department uses alternative means (such as blanket purchase orders for equipment rental) for major specialty equipment.

Best Practice 14: Using

The district uses proactive maintenance practices to reduce maintenance costs.

An effective proactive maintenance program can reduce maintenance and operations costs, reduce service outages, and extend the useful life of expensive building systems. Therefore, a district should have proactive maintenance policies that include the continuing evaluation of building systems and the costs to maintain them, the development of district-wide equipment and building system standards, preventive maintenance programs, and the surplusing of property. Evaluative information developed by the maintenance department can be used to recommend standard building systems, which are cost-efficient, for future construction projects. Standardizing equipment and building systems reduces employee training and avoids the costs of maintaining multiple parts inventories. Standards should be developed for HVAC, energy management controls, roofing, plumbing fixtures, mechanical and electrical equipment, door hardware, the security and fire alarms, and commonly used finishes such as paint, carpet, and resilient flooring. While larger districts may need a computerized preventive maintenance program to schedule and track work orders, smaller districts may find paper-based systems cost-effective and

sufficient for their level of activity. In addition, school districts should have policies and procedures in place to properly identify and dispose of surplus property in the most cost-effective manner.

The Sarasota County School District's Facilities Services Department is proactive in its effort to reduce maintenance costs. Notably, it works to control future maintenance costs through active participation in the capital planning process. Department managers formally comment on the maintenance implications of all plans prior to their being finalized. The department has also established effective preventive maintenance programs in some areas including programs for roofing, HVAC, air filter changing, and elevator service. There are several other areas, however—such as painting and paving. Where a preventive maintenance program could further reduce long-term maintenance costs.

We recommend that the District expand their preventive maintenance programs to other maintenance areas such as painting and paving. Up-front costs for instituting preventive maintenance programs in these areas should result in long-term savings. To decide what level of preventive maintenance is appropriate the department perform a risk/cost analysis. The results of this analysis can then be used to determine what level of preventive maintenance is warranted by comparing future preventive and corrective maintenance costs on a present value basis.

Best Practice 15: Using

The Facilities Services Department identifies and implements strategies to contain energy costs.

A comprehensive energy management plan guides a school district in ways to lower energy use and utility costs. Plan development should be a collaborative effort of district stakeholders including maintenance employees, custodians, site-based administrators, instructional personnel, utility providers, and other experts on energy conservation. The district's energy manager should contact peer districts, state and local agencies, utility providers and other stakeholders to identify resources available to aid the district in their energy management efforts. The energy management plan, at a minimum, should provide incentives to schools to reduce energy costs, provide for energy audits, implement strategies for effective demand-side energy management, and take advantage of energy rebates or other options to lower rates, which are offered by utility providers. Maintenance administrators should analyze the energy management system's reports and assess major building system conditions regularly to identify anomalies indicating problems that need to be addressed.

The Sarasota County School District has taken a number of effective steps to control energy costs. The district's energy management program includes collaborative efforts with the local utility company. In addition, the district participates in an energy rebate program and contracts with a private energy management firm for its energy controls and software. The energy management program includes equipping schools with thermal storage units that allow the schools to create ice at night—when energy costs are lower—and to use that ice to cool the schools during the daytime—when energy costs are high. This program has been implemented at most of the district's schools. The department has also established a written energy management plan that establishes several broad energy policies.

While the district has taken major steps to address energy consumption and obtain rebates, addition savings may be obtained by developing a more detailed energy management manual. This manual would help school administrators by providing instructions regarding the use of window shades during warm and cold weather based on the geographic orientation of school buildings, optimal watering schedules for the grounds, and other simple instructions that would help reduce energy costs.

We recommend that the district develop a more detailed energy management manual that provides guidance to school administrators and other district building users in policies and procedures that can reduce energy usage costs.

Best Practice 16: Using

The district has an energy management system in place, and the system is maintained for maximum effectiveness.

Ever-increasing energy costs and limited budgets make it advantageous for school districts to install comprehensive, modern energy management systems (EMS), which can substantially reduce energy costs. An EMS enables a school district to remotely operate and monitor HVAC equipment. The EMS controls allow the district to maintain facilities at uniform temperature settings during established operating hours. The system should be capable of generating reports that can help to identify inefficiently operating building systems that may need service or upgrading. Because total replacement or installation of a new energy management system can be an expensive undertaking, a school district should budget for energy control enhancements and system replacements in its five-year work plan until an effective system is in place.

The Sarasota County School District's success in controlling energy costs results, in part, from the effective energy management system it has in place. This system gives the Facilities Services Department's energy management unit the ability to remotely monitor energy usage on all district buildings from an internet-linked computer system. The system also allows the department to diagnose problems in advance of HVAC work crews responding to work orders and/or emergency calls. The district also provides excellent training in the use and management of this system. Indeed, the department recently implemented an on-the-job training program whereby one HVAC trades person is assigned to the energy management specialist for one month. (Each HVAC trades staff will rotate through the training program on an ongoing basis.) The specialist trains the trades person in the use of the computer system as a diagnostic tool and in how to change electronics parts for the monitoring system. All HVAC trades technicians are equipped with laptop computers, so once trained, they can better access and diagnose problems.

The district has also exhibited a willingness to make appropriate investments to control energy costs. To reduce air conditioning expenses—the primary cost driver for district energy usage—a number of schools have been equipped with thermal storage units. Energy costs at these schools are averaging roughly \$2,000 per month less than before the thermal storage units were installed. The district is adding thermal storage units at the rate of about one per year and intends to equip all district schools with the thermal units where it is cost effective to do so.

Best Practice 17: Not Using

The district does not regularly review maintenance and operations costs and services and evaluate the potential for outside contracting and privatization.

Maintenance administrators should consider opportunities for privatizing services, weighing the potential advantages and disadvantages of using in-house resources against alternative service delivery methods. Outsourcing may be cost-effective and allow the district to reduce, reassign, or make better use of in-house staff. An annual review of services to determine if alternative delivery methods are more cost-effective should be an ongoing, established function of the department. These evaluations should be in writing and available to the school board and the public for review. If a service is outsourced, periodic written follow-up analyses should be made to confirm the effectiveness of the service and to verify that

any anticipated cost savings have actually developed. Criteria that may support outsourcing services include opportunities to save money and management time, the opportunity to add specialized skills or training not available in-house, difficulty in hiring qualified employees, and the opportunity to improve the overall quality of the maintenance and operations function.

The Sarasota County School District’s current policy is to minimize contracted services for most projects that will take place inside the school buildings. This policy is based on maintaining the highest level of security for students and staff by keeping nondistrict employees outside of occupied school buildings. Such projects are not generally considered for outsourcing. In addition, existing labor contracts restrict the district’s ability to contract for custodial services. The district can use contracted custodial services only in nonschool sites. The district often uses outside contractors for large projects, specialty projects, and for emergency projects when district capacity is stretched too thin.

However, the district does not complete regular, formal evaluations of existing services and activities and assess whether outside contracting or other alternatives would be more cost-effective because it has not established the performance standards needed to support such an analysis. For example, no cost comparisons are done to determine if any work order could have been done more cheaply in another way. As the department brings additional capabilities on line with its new work order system, it should implement ongoing comparisons between contractor services and in-house provision of similar work orders to determine which is more efficient. In addition, the district should assess the cost savings, if any, that might result if the restriction on using outside contractors to work inside school buildings were loosened. If the potential savings are significant, the district might explore ways to ensure the security of students and staff in a building while also using outside contractors.

The district should periodically evaluate the costs of its maintenance programs and compare those costs with the cost of alternative service delivery methods. Action Plan 8-11 details the steps the district should take.

Action Plan 8-11

We recommend that the district periodically evaluate the costs of its maintenance programs to determine if they can be accomplished for lower cost in some other manner.

Action Needed	<p>Step 1. Calculate the total cost for completing each similar type of work order by contracted labor category and in-house labor category.</p> <p>Step 2. Identify alternative methods of work order completion for each category and estimate the costs of completing the same level and quality of work under those alternative methods.</p> <p>Step 3. Switch service delivery mechanisms in areas where a clear cost savings projection is evident.</p> <p>Step 4. Use the analysis performed in Steps 1, 2 and 3 to determine whether the policy restricting the use of outside contractors in schools should be maintained or loosened on a selective basis.</p>
Who Is Responsible	Director, Facilities Services; Business Manager, Facilities Services
Time Frame	June 30, 2004 ¹

¹ The district cannot undertake this recommendation until Step 1 of Action Plan 8-10 has been completed and the district has access to more detailed performance data.

Source: Berkshire Advisors, Inc.

Best Practice 18: Not Using

The district's computerized control and tracking system is not currently using system capabilities to accurately track work orders.

Work order systems enable school districts to effectively track maintenance work orders and warehouse inventory, and improve maintenance response time and efficiency. Larger school districts should use an electronic work order system to coordinate day-to-day activities including workflow, personnel, budget, and inventory associated with maintaining educational facilities.⁷ There are several types of computerized maintenance management systems available, some specifically designed for a single organization as well as “off the shelf software.” Any system in use should include work order control, scheduling, assignment and billing, inventory, and preventive maintenance scheduling and record keeping as integrated functions. The system should provide statistical information that can be used to assist managers in determining employee productivity, and in developing cost reports and estimates, equipment histories, and facilities condition assessments, while interfacing with other district financial programs. District administrators should receive sufficient training to maximize the potential of the system.

The Sarasota County School District's Facilities Services Department implemented a new work order system about one year ago. The primary reason the district implemented the system was to improve the delivery of services to schools, and from this perspective the system has been a success. Implementing the system improved the ability of managers to track individual work orders. This has greatly reduced the number of work orders that get re-entered (because they have not yet been completed), and it has speeded up the completion rate.

While the district's work order system has effectively served the purpose for which it was acquired, the district's computerized control and tracking system is not currently using system capabilities to accurately track work orders because the department currently makes only limited use of the system as an analytic and management tool. For example, the system has a number of capabilities that the department does not use. These include inventory tracking and controls, cost and time estimates, “windshield” time tracking, and other features. The district plans to implement some of these features at a later time. In the meantime, however, the system's usefulness as an analytical tool is limited.

The district should enable several tracking functions of its work order system in order to monitor the efficiency and effectiveness of its maintenance programs. Action Plan 8-12 details the steps the district should take. The district could implement this action plan at a one-time cost of \$30,000. This amount reflects the estimated cost of hiring a management information system consultant to identify additional work order system needs, modify the system and train key staff in system changes.

⁷ Automated work order and billing systems are not required by all districts to ensure the effective and efficient operation of their maintenance department. Smaller districts with a limited number of daily work order requests and school buildings may find a well-designed paper-based system provides the same type of control as a computerized system in a larger district.

Action Plan 8-12

We recommend that the district implement key efficiency and effectiveness tracking capabilities of its work order system.

Action Needed	Step 1.	Engage a computer consultant familiar with the district's work order database system to modify the system and train staff in the use of the new features.
	Step 2.	Begin routine cost and time estimates for all work orders.
	Step 3.	Begin entering actual total cost and time figures for all completed work orders.
	Step 4.	Track actual "productive" work time against total pay period time for each trades area and category of work order.
Who Is Responsible	Director, Facilities Services; Business Manager, Facilities Services; Trades Managers, Facilities Services	
Time Frame	June 30, 2004	

Source: Berkshire Advisors, Inc.

However, managers can and do create and use their own reports for monitoring the work in their trades areas and at the schools for which they are responsible. These "Trade Summary Reports" display all work orders, completion status, date of completion (if applicable), entry date, and a brief description of the work to be performed. There is little doubt that these reports, in their current form, have improved performance. However, the usefulness of these reports is limited for two reasons. First, because cost and time estimates are not routinely entered into the system, it is impossible for managers to use the system to project resources needed to complete outstanding work orders. (The final cost for some work orders that have been entered into the system is \$0.0 because managers have not entered this information.) Second, because of a significant time lag between the time work orders are actually completed and when they are closed out in the system, it is also impossible to obtain an accurate report on what the work order backlog actually is.

Given existing budget constraints, the district should examine existing staffing workload and priorities, and if possible, reassign existing clerical staff to perform data entry to close out completed work orders. However, if the district cannot reassign staff, it may choose to invest in a new position. Action Plan 8-13 details the steps the district should take. The district could implement this plan with \$146,700 in additional resources over the next 5-years if a new position is warranted.

Action Plan 8-13

We recommend that the district use clerical staff to complete the data entry to close out completed work orders in the system more quickly.

Action Needed	Step 1.	Reprioritize work or hire a dedicated data entry person to close out all work orders in the system on a permanent basis to free the trades managers from this responsibility.
	Step 2.	Establish a process for trades managers to routinely conduct quality control checks of the work order closeouts to ensure accuracy of the data entry.
Who Is Responsible	Director, Facilities Services; Business Manager, Facilities Services	
Time Frame	January 1, 2004	

Source: Berkshire Advisors, Inc.

Best Practice 19: Using

The Facilities Services Department has a system for prioritizing maintenance needs uniformly throughout the district, but formalizing a priority system could improve the department's ability to track work orders.

All school district maintenance departments must establish a work order system that prioritizes maintenance requests while equitably allocating maintenance resources. Work orders submitted by district employees define the scope of a maintenance department's reactive workload. Additional services provided by the department keep the facilities clean and operating efficiently. Written guidelines and operating procedures should be established for emergency, routine, and preventive maintenance activities. The guidelines should define what is to be considered an emergency, the individuals responsible for reacting to the emergency, and the appropriate response to the emergency. Serious problems that affect the life, safety, or health of any student, district employee, or the public or an event that, if ignored, renders a facility unusable are to be considered an emergency. Finally, the priority system should address routine and ongoing preventive maintenance activities in a way that ensures all district facilities receive equal attention and service for all of their needs.

The Sarasota County School District has developed an overall system for prioritizing maintenance needs. The highest priority is placed on work orders that affect health and safety work, and indeed these work orders are cleared at a faster rate than other work orders. The overall prioritization of other maintenance needs occurs annually (during the annual asset preservation meetings the facilities services staff hold with principals) and these priorities are then re-adjusted based on monthly or more frequent meetings with principals. While this process for setting priorities is generally sound, the management and communication styles of some trades managers are more effective than others which has resulted in a perception among a few principals that some schools receive an inappropriate share of maintenance services and attention. Establishing a more systemic process for receiving feedback from principals would ensure the needs of all schools are effectively communicated to the director of facilities services and he can ensure that any imbalances in the delivery of maintenance services are addressed. By implementing Action Plan 8-4, the director of facilities services can use customer feedback to help ensure maintenance needs are prioritized uniformly throughout the district.

The department's work order system would be significantly improved with a more effective use of the prioritization capabilities already built into the system. Currently, anyone entering a work order into the system can categorize the priority (1 through 4, with 1 being the highest priority). Some schools, however, enter all their work orders as a high priority thinking, incorrectly, that doing so will result in the work orders being completed more quickly. In fact, this practice prevents managers from using the work order system to sort work orders by priority status. Instead, the priority status of work orders is determined on a case-by-case basis, as "emergency" calls come in, by the call taker, the trades foreperson and/or the trades manager.

We recommend that the district establish clear categories of work order prioritization, codify the priority categories in a written procedures manual, and train all district employees who enter work orders into the system to ensure that priority status is applied appropriately. To implement this recommendation, the district should first analyze the frequency of the categories of work orders via a random sampling process. Based on this initial analysis, the district should define the categories in such a way that they reflect the district's ability to deal with them. For example, if only five percent of historical work orders were truly "emergency" in nature, the defined Category 1 should result in roughly five percent of *future* work orders carrying that categorization. Finally, once implemented, the district should periodically monitor the usage of the categories and re-train system users if miscategorizations are occurring too frequently.

HEALTH AND SAFETY

Best Practice 20: Using

The district’s policies and procedures clearly address the health and safety conditions of facilities.

Florida law requires school districts to develop policies and procedures establishing a comprehensive program of safety and sanitation to protect the occupants of educational facilities.⁸ All districts are required to conduct annual inspections of each educational and ancillary plant to determine compliance with the sanitation and casualty safety standards prescribed in the rules of the State Board of Education. Florida law also requires that inspectors certified by the Division of State Fire Marshal conduct annual fire safety inspections. Districts should have established written health and safety standards and ensure that documented evaluations are made of the condition of each educational plant and ancillary facility. Districts should have a written plan for maintaining healthy indoor air quality, which includes monitoring of indoor air quality and corrective action plans necessary to address indoor air quality issues.

The Facilities Services Department does a good job monitoring and addressing potentially adverse health and safety conditions at district facilities. In particular, the department’s health and safety specialist evaluates all buildings each year, documents in writing any health and safety issues that are identified, and works with department managers to address any deficiencies that are identified. The district also has a written procedure for dealing with indoor air quality issues. Remediation of such issues involves both the HVAC crew, which cleans and repairs mechanical devices, and the health and safety unit, which diagnoses, tests, and conducts follow up evaluations.

While the district does have written policies and procedures covering most health and safety issues, written standards are not in place for some areas including asbestos handling and removal and equipment operation.

We recommend that the district establish written policies and procedures for all health and safety related operational areas and ensure that relevant staff members have access to them. Implementation of this recommendation will be included as part of Action Plan 8-5.

Best Practice 21: Using

The district complies with federal and state regulatory mandates regarding facility health and safety conditions.

A school district, regardless of size, should have written policies and procedures that direct the district’s compliance with state and federal regulations governing health and safety conditions within its facilities. The district should have established health and safety training programs in place for their maintenance and custodial work force which complies with federal and state regulations such as the EPA guidelines, Occupational Safety and Health Administration’s (OSHA) Regulations—29 CFR, hazardous materials handling, the proper reporting of accidents, and asbestos handling and abatement. Focused training on the safe use of specialized equipment and building systems should be delivered to all custodial and maintenance employees and supervisors.

⁸ See s. 1013.12, *F.S.*

Facilities Maintenance

The Sarasota County School District has taken a number of proactive measures to ensure a safe and healthy workplace. In particular, the district has focused considerable attention to training workers on health and safety related issues. For example, the district conducts annual OSHA training, and staff attendance at this training is satisfactory. In addition, the annual training maintenance and custodial staff receive covers a range of health and safety related topics including electrical safety, lock out/tag out, blood borne pathogens, and other relevant safety topics. Both training courses were offered on two separate dates, and all employees were required to attend. In addition, the department's health and safety specialist views himself—and is viewed by others—as a safety “watchdog” for the district. All evidence suggests that the work of this unit is taken seriously and is supported by management. The department also recently formed a “Safety Steering Committee” which meets weekly. Anyone can submit safety issues to the committee for review. Minutes from the committee meetings—and policy and procedure changes that result from the group's efforts—are circulated to all facilities maintenance staff in a timely manner.

Best Practice 22: Using

The district is aware of and prepared for the permitting and inspection requirements of the Florida Building Code.

Effective July 1, 2002, the State Requirements for Educational Facilities (Rule 6A-2.001, *Florida Administrative Code*) were merged into the new Florida Building Code (FBC). Under the FBC school districts are exempted from regulation by other local authorities and are required to follow a single state code. They are allowed to review project plans, issue their own building permits, conduct required building inspections, issue certificates of occupancy and generally perform as the local governing authority had in the past.

The department has taken effective steps to ensure permitting and inspection requirements are met. First, staff has been trained on the new FBC requirements and are also familiar with other applicable state and local requirements including those relating to the need for construction permits. To ensure such permits are received before work begins, work orders requiring permits are separated out as they come in. Until the needed permit has been received (acquiring the permits is a responsibility of the Construction Services Department) and a copy of the permit is attached to the work order, work will not proceed. Likewise, no outside contracts for work orders requiring permits are paid unless a copy of the permit is attached to the work order. The district also uses a computer database for tracking permitting activity and inspection records for permits.